# City of San Carlos Focused General Plan Update
# Draft Environmental Impact Report
# SCH# 2021120442

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# LIST OF ACRONYMS AND ABBREVIATIONS

| List of Acronyms and Abbreviations | |
|---|---|
| **Acronym** | **Definition** |
| AB | Assembly Bill |
| ABAG | Association of Bay Area Governments |
| ACC | Advanced Clean Cars |
| ACHP | Advisory Council on Historic Preservation |
| ACOE | U. S. Army Corps of Engineers |
| ADA | Americans with Disabilities Act |
| ADT | Average daily trips |
| ADU | Accessory Dwelling Units |
| AF | Acre-feet |
| AFY | Acre-feet per year |
| AIA | Airport Influence Area |
| AMI | Area Median Income |
| APS | Alternate Planning Strategy |
| APSA | Aboveground Petroleum Storage Act |
| AQMP | Air Quality Management Plan |
| AQP | Air Quality Plan |
| BAAQMD | Bay Area Air Quality Management District |
| BACT | Best Available Control Technology |
| BAU | Business-as-usual |
| BART | Bay Area Rapid Transit |
| Bay Area Basin | San Francisco Bay Area Basin |
| Bay Plan | San Francisco Bay Plan |
| BCDC | Bay Area Conservation and Development Commission |
| bgs | Below ground surface |
| BMPs | Best management practices |
| BPMP | Bicycle and Pedestrian Master Plan |
| BRT | Bus rapid transit |
| CAA | Clean Air Act |
| CAAQS | California Ambient Air Quality Standards |
| CAFE | Corporate Average Fuel Economy |
| CalEEMod | California Emissions Estimator Model |
| CalEPA | California Environmental Protection Agency |
| CAL FIRE | California Department of Forestry and Fire Protection |
| CALGreen | California Green Building Standards Code, Title 24, Part 11 |
| CalOSHA | California Occupational Safety and Health Administration |
| Caltrans | California Department of Transportation |

| List of Acronyms and Abbreviations | |
|---|---|
| **Acronym** | **Definition** |
| Cal Water | California Water Service Company |
| CAP | Bay Area Clean Air Plan |
| CAPCOA | California Air Pollution Control Officers Association |
| CARB | California Air Resources Board |
| CBC | California Building Code |
| CBSC | California Building Standards Commission |
| CCA | Community Choice Aggregate |
| CCR | California Code of Regulations |
| CDFW | California Department of Fish and Wildlife |
| CDOC | California Department of Conservation |
| CDPH | California Department of Public Health |
| CEC | California Energy Commission |
| CEQA | California Environmental Quality Act |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act |
| CESA | California Endangered Species Act |
| CFC | Chlorofluorocarbon |
| CFP | California fully protected |
| CFR | Code of Federal Regulations |
| CFV | Clean Fuel Vehicle |
| CHLs | California Historical Landmarks |
| CHP | California Highway Patrol |
| CLUP | Comprehensive Airport/Land Use Plan |
| CMA | Congestion Management Agency |
| CMAP | Climate Mitigation and Adaptation Plan |
| CNDDB | California Natural Diversity Database |
| CNPS | California Native Plant Society |
| CNRA | California Natural Resources Agency |
| CGC | California Government Code |
| CHRIS | California Historical Resources Information System |
| $CH_4$ | Methane |
| CO | Carbon monoxide |
| $CO_2$ | Carbon Dioxide |
| $CO_2e$ | Carbon Dioxide Equivalent |
| CPUC | California Public Utilities Commission |
| CRHR | California Register of Historic Resources |
| CRPR | California Rare Plant Rank |
| CSS | Community Safety and Services |
| CSSC | California Species of Special Concern |
| CUPA | Certified Unified Program Agency |

| List of Acronyms and Abbreviations | |
|---|---|
| **Acronym** | **Definition** |
| CWA | Clean Water Act |
| CWPP | Community Wildfire Protection Plan |
| C/CAG | City/County Association of Governments |
| C/CAG-VTA | City/County Association of Governments of San Mateo County-Santa Clara County Valley Transportation Authority |
| DAC | Disadvantaged Communities |
| dB | Decibels |
| dBA | Decibels A |
| DEIR | Draft Environmental Impact Report |
| DEM | Department of Emergency Management |
| DNL | Day/night average sound level |
| DPM | Diesel particulate matter |
| DTSC | California Department of Toxic Substances Control |
| EIA | Untied States Energy Information Administration |
| EIR | Environmental Impact Report |
| EPCRA | Federal Emergency Planning and Community Right-To-Know Act |
| EO | Executive Order |
| EOC | Emergency Operations Center |
| EOP | Emergency Operations Plan |
| ESPS | Environmental Safety and Public Services |
| ETWU | Estimated total water use |
| EV | Electric Vehicle |
| FE | Federal endangered |
| FEMA | Federal Emergency Management Agency |
| FESA | Federal Endangered Species Act |
| FHWA | Federal Highway Administration |
| FIRMs | Flood Insurance Rate Maps |
| FT | Federal threatened |
| FTA | Federal Transit Administration |
| GGNPC | Golden Gate National Parks Conservancy |
| GHG | Greenhouse Gases |
| GPD | Gallons per day |
| GPU | General Plan Update |
| GVWR | Gross vehicle weight rating |
| GWh | Gigawatt hours |
| GWMP | Groundwater Management Plan |
| GWP | Global Warming Potential |
| HAP | Hazardous Air Pollutants |
| HCD | California Department of Housing and Community Development |

| List of Acronyms and Abbreviations | |
|---|---|
| **Acronym** | **Definition** |
| HCP | Habitat Conservation Plan |
| HESIS | Hazard Evaluation System and Information Service |
| HFC | Hydrofluorocarbon |
| HHW | Household hazardous waste |
| HMC | Housing Methodology Committee |
| HMIS | Hazardous Materials Inventory Statement |
| HMMP | Hazardous Material Management Plan |
| HMTUSA | Hazardous Materials Transportation Uniform Safety Act |
| HRA | High-Resource Area |
| HVAC | Heating, ventilation, and air conditioning |
| Hz | Hertz |
| $H_2S$ | Hydrogen sulfide |
| I | Interstate |
| IAQ | Indoor Air Quality |
| IARC | International Agency for Research of Cancer |
| ICS | Incident Command System |
| IEPR | Integrated Energy Policy Report |
| In/sec | Inches per second |
| IPCC | Intergovernmental Panel on Climate Change |
| ISG | Individual Supply Guarantee |
| ISTEA | Intermodal Surface Transportation Efficiency Act |
| ITE | Institute of Transportation Engineers |
| JADU | Junior Accessory Dwelling Unit |
| kg | Kilogram |
| L | Liter |
| LAFCO | San Mateo County Local Agency Formation Commission |
| lb | Pounds |
| LCFS | Low Carbon Fuel Standard |
| $L_{dn}$ | Day/night average sound level |
| $L_{eq}$ | Equivalent noise level |
| LEV | Low-Emission Vehicle |
| LHMP | Local Hazard Mitigation Plan |
| LID | Low Impact Development |
| LOS | Level of Service |
| LQG | Large Quantity Generators |
| LRA | Local Responsibility Area |
| LSAA | Lake or Streambed Alteration Agreement |
| LST | Localized Significance Threshold |
| LT | Long-term |

| List of Acronyms and Abbreviations | |
|---|---|
| **Acronym** | **Definition** |
| LUST | Leaking Underground Storage Tank |
| LZ | Lighting Zone |
| MAWA | Maximum applied water allowance |
| MBTA | Migratory Bird Treaty Act |
| MMBTU | Million British Thermal Units |
| MMCFD | Million cubic feet per day |
| MMRP | Mitigation Monitoring Reporting Plan |
| MND | Mitigated Negative Declaration |
| Mpg | Miles per gallon |
| MPO | Metropolitan Planning Organization |
| MPWD | Mid-Peninsula Water District |
| MROSD | Midpeninsula Regional Open Space District |
| MRP | Municipal Regional Permit |
| MT | Metric tons |
| MTC | Metropolitan Transportation Commission |
| MTZ | Mutual Threat Zone |
| $MTCO_2e$ | Metric tons of $CO_2$ equivalents |
| Mw | Moment Magnitude |
| MWh | Megawatt-hours |
| MY | Model year |
| $m^3$ | Cubic meter |
| NAAQS | National Ambient Air Quality Standards |
| NAGPRA | Native American Graves Protection and Repatriation Act |
| NAHC | Native American Heritage Commission |
| NCCP | Natural Community Conservation Plan |
| NEPA | National Environmental Policy Act |
| NFIP | National Flood Insurance Program |
| NFPA | National Fire Protection Association |
| NHPA | National Historic Preservation Act |
| NHTSA | National Highway Traffic Safety Administration |
| NIMS | National Incident Management System |
| NLEV | National low emission vehicle |
| NPDES | National Pollutant Discharge Elimination System |
| NPIAS | National Plan of Integrated Airport Systems |
| NO | Nitrogen oxide |
| $NO_2$ | Nitrogen dioxide |
| $NO_x$ | Oxides of nitrogen |
| NOAA | National Oceanic and Atmospheric Administration |
| NOAA Fisheries | National Oceanic and Atmospheric Administration National Marine Fisheries Service |

| List of Acronyms and Abbreviations | |
|---|---|
| **Acronym** | **Definition** |
| NOD | Notice of Determination |
| NOI | Notice of Intent |
| NOP | Notice of Preparation |
| NPPA | Native Plant Protection Act |
| NRHP | National Register of Historic Places |
| NTP | United State National Toxicology Program |
| NWI | National Wetlands Inventory |
| NWIC | Northwest Information Center |
| $N_2O$ | Nitrous Oxide |
| OEHHA | Office of Environmental Health Hazard Assessment |
| OES | Office of Emergency Services |
| OPR | Office of Planning and Research |
| OSFM | Office of the State Fire Marshal |
| OSHA | Federal Occupational Safety and Health Administration |
| OSP | Open Space Preserve |
| $O_3$ | Ozone |
| PCB | Polychlorinated biphenyl |
| PCE | Peninsula Clean Energy |
| PDA | Priority Development Area |
| PFC | Perfluorocarbon |
| PG&E | Pacific Gas & Electric |
| PHEV | Plug-In Hybrid Electric Vehicle |
| PM | Particulate matter |
| $PM_{2.5}$ | Fine particulate matter |
| $PM_{10}$ | Coarse particulate matter |
| PPA | Priority Production Area |
| ppb | Parts per billion |
| ppm | Parts per million |
| PPV | Peak particle velocity |
| Porter-Cologne | Porter-Cologne Water Quality Control Act |
| PRC | Public Resources Code |
| RCRA | Resources Conservation and Recovery Act |
| RHNA | Regional Housing Needs Allocation |
| ROG | Reactive organic gases |
| RPS | Renewable Portfolio Standard |
| RTP | Regional Transportation Plan |
| RWQCB | Regional Water Quality Control Board |
| RWS | Regional Water System |
| SAA | Lake or Streambed Alteration Agreement |

| List of Acronyms and Abbreviations | |
|---|---|
| **Acronym** | **Definition** |
| SAFE | Safer Affordable Fuel-Efficient |
| SB | Senate Bill |
| SBC | State Building Code |
| SBWMA | South Bayside Waste Management Authority |
| SCAQMD | South Coast Air Quality Management District |
| SCS | Sustainable communities strategy |
| SDG&E | San Diego Gas & Electric |
| SDWA | Safe Drinking Water Act |
| SE | State endangered |
| SEMS | Standardized Emergency Management System |
| SFHA | Special Flood Hazard Areas |
| $SF_6$ | Sulfur Hexafluoride |
| SHPO | State Historic Preservation Officer |
| SMARA | Surface Mining and Reclamation Act |
| SMCTA | San Mateo County Transportation Authority |
| SMCWPPP | San Mateo Countywide Water Pollution Prevention Program |
| SMGP | State Mining and Geology Board |
| SQG | Small Quantity Generators |
| SoCalGas | Southern California Gas |
| SOI | Sphere of Influence |
| $SO_2$ | Sulfur dioxide |
| $SO_4^{2-}$ | Sulfates |
| $SO_x$ | Oxides of sulfur |
| SP | Service Population |
| SRA | State Responsibility Area |
| SRO | Single room occupancy |
| SSMP | Sanitary Sewer Management Plan |
| ST | State threatened |
| ST | Short-term |
| STC | Sound transmission class |
| STLC | Soluble Threshold Limit Concentration |
| SVCW | Silicon Valley Clean Water |
| SWPP | Storm Water Pollution Prevention Plan |
| SWRCB | State Water Resources Control Board |
| TAC | Toxic Air Contaminants |
| TAZ | Traffic analysis zone |
| TCM | Transportation Control Measures |
| TCR | Tribal Cultural Resource |
| TDM | Transportation Demand Management or Transportation Demand Measures |

| List of Acronyms and Abbreviations | |
|---|---|
| **Acronym** | **Definition** |
| TEA-21 | The Transportation Equity Act of the 21st Century |
| TIA | Traffic Impact Analysis |
| TNC | Transportation network company |
| TNM | Traffic Noise Model |
| TRA | Transit-Rich Area |
| TRI | Toxic Release Inventory |
| TTLC | Total Threshold Limit Concentration |
| UCD ITS | University California Davis, Institute of Transportation Studies |
| U.S. | United States |
| USACE | United States Army Corps of Engineers |
| U.S.C. | United States Code |
| U.S. DOE | United States Department of Energy |
| U.S. DOT | United States Department of Transportation |
| U.S. EPA | United States Environmental Protection Agency |
| USFWS | United States Fish and Wildlife Service |
| USGS | United States Geological Survey |
| UWMP | Urban Water Management Plan |
| V. | Version |
| VHFHSZ | Very High Fire Hazard Severity Zone |
| VMT | Vehicle miles traveled |
| VOC | Volatile organic compounds |
| WDR | Waste discharge requirement |
| WETA | Water Emergency Transportation Authority |
| WMP | Waste Management Plan |
| WSA | Water Supply Assessment |
| WSCP | Water Shortage Contingency Plan |
| WUI | Wildland Urban Interface |
| WWTP | Wastewater treatment plant |
| ZEV | Zero Emission Vehicle |
| µg | Micrograms |
| % | Percent |
| °C | Degrees Celsius |
| °F | Degrees Fahrenheit |

# CHAPTER 1 INTRODUCTION

## 1.1 CEQA AND THE PURPOSE OF AN EIR

The City of San Carlos' (City or Lead Agency) proposes to comprehensively update the existing 2015-2023 Housing Element as required by state housing law, and make a focused amendment to the Community Safety and Services Element to address climate change resiliency planning as required by Senate Bill 379 and California Government Code section 65302(g), and minor amendments to the Land Use Element, Circulation and Scenic Highways Element, Environmental Management Element, and Noise Element for consistency. As the City is revising six General Plan elements (not all seven elements), these amendments are referred to as a Focused General Plan Update (GPU). The purpose of this Focused GPU is to update the City's existing 2015-2023 Housing Element to reflect new 6th cycle housing assignments (for the time period 2023-2031) and facilitate new housing growth within the City and to address new climate resiliency planning requirements in the Community Safety and Services Element, renamed as the Environmental Safety and Services Element as part of this project. It is important to note that the Land Use, Circulation and Scenic Highways, Environmental Management, and Noise Elements are being updated only to reflect and support the updated Housing and Environmental Safety and Services Elements. In addition, the City is proposing specific amendments to Title 18 of the San Carlos Municipal Code (Zoning Ordinance) and amendments to San Carlos' Zoning Map to remain consistent with the Focused GPU.

The adoption and implementation of a General Plan Update (GPU) is defined as a "project" and is subject to review under the California Environmental Quality Act (CEQA) 1970 (Public Resources Code, Section 21000 et. seq.), and the State CEQA Guidelines (California Code of Regulations, Section 15000 et. seq.). Accordingly, the City has prepared this environmental impact report (EIR) to assess the long range and cumulative environmental consequences that could result from adoption and implementation of the proposed Focused GPU. This report has been prepared in accordance with the CEQA Statutes and Guidelines and with the City's local rules and procedures for implementing CEQA. It was prepared by professional planning consultants under contract to the City. The City is the Lead Agency for the preparation of this EIR, as defined by CEQA (Public Resources Code, Section 21067, as amended), because it has primary discretionary authority with respect to adoption, amendment, and implementation of the proposed Focused GPU. The content of this document reflects the independent judgment of the City.

CEQA was originally enacted in 1970 and has been amended since. The legislative intent of these regulations is established in Section 21000 of the California Public Resources Code, as follows:

The Legislature finds and declares as follows:

a. The maintenance of a quality environment for the people of this state now and in the future is a matter of statewide concern.
b. It is necessary to provide a high-quality environment that at all times is healthful and pleasing to the senses and intellect of man.

c. There is a need to understand the relationship between the maintenance of high-quality ecological systems and the general welfare of the people of the state, including their enjoyment of the natural resources of the state.
d. The capacity of the environment is limited, and it is the intent of the Legislature that the government of the State take immediate steps to identify any critical thresholds for the health and safety of the people of the state and take all coordinated actions necessary to prevent such thresholds being reached.
e. Every citizen has a responsibility to contribute to the preservation and enhancement of the environment.
f. The interrelationship of policies and practices in the management of natural resources and waste disposal requires systematic and concerted efforts by public and private interests to enhance environmental quality and to control environmental pollution.
g. It is the intent of the Legislature that all agencies of the state government which regulate activities of private individuals, corporations, and public agencies which are found to affect the quality of the environment, shall regulate such activities so that major consideration is given to preventing environmental damage, while providing a decent home and satisfying living environment for every Californian.

The Legislature further finds and declares that it is the policy of the State to:

a) Develop and maintain a high-quality environment now and in the future, and take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state.

b) Take all action necessary to provide the people of this state with clean air and water, enjoyment of aesthetic, natural, scenic, and historic environmental qualities, and freedom from excessive noise.

c) Prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities and examples of the major periods of California history.

d) Ensure that the long-term protection of the environment, consistent with the provision of a decent home and suitable living environment for every Californian, shall be the guiding criterion in public decisions.

e) Create and maintain conditions under which man and nature can exist in productive harmony to fulfill the social and economic requirements of present and future generations.

f) Require governmental agencies at all levels to develop standards and procedures necessary to protect environmental quality.

g) Require governmental agencies at all levels to consider qualitative factors as well as economic and technical factors and long-term benefits and costs, in addition to short-term

benefits and costs and to consider alternatives to proposed actions affecting the environment.

A concise statement of legislative policy, with respect to public agency consideration of projects for some form of approval, is found in Section 21002, quoted below:

*The Legislature finds and declares that it is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required by this division are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects. The Legislature further finds and declares that in the event specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof.*

## 1.2 PURPOSE AND SCOPE

The proposed Focused GPU is a long-range planning program to guide the growth and development of residential housing within the City's corporate boundaries and to plan and prepare for increased environmental hazards from climate change. It is intended to communicate the City's vision for the future and to establish a policy framework to govern decision making concerning the physical development of the community and the protection of the public from environmental hazards. Although it will allow for an overall increase in housing development for the entire Project Area, the project would not, by itself, authorize any specific development project or other form of land use approval of any kind of public facilities or capital facilities expenditures or improvements.

The EIR is intended to serve as a public information and disclosure document identifying and analyzing those environmental impacts resulting from the project that are expected to be significant and describing mitigation measures and alternatives that could avoid or reduce significant adverse impacts and increase beneficial effects.

The City has prepared a Program EIR to analyze the potential environmental impacts of the Focused GPU. The advantages of a Program EIR include consideration of effects and alternatives that cannot practically be reviewed at the project-level, consideration of cumulative impacts that may not be apparent on a project-by-project basis, the ability to enact citywide mitigation measures, and subsequent reduction in paperwork. This Program EIR is consistent with the programmatic level of detail of the proposed project. Accordingly, impacts and mitigation are discussed in this EIR at the level of detail sufficient to allow a reasoned decision about the Project. As a result of the information in this EIR, the City of San Carlos City Council may act to approve or deny the proposed project actions and/or to establish requirements or conditions of approval for future development projects that are considered necessary to mitigate identified project impacts on the environment. Pursuant to CEQA Guidelines Section 15168, later activities within the scope of the Focused GPU will be reviewed in light of this EIR. Pursuant to CEQA Guidelines Section

15168, if needed, later environmental analysis may focus on those site-specific and localized environmental issues that could not be examined in sufficient detail as part of this Program EIR.

### 1.2.1 Organization of the Draft Program EIR

The Draft Program EIR (DEIR or Draft EIR) contains the primary analysis of potential environmental impacts discussed in the following seven sections described below:

Chapter 1.0 Introduction.

Chapter 2.0 Executive Summary: A brief discussion of the project and summary of project impacts, mitigation measures and alternatives.

Chapter 3.0 Project Description: Provides detailed description of the proposed project and the Environmental Setting/Existing Conditions and project objectives.

Chapter 4.0 Environmental Impact Analysis: Evaluates project impacts and identifies mitigation measures designed to reduce significant impacts, where applicable. This Chapter includes 16 sections, each addressing different topical areas (Aesthetics, Air Quality, Biological Resources, Cultural Resources and Tribal Cultural Resources, Energy, Geology and Soils, Greenhouse Gases, Hazards/Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Population and Housing, Public Services and Recreation, Transportation, Utilities, and Wildfire).

Chapter 5.0 Alternatives: Provides an analysis of the different alternatives to the proposed project.

Chapter 6.0 CEQA Conclusions: Provides an analysis of growth-inducing impacts, significant unavoidable environmental impacts, and irreversible environmental change.

Chapter 7.0 Preparers: Provides a list of persons involved in the preparation of the Draft EIR.

The appendices include:

- Appendix A: Notice of Preparation (NOP), including comment letters received and the NOP distribution list
- Appendix B: Housing Element Update and Environmental Safety and Public Services Element Update
- Appendix C: Air Quality, Energy and Greenhouse Gas Analysis Technical Appendices
- Appendix D: Noise Analysis Technical Appendices
- Appendix E: Transportation Impact Analysis

In compliance with Public Resources Code Section 21081.6(a)(1), a mitigation monitoring reporting program (MMRP) will be prepared as a separate document that will be adopted in conjunction with the certification of the Final EIR. The MMRP, responses to public comments on the Draft EIR, and any revisions to the Draft EIR will be included in the Final EIR.

## Approach to EIR Analysis

The City of San Carlos, Community Development Department Planning Division, directed and supervised the preparation of this EIR. The proposed project has the potential to result in one or more significant direct, indirect, and/or cumulative environmental impacts in the environmental issue areas listed below. Therefore, each of these sixteen (16) environmental issue areas have been analyzed in this Draft Program EIR.

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation
- Utilities and Service Systems
- Wildfire

Analyses contained in Chapter 6 states that the project would have no impact on agricultural and forestry resources and mineral resources. Therefore, these issues are not covered in detail in this Draft Program EIR.

The approach to the analysis presented in this EIR is programmatic in nature given the broad scope of the GPU. Each environmental issue is analyzed in a similar manner, starting with a discussion of the existing environmental setting, including physical conditions and pertinent planning and regulatory framework. Thresholds of significance are then defined and are used to measure the proposed project's potential impact to the environment. Thresholds of significance are based on a broad list of questions and impact topics set forth in Appendix G of the State CEQA Guidelines.

The impact analysis provided for each the 16 topical areas examines the broad, long-term environmental effects resulting from implementation of the goals and policies contained in the

housing element update. The assessment of impacts focuses on how the impact in question could occur and whether the goals, policies or some other aspect of the proposed project would reduce or ameliorate such impacts. The presence of sensitive environmental resources, hazards in specific areas, and the broad implications of the Focused General Plan Update throughout the project area are considered in the determination of impact significance. If the analysis indicates that a significant impact could occur, even with the benefits of any proposed goals or policies, mitigation measures are specified.

## 1.3 SCOPING AND PUBLIC REVIEW

Public outreach for the EIR included public noticing, issuance of a Notice of Preparation (NOP) for an Environmental Impact Report, and conducting a public scoping meeting for the EIR, as summarized below. Comments received during the public scoping meeting were taken into consideration during the preparation of this Draft EIR.

### 1.3.1 Notice of Preparation of an EIR

The NOP was prepared and circulated to local, state, and federal agencies and made available to the public on December 17, 2021 (SCH# 2021120442). The NOP contained a summary of the project and resource areas that would be covered in the EIR, and how to submit comments. Circulation of the NOP consisted of its filing with the San Mateo County Clerk's Office and was also published in the Examiner-Inquirer-Bulletin appearing in online and print editions published on December 22, 2021. The NOP was also provided to the Governor's Office of Planning and Research State Clearinghouse for distribution to various State Agencies for review.

Copies of the NOP were made available at the City's Community Development Department and electronically via a web link on the City's website. The City provided for a 45-day public review period that ended on January 31, 2022. Written comments in response to the NOP were received from two agencies / organizations and seven interested individuals. The NOP, summary of comments received at the scoping meeting, and the written comments received on the NOP are included in Appendix A of this document.

### 1.3.2 Public Scoping Meeting

The City held a virtual (online) public scoping meeting on January 12, 2022 before the San Carlos Planning Commission. Oral comments heard at this scoping meeting generally consisted of concerns regarding general topics (the City's General Plan and its elements, specific proposal to be evaluated in the EIR, where housing would be placed within the city, building design standards, housing receiving clearance under this EIR vs. future evaluation under CEQA); cultural resources/tribal cultural resources; land use; hydrology/hazards (sea level rise and rising groundwater levels, transport of hazardous chemicals in groundwater); and transportation/traffic (vehicle miles traveled [VMT], Transportation Demand Management [TDM] Programs, proposed pedestrian, bicycle and transit network improvements, improvements to the State Transportation Network, Caltrain ridership, walkability and bicycle safety in the City).

## 1.4 AREAS OF KNOWN CONTROVERSY

Pursuant to Section 15123(b)(2) of the state CEQA Guidelines, an EIR shall identify areas of controversy known to the lead agency including potential issues raised by agencies and the public. The City has implemented a public outreach program during the development of the housing and safety elements. The outreach program consisted of workshops and virtual meetings and outreach efforts to the business and development community and to the residents of San Carlos. Small group meetings were held with various interest groups within the city and information about the housing and safety elements were posted on the project website. Study sessions open to the public were held with both the Planning Commission and the City Council. Areas of controversy raised during this process included the types of housing planned for in the housing element and where new housing will be proposed within the city, concerns were raised over the City's jobs to housing balance with all the commercial development proposed in the East Side Innovation District area, concerns were raised as to how the city will respond to additional traffic congestion in the downtown area.

The areas of controversy identified during the EIR scoping process are the same as those brought up in the NOP scoping meeting and include land use/housing, hydrology/hazards, and transportation traffic.

## 1.5 CHANGES TO THE PROJECT SINCE DISTRIBUTION OF THE NOP

At the time the NOP was issued and the scoping meeting held, the final draft of the General Plan Housing Element (Housing Element), which is one of the two primary subjects of this EIR, had not been completed. Subsequent to the NOP being issued, the Housing Element which contains candidate sites for the development of new housing construction and/or properties proposed for zoning changes that would allow increased residential densities on such sites have been finalized. Additionally, the Housing Element update requires minor edits to the Circulation and Scenic Highways Element, Environmental Management Element, and Noise Element for consistency.

At the time the NOP was issued and the scoping meeting held, the final draft of the General Plan Environmental Safety and Public Services Element, the second primary subject of this EIR, had not been completed. Subsequent to the NOP being issued, two drafts of the Environmental Safety and Public Services Element were issued on August 30, 2022 and October 11, 2022. Changes in the October 11, 2022 version of the Environmental Safety and Public Services Element were made in response to initial comments from CALFIRE on the wildfire section on the August 30, 2022 version of the element.

All of the comments received during the NOP and scoping process, with the exception of identification of the proposed candidate sites would still be applicable to the project as currently proposed. Minor text changes are also proposed for the Land Use Element, Circulation and Scenic Highway Element, Environmental Management, and Noise Element to maintain consistency throughout the General Plan.

## 1.6 DRAFT EIR PUBLIC REVIEW AND COMMENT PERIOD

Publication of this Draft EIR will mark the beginning of a 45-day public review and comment period. During this period, the Draft EIR will be made available to local, state, and federal agencies, and to interested organizations and individuals for review. Notice of this Draft EIR will be sent directly to every agency, person, and organization that commented on the NOP. Written comments concerning the environmental review contained in this Draft EIR during the 45-day public review period should be sent to:

Lisa Porras, Planning Manager
City of San Carlos
Planning Division
600 Elm Street
San Carlos, CA 94070
lporras@cityofsancarlos.org

### 1.6.1 Availability of EIR Materials

All materials related to the preparation of this Program EIR, including information incorporated by reference, are available for public review. The Notice of Preparation and the Draft Program EIR are posted on the City's website: https://www.sancarlos2040.org/. To request an appointment to review these materials, please contact Lisa Porras (see contact information above).

## 1.7 FINAL EIR/RESPONSES TO COMMENTS

Following the conclusion of the 45-day public review period, the City of San Carlos will prepare a Final EIR in conformance with CEQA Guidelines Section 15132. The Final EIR will consist of:

- Revisions to the Draft EIR (DEIR) text, as necessary resulting from comments received;
- List of individuals and agencies commenting on the DEIR;
- Responses to comments received on the DEIR, in accordance with CEQA Guidelines (Section 15088); and
- Copies of letters received on the DEIR.

Section 15091(a) of the CEQA Guidelines stipulates that no public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings. If the lead agency approves a project despite it resulting in significant adverse environmental impacts that cannot be mitigated to a less than significant level, the agency must state the reasons for its action in writing. This Statement of Overriding Considerations must be included in the record of project approval.

## 1.8 NOTICE OF DETERMINATION

If the project is approved, the City of San Carlos will file a Notice of Determination (NOD), which will be available for public inspection and posted within 24 hours of receipt at the County Clerk's Office for 30 days, as well as the State Clearinghouse. The filing of the NOD starts a 30-day statute of limitations on court challenges to the approval under CEQA (CEQA Guidelines Section 15094(g).

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# CHAPTER 2.0: EXECUTIVE SUMMARY

This chapter provides a summary of the Focused GPU ("project"), a list of associated environmental issues to be evaluated, a summary of significant impacts and mitigation measures associated with the project, and a summary of feasible alternatives to the project, including identification of the environmentally superior alternative.

## 2.1 PROJECT LOCATION

The City of San Carlos is located in the central-east portion of San Mateo County on the San Francisco Peninsula, approximately halfway between San Francisco and San Jose. San Carlos' city limit extends to the City of Belmont to the northwest, the San Francisco Bay to the northeast, the City of Redwood City to the southeast, and unincorporated San Mateo County to the southwest (see Figure 3-1 Regional Location).

The Project area includes lands within the City's corporate limits and lands within the City's sphere of influence (SOI). The term "sphere of influence" applies to the area designated by the San Mateo County Local Agency Formation Commission (also known as LAFCO) as the probable, future physical boundary or service area of the City.

The City of San Carlos encompasses approximately eight square miles, nearly all of which are developed with urban land uses. San Carlos' sphere of influence (Project Area) includes three areas of unincorporated San Mateo County – the Devonshire Area (including two non-adjacent areas: Devonshire Canyon and a nearby 17-acre area adjacent to Club Drive, Cranfield Avenue, and the City of Belmont), Palomar Park, and Pulgas Ridge (formally known as the Hassler Area). The City's Project Area consists of 10,348 parcels encompassing 3,570 gross acres (Figure 3 2 - Project Area).

Freeways and highways offer regional access to San Carlos, including the Bayshore Freeway (US 101) on the east and Junipero Serra Freeway (I 280) to the west. A regional artery, El Camino Real (SR 82) traverses San Carlos in a northwest-southeast direction. A subregional arterial through San Carlos is Alameda de las Pulgas.

## 2.2 PROJECT DESCRIPTION

Every city and county in California is required to have a general plan that functions as a comprehensive, long-range policy document. For cities, the general plan guides the physical development of the incorporated city (e.g., city limit) and any land outside city boundaries (e.g., unincorporated sphere of influence area) that has a relationship to the city's future growth and development. The City of San Carlos' General Plan was last comprehensively updated in 2009 and the City is proposing to amend the six Elements shown below:

- Housing Element

- Environmental Safety and Public Services Element (previously named the Community Safety and Services Element)
- Land Use
- Circulation and Scenic Highway Element
- Environmental Management Element
- Noise Element

The update solely addresses the updated Housing Element, as well as new requirements for the Safety Element. All other changes to the Land Use, Circulation and Scenic Highway, Environmental Management and Noise Elements are minor changes to maintain consistency throughout the General Plan necessitated by the proposed Housing Element and Safety Element updates.

### 2.2.1 Approach to EIR Analysis

Analysis provided in Chapter 6 indicate the project would have no impact in the following environmental issue areas:

- Agricultural and Forestry Resources, and
- Mineral Resources

Therefore, these resources are not covered in detail in this Draft Program EIR.

The following environmental issues are analyzed in greater detail in this Draft Program EIR.

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation
- Utilities and Service Systems
- Wildfire

The approach to the analysis presented in this EIR is programmatic in nature given the broad scope of the housing and safety element updates. Each environmental issue is analyzed in a similar

manner, starting with a discussion of the existing environmental setting, including physical conditions and pertinent planning and regulatory framework. Thresholds of significance are then defined and are used to measure the proposed Project's potential impact to the environment. Thresholds of significance are based on a broad list of questions and impact topics set forth in Appendix G of the State CEQA Guidelines.

The impact analysis provided for each of the environmental issue areas examine the broad, long-term environmental effects resulting from implementation of the goals and policies contained in the Focused GPU. If the analysis indicates that a significant impact could occur, even with the benefits of any proposed goals or policies, mitigation measures are identified and imposed.

### 2.2.2 Summary of Significant Impacts and Mitigation Measures

For each of the environmental topics listed above, any *"significant"* Project or cumulative impact and associated mitigation measure(s) identified in this EIR are summarized in Table 2-1. The summary chart has been organized to correspond with the more detailed impact and mitigation discussions in chapters 4.1 through 4.16 of this Draft EIR. The chart is arranged in four columns: (1) identified impacts, (2) potential significance without mitigation, (3) mitigation measure(s), and (4) the level of impact significance after implementation of the mitigation measure(s). Because the table does not list impacts that are less than significant, and therefore do not require mitigation, the Impact/Mitigation Measure numbering may be out of sequence.

| Table 2-1: Summary of Potentially Significant Impacts and Recommended Mitigation Measures | | | |
|---|---|---|---|
| **Impacts** | **Significance Before Mitigation** | **Mitigation Measures** | **Significance After Mitigation** |
| **Air Quality** | | | |
| **Impact AIR-1:** The project would conflict with or obstruct implementation of the applicable air quality plan. Implementation of Mitigation Measure AIR-2 would reduce construction criteria air pollutant and toxic air contaminant emissions to a level that is below the BAAQMD-recommended threshold of significance. This impact would be considered significant and unavoidable even with the incorporation of feasible mitigation measures. **(Significant and Unavoidable Impact)** | **Potentially Significant** | **AIR-2: Require a Project-level Construction Assessment for New Discretionary Development Projects.** The City shall require applicants to submit a quantitative project-level construction criteria air pollutant and toxic air contaminant emissions analysis for future discretionary development projects that are not exempt under CEQA and do not meet the BAAQMD screening criteria. The estimated construction criteria air pollutant and toxic air contaminant emissions shall be compared against the thresholds of significance maintained by the Bay Area Air Quality Management District (BAAQMD) and, if emissions are shown to be above BAAQMD thresholds, the City shall require the imposition and implementation of mitigation measures to reduce emissions below the thresholds that have been exceeded. Mitigation measures to reduce emissions could include, but are not limited to:<br>• Selection of specific construction equipment (e.g., specialized pieces of equipment with smaller engines or equipment that will be more efficient and reduce engine runtime);<br>• Requiring equipment to use alternative fuel sources (e.g., electric-powered and liquefied or compressed natural gas), meet cleaner emission standards (e.g., U.S. EPA Tier IV Final emissions standards for equipment greater than 50-horsepower), and/or utilizing added exhaust devices (e.g., Level 3 Diesel Particular Filter);<br>• Minimizing the idling time of diesel-powered construction equipment to two minutes; and<br>• Application of Low-VOC paints to interior and/or exterior surfaces (e.g., paints that meet BAAQMD Regulation 8 Rule 3 requirements). | **Significant and Unavoidable Impact** |

| Table 2-1: Summary of Potentially Significant Impacts and Recommended Mitigation Measures | | | |
|---|---|---|---|
| **Impacts** | **Significance Before Mitigation** | **Mitigation Measures** | **Significance After Mitigation** |
| **Impact AIR-2:** The project would result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard. Implementation of Mitigation Measure AIR-2 would reduce construction criteria air pollutant and toxic air contaminant emissions to a level that is below the BAAQMD-recommended threshold of significance. However, it cannot be definitively known or stated at this time that all future development projects occurring under implementation of the proposed project would be able to reduce potential criteria air pollutant emissions to levels that are below BAAQMD thresholds. This impact would be considered significant and unavoidable even with the incorporation of feasible mitigation measures. **(Significant and Unavoidable Impact)** | **Potentially Significant** | **See Mitigation AIR-2, above.** | **Significant and Unavoidable Impact** |
| **Impact AIR-3:** The project could expose sensitive receptors to substantial pollutant concentrations. Implementation of Mitigation Measure AIR-2 would reduce construction criteria air pollutant and toxic air contaminant emissions to a level that is below the BAAQMD-recommended threshold of significance. However, with regard to localized criteria air pollutant and TAC emissions generated during future construction activities it cannot be definitively known or stated at this time that all future development projects occurring under implementation of the proposed project would be able to reduce potential criteria air pollutant and TAC emissions to levels that are below BAAQMD thresholds. This impact would be considered | **Potentially Significant** | **See Mitigation Measure AIR-2, above.** | **Significant and Unavoidable Impact** |

| Table 2-1: Summary of Potentially Significant Impacts and Recommended Mitigation Measures | | | |
|---|---|---|---|
| **Impacts** | **Significance Before Mitigation** | **Mitigation Measures** | **Significance After Mitigation** |
| significant and unavoidable even with the incorporation of feasible mitigation measures. **(Significant and Unavoidable Impact)** | | | |
| **Impact AIR-5:** The project could cause substantial adverse cumulative impacts with respect to Air Quality. Because future construction activities could result in ozone precursor and PM emissions that exceed BAAQMD thresholds, the project could increase the frequency and/or severity of air quality violations in the Bay Area Basin or otherwise impede attainment of air quality standards. **(Significant and Unavoidable Impact)** | **Potentially Significant** | **See Mitigation Measure AIR-2, above.** | **Significant and Unavoidable Impact** |
| **Biological Resources** | | | |
| **Impact BIO-1:** The project could have a significant adverse effect, either directly or through habitat modifications, on any species listed as candidate, sensitive or special status species in local or regional plans, policies, or regulations by the California Department of Fish and Game or U. S. Fish and Wildlife. Implementation of Mitigation Measures BIO-1 through BIO-3 would reduce potential impacts to a less than significant level **(Less Than Significant with Mitigation Incorporated)** | **Potentially Significant Impact** | **Mitigation Measure BIO-1**: **Project-Specific Biological Resources Evaluation.** Prior to construction of new housing on sites that are on or adjacent to natural vegetation or aquatic habitat, and/or vegetation thinning or creation of fuel breaks, a project-specific biological resources evaluation shall be conducted by a qualified biologist. The biologist shall utilize relevant resources such as the California Natural Diversity Database (CNDDB) and the National Wetlands Inventory (NWI) as well as a field survey covering the project site and adjacent areas. A biological resources report or memo shall be prepared documenting the results of the evaluation, to a level of detail appropriate for the project. At a minimum, the report or memo shall include a description of existing vegetation, habitats, and aquatic features on the project site; an evaluation of special-status species and sensitive habitats that could occur on the site; and suitable mitigation measures as needed to avoid project-related impacts to biological resources. Mitigation measures from the biological resources evaluation | **Less than Significant Impact** |

| Table 2-1: Summary of Potentially Significant Impacts and Recommended Mitigation Measures | | | |
|---|---|---|---|
| **Impacts** | **Significance Before Mitigation** | **Mitigation Measures** | **Significance After Mitigation** |
| | | shall be incorporated into the CEQA document for the project and/or adopted as project conditions of approval.<br>Applies To: New housing development on sites that are on or adjacent to natural vegetation or aquatic habitat, vegetation thinning and creation of fuel breaks. | |
| **Impact BIO-2:** The project could have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. Implementation of Mitigation Measure BIO-1 would reduce potential impacts to a less than significant level. **(Less Than Significant with Mitigation Incorporated)** | **Potentially Significant Impact** | **Mitigation Measure BIO-2: Nesting Birds.** To avoid impacts to nesting birds and avoid potential violation of state and federal laws pertaining to birds, all construction of new housing (including but not limited to mobilization and staging, clearing, grubbing, tree removal, fence installation, demolition, and grading) and/or vegetation thinning and creation of fuel breaks should occur outside the avian nesting season (that is, prior to February 1 or after September 15) if possible. If construction and/or vegetation thinning or creation of fuel breaks occurs within the avian nesting season (from February 1 to September 15), all suitable habitats located within the project's area of disturbance including staging and storage areas plus a 250-foot (passerines) and 1,000-foot (raptor nests) buffer around these areas shall be thoroughly surveyed, as feasible, for the presence of active nests by a qualified biologist no more than five days before commencement of any site disturbance activities and equipment mobilization. If project activities are delayed by more than five days, an additional nesting bird survey shall be performed. Active nesting is present if a bird is building a nest, sitting in a nest, a nest has eggs or chicks in it, or adults are observed carrying food to the nest. The results of the surveys shall be documented.<br><br>If pre-construction nesting bird surveys result in the location of active nests, no site disturbance and mobilization of heavy equipment (including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, fence installation, demolition, and grading), shall take place | **Less than Significant Impact** |

| Table 2-1: Summary of Potentially Significant Impacts and Recommended Mitigation Measures | | | |
|---|---|---|---|
| **Impacts** | **Significance Before Mitigation** | **Mitigation Measures** | **Significance After Mitigation** |
| | | within 250 feet of non-raptor nests and 1,000 feet of raptor nests, or as determined by a qualified biologist, until the chicks have fledged. Monitoring shall be required to ensure compliance with Migratory Bird Treaty Act (MBTA) and relevant California Fish and Game Code requirements. Monitoring dates and findings shall be documented.<br><br>Applies To: All housing construction and/or vegetation thinning and creation of fuel breaks during the nesting bird season (February 1 through September 15). | |
| **Impact BIO-3:** The project could have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. Implementation of Mitigation Measure BIO-1 would reduce potential impacts to a less than significant level. **(Less Than Significant with Mitigation Incorporated)** | **Potentially Significant Impact** | **Mitigation Measure BIO-3a: Bat Habitat Assessment.** Prior to removal of trees or structures for housing development or fire hazard reduction, a qualified biologist shall conduct a bat habitat assessment of trees and structures to be removed, as well as surrounding trees and structures. The biologist shall search for large cavities and crevices in trees and structures that could support maternity roosts as well as habitat for special-status bat species. Signs of bats such as guano or the smell of bats shall also be noted. Results of the bat habitat assessment shall be documented.<br>If no suitable roosting habitat or signs of bats are found, then no further action is required, and the project may proceed as planned. If suitable roosting habitat or signs of bats are found, then Mitigation Measure 3b shall be implemented.<br>Mitigation Measure BIO-3b. Dusk Emergence Bat Survey: If suitable roosting habitat or signs of bats are found in trees or structures to be removed on a new housing site or fire fuel reduction area, a qualified biologist shall conduct a dusk emergence survey for roosting bats within 14 days prior to the removal of the tree(s) or structure(s). The biologist shall monitor all suitable roosting trees and structures at dusk for emerging bats, using acoustic equipment to identify the species. Results of the survey shall be documented. | **Less than Significant Impact** |

| Table 2-1: Summary of Potentially Significant Impacts and Recommended Mitigation Measures | | | |
|---|---|---|---|
| **Impacts** | **Significance Before Mitigation** | **Mitigation Measures** | **Significance After Mitigation** |
| | | If no roosting bats are found during the survey, then no further action is required, and the project may proceed as planned. If roosting bats are found during the survey, a disturbance-free buffer zone shall be established around the roost site during the maternity season (April 15-September 15), as determined by a qualified biologist until the maternity season is over. Outside the maternity season, roosting bats may be excluded from the tree(s) or structure(s) prior to tree removal as directed by a qualified biologist. If a special-status bat is found, the roosting site shall be preserved if feasible and CDFW shall be consulted prior to exclusion.<br><br>Applies To: Any housing project or fuel reduction project that requires removal of trees or structures. | |
| **Impact BIO-4:** The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Implementation of Mitigation Measure BIO-1 would reduce potential impacts to a less than significant level. **(Less Than Significant with Mitigation Incorporated)** | **Potentially Significant Impact** | **See Mitigation Measure BIO-1, above.** | **Less than Significant Impact** |
| **Impact BIO-5:** The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Implementation of Mitigation Measures BIO-1 through BIO-3 would reduce potential impacts to a less than significant level. **(Less Than Significant with Mitigation Incorporated)** | **Potentially Significant Impact** | **See Mitigation Measures BIO-1, BIO-2, and BIO-3, above.** | **Less than Significant Impact** |

| Table 2-1: Summary of Potentially Significant Impacts and Recommended Mitigation Measures | | | |
|---|---|---|---|
| **Impacts** | **Significance Before Mitigation** | **Mitigation Measures** | **Significance After Mitigation** |
| **Impact TRIB-1:** The project could cause a substantial adverse change in the significance of a Tribal Cultural Resource. **(Less Than Significant with Mitigation Incorporated)** | **Potentially Significant Impact** | **Mitigation Measure TRIB-1: Consider all Native American Archaeological Discoveries to be Significant Resources.** All Native American artifacts (tribal finds) shall be considered as a significant Tribal Cultural Resource, pursuant to PRC 21074 until the lead agency has enough evidence to make a determination of significance. The City shall coordinate with an archaeologist who meets the U.S. Secretary of the Interior's Professional Qualifications, as well as an appropriate tribe or tribes, as determined by the NAHC, to develop an appropriate treatment plan for the resources. The plan may include implementation of archaeological data recovery excavations to address treatment of the resource along with subsequent laboratory processing and analysis. An archaeological report shall be written detailing all archaeological finds and submitted to the City and the Northwest Information Center. | **Less than Significant Impact** |

NOTES:
S = Significant Impact
LTS = Less than Significant Impact
SU = Significant Unavoidable Impact

## Alternatives to the Proposed Project

To provide a basis for further understanding of the environmental effects of a proposed project and possible approaches to reducing its identified significant impacts, the CEQA Guidelines require an EIR to also "describe a range of reasonable alternatives to the project, or to 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."

Project Objectives

The Focused GPU and Zoning Amendments include the following objectives for the long-term growth and enhancement of the community:

1. Promote the preservation and improvement of the quality of existing housing and neighborhoods.
2. Encourage housing development located close to transit, Downtown, and along El Camino Real and San Carlos Avenue with high quality, higher density, multi-family housing.
3. Assist in the development of new housing that is affordable at all income levels.
4. Remove and/or mitigate potential governmental constraints to the provision of adequate, affordable housing.
5. Provide adequate housing for special needs populations.
6. Eliminate discrimination in the provision of housing.
7. Reduce the potential loss of life, injury, and property damage due to seismic and geologic hazards.
8. Reduce hazards associated with flooding or inundation from inland flooding and Sea Level Rise.
9. Protect lives and property from risks associated with wildfire-related emergencies.
10. Protect the community from the harmful effects of hazardous materials.
11. Combat housing discrimination, lessen racial bias, lessen historic patterns of segregation, and lift barriers that restrict access in order to foster inclusive communities and achieve racial equity.
12. Continue effective emergency response procedures to ensure public safety in the event of natural or man-made disasters.
13. Identify communities most vulnerable to climate change impacts and establish new goals, policies, and programs for equitable public safety, emergency preparedness, response and recovery.

## Identified Alternatives

The EIR is required to describe a range of reasonable alternatives to 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. The alternatives identified in an EIR are based on the potentially significant impacts of the proposed project. This EIR identified impacts to air quality,

biological resources, and cultural and tribal cultural resources, primarily related to housing construction activities. Therefore, the EIR identified the No Project Alternatives as required by CEQA and a second alternative, the RHNA Only Alternative, to reduce the number of potential housing units constructed and thereby addressing the impacts identified in the EIR for the proposed project.

Alternative 1: No Project/Existing Housing Element/2009 General Plan

The No Project/Existing Housing Element/2009 General Plan (No Project Alternative) assumes that housing development would occur within the City as directed by the currently adopted 2015-2023 Housing Element and the 2009 General Plan. The No Project Alternative would generate less housing development within the City because none of the General Plan land use designation or Zoning Code amendments that facilitate greater housing development within the City would occur as under the proposed project.

The proposed project includes the Environmental Safety and Public Services Update and would help the City prepare for the adverse effects of climate change. The No Project Alternative would not have the beneficial effect of creating new planning policy for climate change and resiliency planning, including wildfire hazard and sea level rise.

The No Project Alternative would not allow the City to meet its RHNA requirements, or allow the City to comply with state housing laws or SB 379 requiring the inclusion on climate change resilience planning in Safety Elements. The City would face significant, adverse repercussions for not adopting a new Housing Element reflecting the 6$^{th}$ cycle RHNA assignment. State housing law identifies penalties that can be levied against jurisdictions that do not adopt new housing elements (see Chapter 5, Alternatives for a detailed discussion). The No Project Alternative would not meet any of the project objectives.

Alternative 2: RHNA Only Alternative

The RHNA Only Alternative reflects a reduced number of residential units from 3,576 units included in the proposed project to the RHNA of 2,735 (reduction of 841 units), and the same amount of non-residential development included in the project. Since the significant impacts of the project (air quality) are largely due to the substantial number of new residential units proposed, this alternative reduces the potential number of future dwelling units, therefore reducing the amount of air emissions and short-term construction noise that would be generated from housing construction. The RHNA Only Alternative would allow the City to meet its RHNA requirements. The RHNA Only Alternative is marginally superior to the proposed project because it would not substantially reduce the environmental impacts associated with the proposed project due to fewer housing units being constructed. It would meet most of the project objectives except HCD's requirement to include buffer sites in a housing element to allow for flexibility in planning. Not including buffer units in the Housing Element could jeopardize the ability of the City to obtain HCD approval of the Housing Element Update.

## Environmentally Superior Alternative

The RHNA Only Alternative is only marginally superior to the proposed project because it would not substantially reduce the environmental impacts associated with the proposed project. The RHNA Only Alternative would eliminate 841 units from the proposed project. Any reduction in impacts would not be significant because the number of housing units in the proposed project is not that much greater than the RHNA Only Alternative.

The RHNA Only Alternative would comply with State law, and it would satisfy most of the City's objectives. The RHNA Only Alternative would also provide the benefit of updating the Environmental Safety and Public Services Element with the new wildfire, sea level rise, and climate change resiliency policies and actions included in the proposed Safety Element update. Therefore, the RHNA Only Alternative is considered the environmentally preferrable alternative. A comparison of impacts between the project and alternatives is provided below in Table 2-2.

**Table 2-2: Alternatives Impacts Compared to Project Impacts**

| *Impact/Resource* | *Proposed Project* | *Alternative 1: No Project* | *Alternative 2: RHNA Only Alternative* |
|---|---|---|---|
| **Aesthetics** | LTS | Reduced LTS | Similar LTS |
| **Air Quality** | SU | Reduced SU | Similar SU |
| **Biological Resources** | LTS with Mitigation | Reduced LTS | Similar LTS with Mitigation |
| **Cultural Resources and Tribal Cultural Resources** | LTS with Mitigation | Reduced LTS | Similar LTS with Mitigation |
| **Energy** | LTS | Reduced LTS | Reduced LTS |
| **Geology and Soils** | LTS | Similar LTS | Similar LTS |
| **Greenhouse Gas Emissions** | LTS | Reduced LTS | Reduced LTS |
| **Hazards and Hazardous Materials** | LTS | Similar LTS | Reduced LTS |
| **Hydrology and Water Quality** | LTS | Similar LTS | Similar LTS |
| **Land Use** | LTS | Reduced LTS | Similar LTS |
| **Noise** | LTS | Reduced LTS | Reduced LTS with Mitigation |
| **Population and Housing** | LTS | Reduced LTS | Reduced LTS |
| **Public Services and Recreation** | LTS | Reduced LTS | Reduced LTS |
| **Transportation** | LTS | Reduced LTS | Reduced LTS |
| **Utilities and Service Systems** | LTS | Reduced LTS | Reduced LTS |
| **Wildfire** | LTS | Greater LTS | Similar LTS |

Source: MIG, 2021
LTS= Less than Significant Impacts
SU= Significant and Unavoidable Impacts

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# CHAPTER 3.0: PROJECT DESCRIPTION

Every California city and county is required to have a "General Plan" that functions as a comprehensive, long-range policy document.[1] For cities, the General Plan guides the physical development of the incorporated city (i.e., city limits) and any land outside city boundaries (i.e., unincorporated sphere of influence area - SOI) that has a relationship to the city's future growth and development. Together, the incorporated city plus the SOI are called the Project Area. The City of San Carlos' General Plan (Envision 2030) was last updated in 2009 and includes the Housing Element (last updated and adopted in 2015), Community Safety and Services Element, Land Use Element, Circulation and Scenic Highways Element, Environmental Management Element, Parks and Recreation Element, and Noise Element, all of which were adopted in 2009.

The City proposes to make a comprehensive amendment to the Housing Element, a focused amendment to the Community Safety and Services Element to address climate change resiliency planning as required by SB 379 and CGC section 65302(g), and minor amendments to the Land Use Element, Circulation and Scenic Highways Element, Environmental Management Element, and Noise Element. As the City is revising six General Plan elements (not all seven elements), these amendments are referred to as a Focused General Plan Update (Focused GPU). In addition to the Focused GPU, the City is proposing specific amendments to Title 18 (Zoning) of the San Carlos Municipal Code, and amendments to San Carlos' Land Use Map and Zoning Map. Amendments to Title 18 and the Zoning Map are made to comply with California Government Code (CGC) Section 65300 et seq. that require zoning to be consistent with the Focused GPU. Therefore, the proposed "project" that will be evaluated in this EIR is adoption of both the Focused GPU and amendments to Title 18 of the San Carlos Municipal Code and Zoning Map (collectively, Focused GPU, or the project). It is important to note that the Land Use, Circulation and Scenic Highways, Environmental Management, and Noise elements and Title 18 Municipal Code and Zoning Map are updated only to reflect and support the updated Housing Element and Community Safety and Services Element (see Sections 3.3.3 through 3.3.8).

The intent of updating the Housing and Community Safety and Service Elements is to create a policy framework that will:

- Facilitate new housing growth within San Carlos in response to the Bay Area region's need for more affordable and market rate housing, as well as identify and develop housing strategies to meet San Carlos' 2023-2031 housing unit Regional Housing Needs Allocation (i.e., 2,735 new homes); and

[1] Each planning agency shall prepare and the legislative body of each county and city shall adopt a comprehensive, long-term general plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency's judgment bears relation to its planning. Chartered cities shall adopt general plans which contain the mandatory elements specified in Section 65302. CA Govt Code § 65300 (2021).

- Provide updated information about natural and man-made hazard risks to the community, provide new information related to wildfire hazard, add sea level rise and resiliency planning strategies, and present policies designed to protect life and property from these hazards.

The project will ensure that the General Plan meets the requirements of the California Government Code (CGC), Article 5 (Authority for and Scope of General Plans); addresses changes to the demographic, economic, and environmental conditions in San Carlos that are anticipated to occur through the year 2031; and that Title 18, Zoning is consistent with General Plan. The project includes goals, policies, and actions and amendments to the Title 18 of the Municipal Code to be enacted after adoption of the Focused General Plan Update project; however, this EIR contemplates these actions as implementing actions and activities of the project. The purpose of the amendments is to make Title 18 consistent with the goals, policies, and actions of the project. Amendments to Title 18 necessary to implement these actions will be adopted for the "opportunity sites" to implement the Housing Element, and as necessary to meet RHNA, as well as to implement Safety Element policy and actions.

## 3.1 BACKGROUND

### 3.1.1 State Regional Housing Needs Allocation

California Government Code Section 65584 recognizes local governments play a vital role in developing housing affordable to all income levels. In 1969, the State mandated all California cities, towns, and counties must plan for the housing needs of residents, regardless of income. This mandate is called the Housing Element and Regional Housing Needs Allocation, or RHNA. As part of RHNA, the California Department of Housing and Community Development ("HCD") determines the total number of new homes California needs to plan for, and their affordability levels in order to meet the housing needs of people at all income levels. The state-wide RHNA is then broken down to regional allocations, which are then broken down to the local jurisdictions.

The Association of Bay Area Governments (ABAG)[2] representing nine counties and 101 cities and towns in the San Francisco Bay area region, working with a designated Housing Methodology Committee (HMC), distributes a share of the region's housing need to each city, town, and county in the region. Each local government must then update its Housing Element to show the locations where housing can be built to accommodate the RHNA and the policies and strategies necessary to meet the community's housing needs.

For the ABAG region, the RHNA covers an 8.5-year projection period (June 30, 2022 – December 15, 2030, also known as the Sixth Cycle) and is divided into four income categories: very low, low, moderate, and above moderate (within the very low-income category is the "extremely low-

[2] The Association of Bay Area Governments (ABAG) is the comprehensive regional planning agency and council of governments for the nine counties and 101 cities and towns of the San Francisco Bay region.

income category). The ABAG region's projected housing need is 441,176 new housing units for the Sixth Cycle. San Carlos' Sixth Cycle RHNA is 2,735 housing units, with the units distributed among the four income categories as shown in Table 3-1. The updated Housing Element for this planning period demonstrates that San Carlos has sufficient capacity to meet its 2023-2031 RHNA obligations with projects in the pipeline, anticipated accessory dwelling unit and SB9 unit construction, and identified housing opportunity sites.

**Table 3-1: San Carlos RHNA**

| Income Group | % of County Median Family Income | RHNA (Housing Units) | Percentage of Units |
|---|---|---|---|
| Very Low | 0 -50% | 739 | 27.0% |
| Low | 51 – 80% | 425 | 15.5% |
| Moderate | 81 – 120% | 438 | 16.0% |
| Above Moderate | 120% + | 1,133 | 41.4% |
| **Total** | | **2,735** | **100%** |

In developing a methodology to assign the RHNA, ABAG has to meet five statutory objectives, as summarized below:

1. Increase housing supply and mix of housing types, with the goal of improving housing affordability and equity in all cities and counties within the region.
2. Promote infill development and socioeconomic equity; protect environmental and agricultural resources; encourage efficient development patterns; and achieve greenhouse gas reduction targets.
3. Improve intra-regional jobs-to-housing relationship, including the balance between low-wage jobs and affordable housing units for low-wage workers in each jurisdiction.
4. Balance disproportionate household income distributions (more high-income allocation to lower-income areas, and vice-versa)
5. Affirmatively further fair housing.

The RHNA must also be consistent with the growth pattern identified in Plan Bay Area 2050, which is the Bay Area region's long-range plan for transportation, housing, the economy, and the environment.

### 3.1.2 Housing Element Update

All California cities and counties are required to plan for their fair share of the State's housing needs. The planning process to accomplish this is the Housing Element update, which now has an eight-year period. Housing Elements, long-range policy documents, are required to be reviewed and certified by the State of California's Housing and Community Development Department (HCD). The City of San Carlos' existing Housing Element Update covers the period of 2015-2023 (Fifth Cycle) and includes a RHNA allocation of 596 new housing to be planned for during the 2015 through 2023 planning period. Between 2015 and 2021, 622 units of the current 596-unit RHNA assignment were constructed. Although total construction exceeded the full RHNA

allocation, this was largely due to the development of above-moderate income units. Only 11 percent of very low-income units, 13 percent of low-income units, and 13 percent of moderate-income units were built during this period.

All ABAG jurisdictions are currently planning for the Sixth Cycle and their respective allocated RHNA. The ABAG jurisdictions' housing element update statutory deadline for adoption is January 31, 2023. Government Code requirements state that jurisdictions must adopt housing element updates within 120 calendar days from the statutory deadline.

A housing element's components, as required by Government Code Section 65583, include a:

- Detailed analysis of the jurisdiction's demographic, economic, and housing characteristics;
- Comprehensive analysis of the barriers to producing and preserving housing;
- Review of the jurisdiction's progress in implementing its adopted housing policies and programs;
- Identification of policies and actions, and a full list of programs that will help the jurisdiction carry out the policies; and
- List of Opportunity Sites (i.e., sites for housing) that can accommodate new housing, demonstrating the jurisdiction's ability to meet its RHNA target allocation.

To meet its RHNA target, San Carlos is permitted to count anticipated units associated with the following scenarios:

- Development projects approved by the City but not yet constructed,
- Proposed residential and/or mixed-use projects,
- Sites of a sufficient size and having other characteristics to be identified as "opportunity sites"; and
- A projection of anticipated construction associated with accessory dwelling units and/or duplexes in low-density residential zones associated with the new State law, Senate Bill 9 (SB 9).

The composition of potential housing types to meet San Carlos' RHNA requirements include:

- Single-Unit
- Multi-Unit
- Mixed-Use (i.e., multi-family units built alongside commercial or office uses in a vertical or horizontal layout, either in the same building or as separate buildings)
- Accessory Dwelling Units (ADUs)
- SB9 units?

The Housing Element maps are updated to show where future housing is anticipated to be built to meet the RHNA (Opportunity Sites) and identifies the potential number of residential units that may be built at the locations, consistent with State law.

The Housing Element is integral to other General Plan Elements and is consistent with the goals and policies set forth by the General Plan. The Land Use Element will be updated to reflect land use and density changes and other policies to be consistent with the Housing Element. Likewise, Title 18, Zoning, of the Municipal Code will be amended for consistency with the General Plan in accordance with State law.

### 3.1.3 Community Safety and Services Element (Being Renamed as the Environmental Safety and Public Services Element) Update

The contents of a Safety Element are specified in Government Code §65304(g) and recent State legislation is in effect since the City's Community Safety and Services Element was last updated and adopted in 2009. Specifically, California Senate Bill 379 ("SB 379"), California Senate Bill 1035 ("SB 1035), and California Senate Bill 1241 ("SB 1241") placed new requirements on how and when cities need to update the Safety Element. A Safety Element contain goals, policies and implementation plans to prepare for and protect the public from the harmful impacts of environmental hazards. The Safety Element for San Carlos is contained in the Community Safety and Services Element. Currently, the Safety Element addresses geologic, flooding, and wildfire hazards. It is being updated to comply with new state requirements to address climate change and resiliency planning, as well as new requirements to address sea level rise, flooding, and a more robust planning effort to address wildfire hazards.

Efforts to streamline state and local planning include allowing a jurisdiction to incorporate local hazard mitigation plans and other climate adaptation and resilience planning documents by reference in the General Plan. The San Carlos Community Safety and Services Element, now being renamed the Environmental Safety and Public Services Element under this project, is being updated as necessary as part of the project to address climate adaptation and resiliency strategies and ensure consistency with the San Mateo County 2021 Multi-Jurisdictional Local Hazard Mitigation Plan, the San Carlos Climate Mitigation and Adaptation Plan, and other regional resiliency planning documents. The wildfire policies will be reviewed and approved by the California Department of Forestry and Fire Protection (CALFIRE).

The proposed Environmental Safety and Public Services Element contains goals, policies, and actions to reduce the risks associated with environmental hazards. The proposed goals, policies, and actions focus on building the resilience of the community and the built environment against hazards, including geologic and seismic hazards, flooding, wildfire, poor air quality, and climate change effects, hazardous materials, and aviation hazards from the San Carlos Airport. The proposed Environmental Safety and Public Services Element also address crime prevention and police services, fire prevention and suppression services, and disaster preparedness and evacuation. It also includes proposed implementation programs consist of procedures, permits, agreements, and ordinances; special projects; outreach and education programs; and interagency and other organizations consultation. A summary of the new goals (with related policies and actions) is contained in section 3.3.3, below. Appendix B presents the Draft Environmental Safety and Public Services Element.

### 3.1.4 Other Updates for Consistency

The proposed updated Housing Element and Environmental Safety and Public Services Element Updates require updates to other General Plan elements and Title 18, Zoning of the Municipal Code. The following items require minor edits to maintain consistency with the proposed Housing and Environmental Safety and Public Services Element Updates:

- Land Use Element, including General Plan land use designations map and land use designations;
- Circulation and Scenic Highway Element;
- Environmental Management Element;
- Noise Element; and
- Title 18, Zoning and Zoning Map.

## 3.2 PROJECT LOCATION

The City of San Carlos is located in the central-east portion of San Mateo County on the San Francisco Peninsula, approximately halfway between San Francisco and San Jose. San Carlos' city limit extends to the City of Belmont to the northwest, the San Francisco Bay to the northeast, the City of Redwood City to the southeast, and unincorporated San Mateo County to the southwest (see Figure 3-1 Regional Location).

The project area includes lands within the City's corporate limits and lands within the City's sphere of influence (SOI). The term "sphere of influence" applies to the area designated by the San Mateo County Local Agency Formation Commission (also known as LAFCO) as the probable, future physical boundary or service area of the City.

The City of San Carlos encompasses approximately eight square miles, nearly all of which are developed with urban land uses. San Carlos' sphere of influence (project area) includes three areas of unincorporated San Mateo County – the Devonshire Area (including two non-adjacent areas: Devonshire Canyon and a nearby 17-acre area adjacent to Club Drive, Cranfield Avenue, and the City of Belmont), Palomar Park, and Pulgas Ridge (formally known as the Hassler Area). The City's project area consists of 10,348 parcels encompassing 3,570 gross acres (Figure 3-2 Project Area).

Freeways and highways offer regional access to San Carlos, including the Bayshore Freeway (US 101) on the east and Junipero Serra Freeway (I 280) to the west. A regional artery, El Camino Real (SR 82) traverses San Carlos in a northwest-southeast direction. A subregional arterial through San Carlos is Alameda de las Pulgas.

### 3.2.1 Land Use

Residential land uses represent the predominant existing land use type in San Carlos (1,970 gross acres), which account for more than half (55 percent) of the total land area. Single-unit residential uses—generally consisting of one house per lot—make up over 50 percent of the residential

category. Multi-unit residential uses make up less than five percent of residential uses. Mixed – Use land uses total eight acres (less than one percent).

Commercial and light industrial land uses total 488 acres (14 percent). Public Facilities and Institutions makes up 311 gross acres (nine percent). Park and open space uses encompass 668 gross acres (19 percent). Parking uses total 20 acres or less than one percent, while vacant land makes up 106 acres and three percent of the Planning Area. Figure 3-3 shows the existing land uses within the City and Figure 3-4 presents the existing General Plan Land Use Map. Figure 3-5 presents the City's existing Zoning Map

## 3.3 PROPOSED PROJECT

### 3.3.1 Purpose and Objectives

The project establishes the objectives listed below for the long-term growth and enhancement of the community.

1. Promote the preservation and improvement of the quality of existing housing and neighborhoods.
2. Encourage housing development located close to transit, Downtown, and along El Camino Real and San Carlos Avenue with high quality, higher density, multi-family housing.
3. Assist in the development of new housing that is affordable at all income levels.
4. Remove and/or mitigate potential governmental constraints to the provision of adequate, affordable housing.
5. Provide adequate housing for special needs populations.
6. Eliminate discrimination in the provision of housing.
7. Reduce the potential loss of life, injury, and property damage due to seismic and geologic hazards.
8. Reduce hazards associated with flooding or inundation from inland flooding and Sea Level Rise. Protect lives and property from risks associated with wildfire-related emergencies.
9. Protect the community from the harmful effects of hazardous materials.
10. Combat housing discrimination, lessen racial bias, lessen historic patterns of segregation, and lift barriers that restrict access to foster inclusive communities and achieve racial equity.
11. Continue effective emergency response procedures to ensure public safety in the event of natural or man-made disasters.
12. Identify communities most vulnerable to climate change impacts and establish new goals, policies, and programs for equitable public safety, emergency preparedness, response, and recovery.

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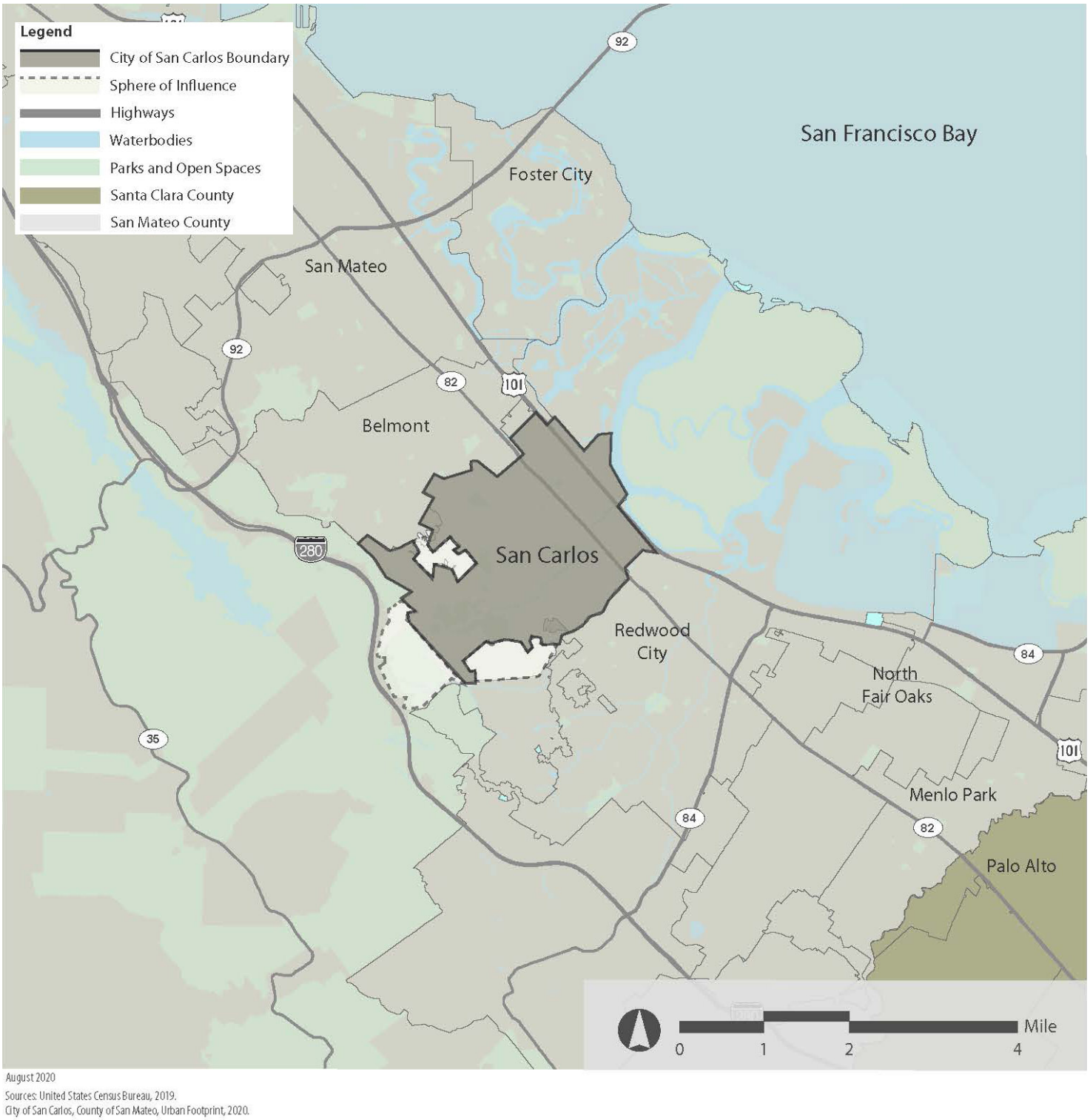
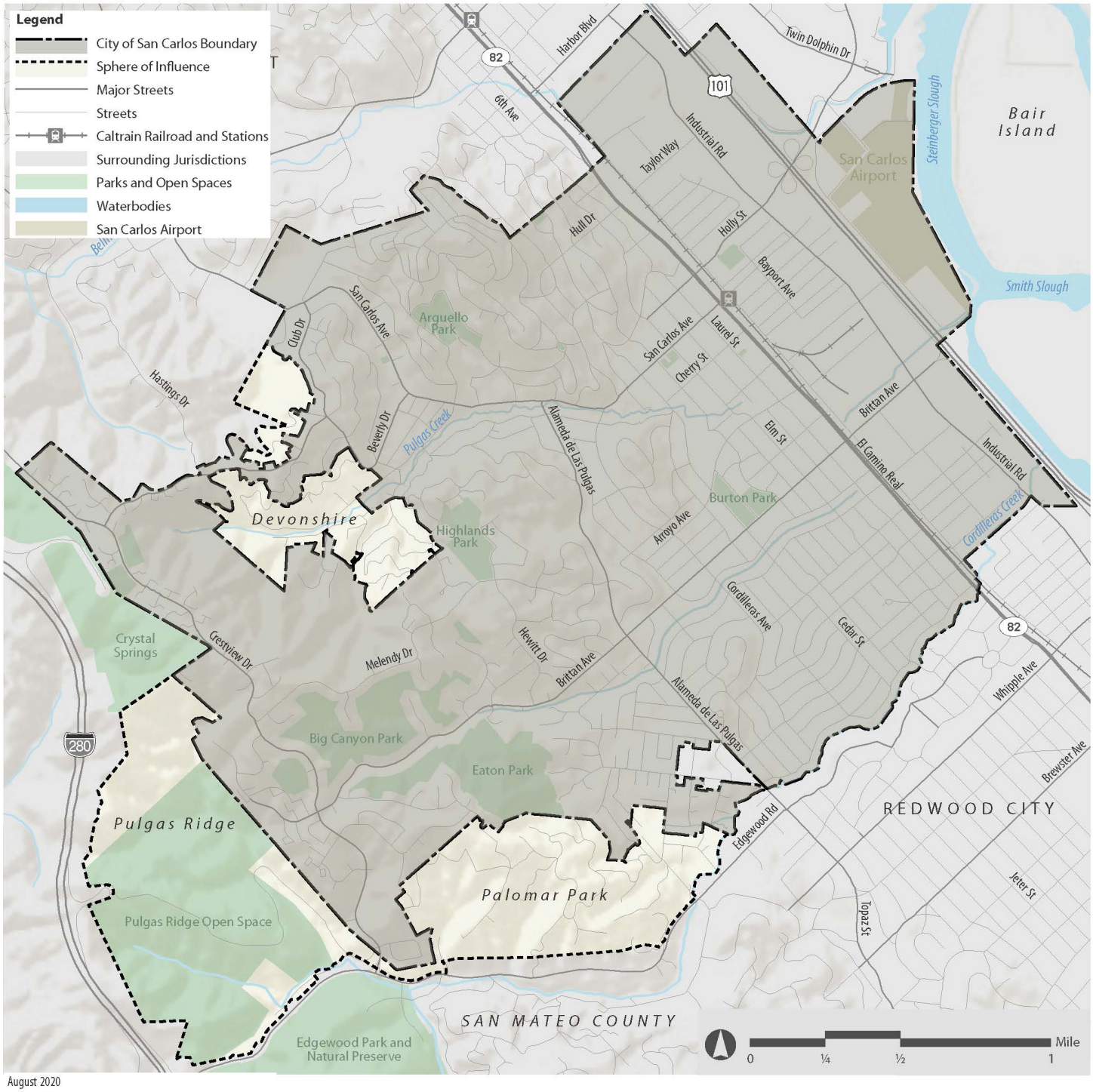



*Source: San Carlos General Plan 2020; MIG 2022*

**Figure 3-1** Regional Location

*Focused General Plan Update*




August 2020

Sources: United States Census Bureau, 2019.
City of San Carlos, County of San Mateo, Urban Footprint, 2020.

*Source: San Carlos General Plan 2020; MIG 2022*

**Figure 3-2** Project Area

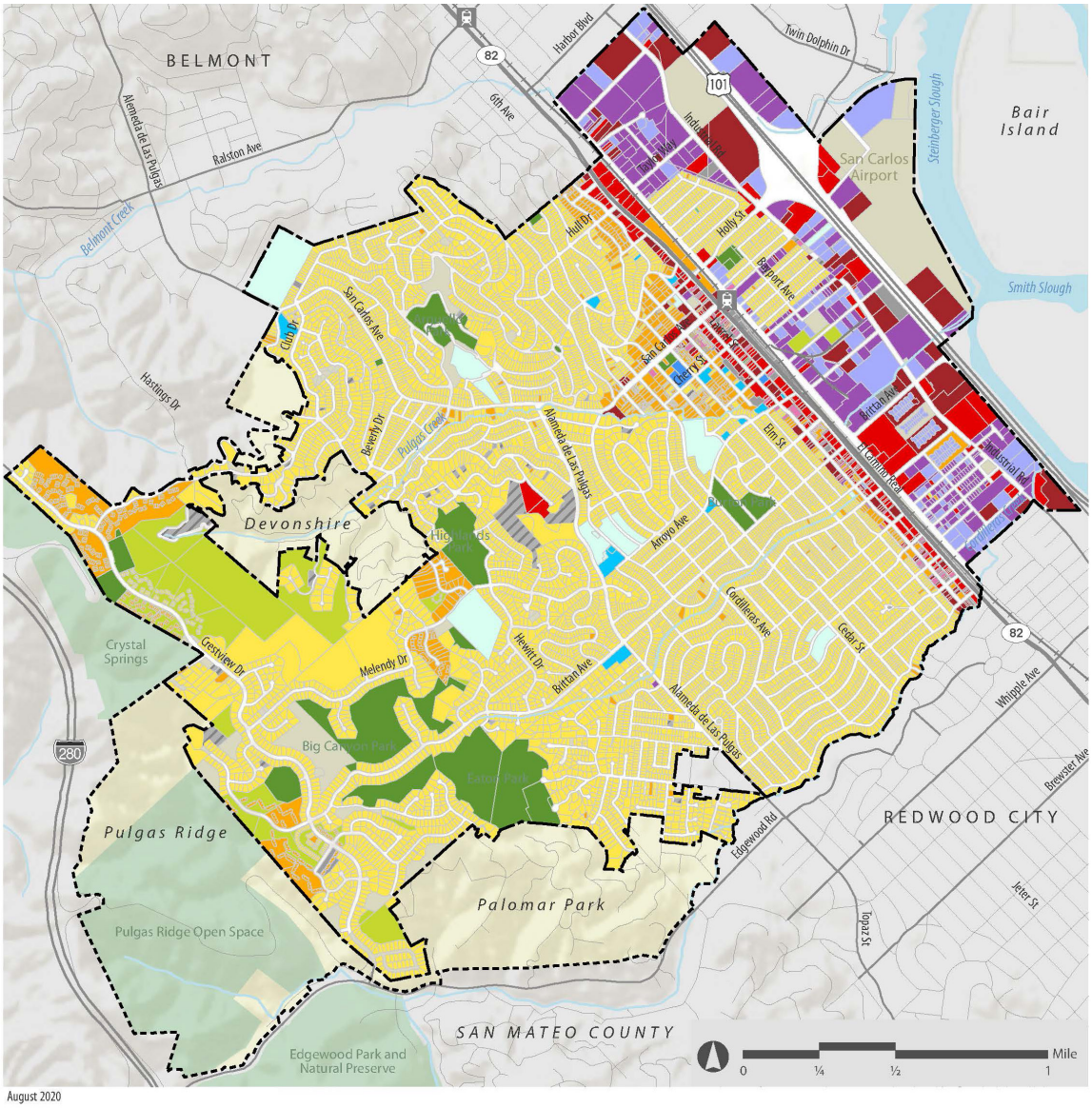
*Focused General Plan Update*

**Existing Land Uses**

- Single-Family Residential
- Multi-Family Residential
- Mixed-Use
- Retail
- Office/Commercial
- Industrial
- Warehousing
- Civic
- Institutional
- Schools/Education Facilities
- Parks/Recreation
- Open Space/Natural Resources
- Agriculture
- Transportation/Utilities
- Parking
- Vacant

**Base Map Features**

- City of San Carlos Boundary
- Sphere of Influence
- Major Streets
- Streets
- Caltrain Railroad and Stations
- Surrounding Jurisdictions
- Parks and Open Space
- Waterbodies




August 2020

Sources: United States Census Bureau, 2019. City of San Carlos, County of San Mateo, Urban Footprint, 2020.

*Source: San Carlos General Plan 2020; MIG 2022*

**Figure 3-3** Existing Land Uses

*Focused General Plan Update*

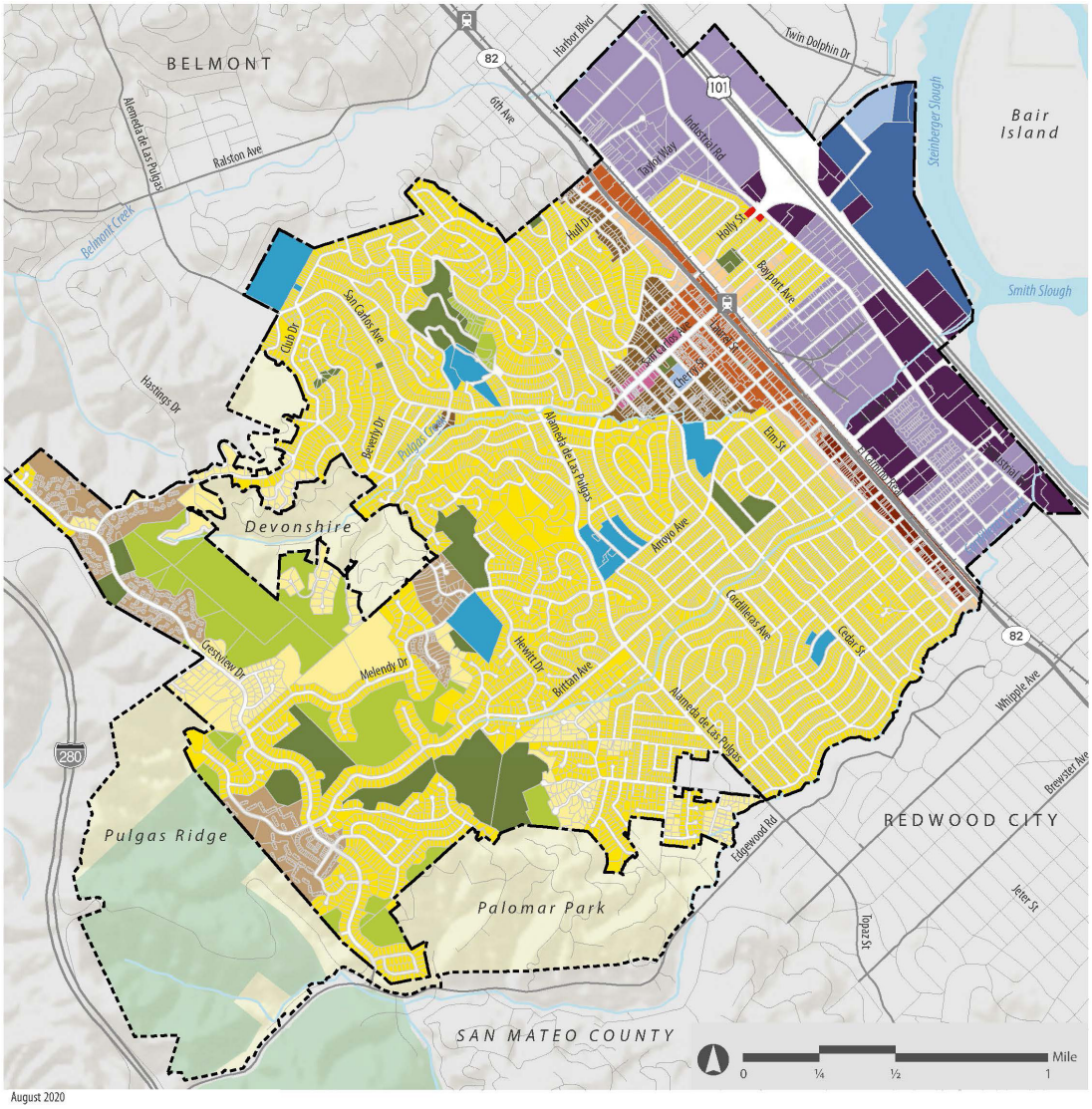
MIG

**Existing General Plan Designations**

- Single-Family, Low Density (3 DUs/Ac)
- Single-Family (6 DUs/Ac)
- Multi-Family, Low Density (10-20 DUs/Ac)
- Multi-Family, Medium Density (21-59 DUs/Ac)
- Mixed Use, Low Density (10-20 DUs/Ac)
- Mixed Use, Medium Density (21-50 DUs/Ac)
- Mixed Use, Medium High Density (21-59 DUs/Ac)
- Neighborhood Retail/Mixed Use (21-50 DUs/Ac)
- Neighborhood Retail
- Planned Industrial
- General Commercial - Industrial
- Public
- Park
- Open Space
- Open Space - Schools
- Airport

**Base Map Features**

- City of San Carlos Boundary
- Sphere of Influence
- Major Streets
- Streets
- Caltrain Railroad and Stations
- Surrounding Jurisdictions
- Parks and Open Space
- Waterbodies




August 2020

Sources: United States Census Bureau, 2019. City of San Carlos, County of San Mateo, Urban Footprint, 2020.

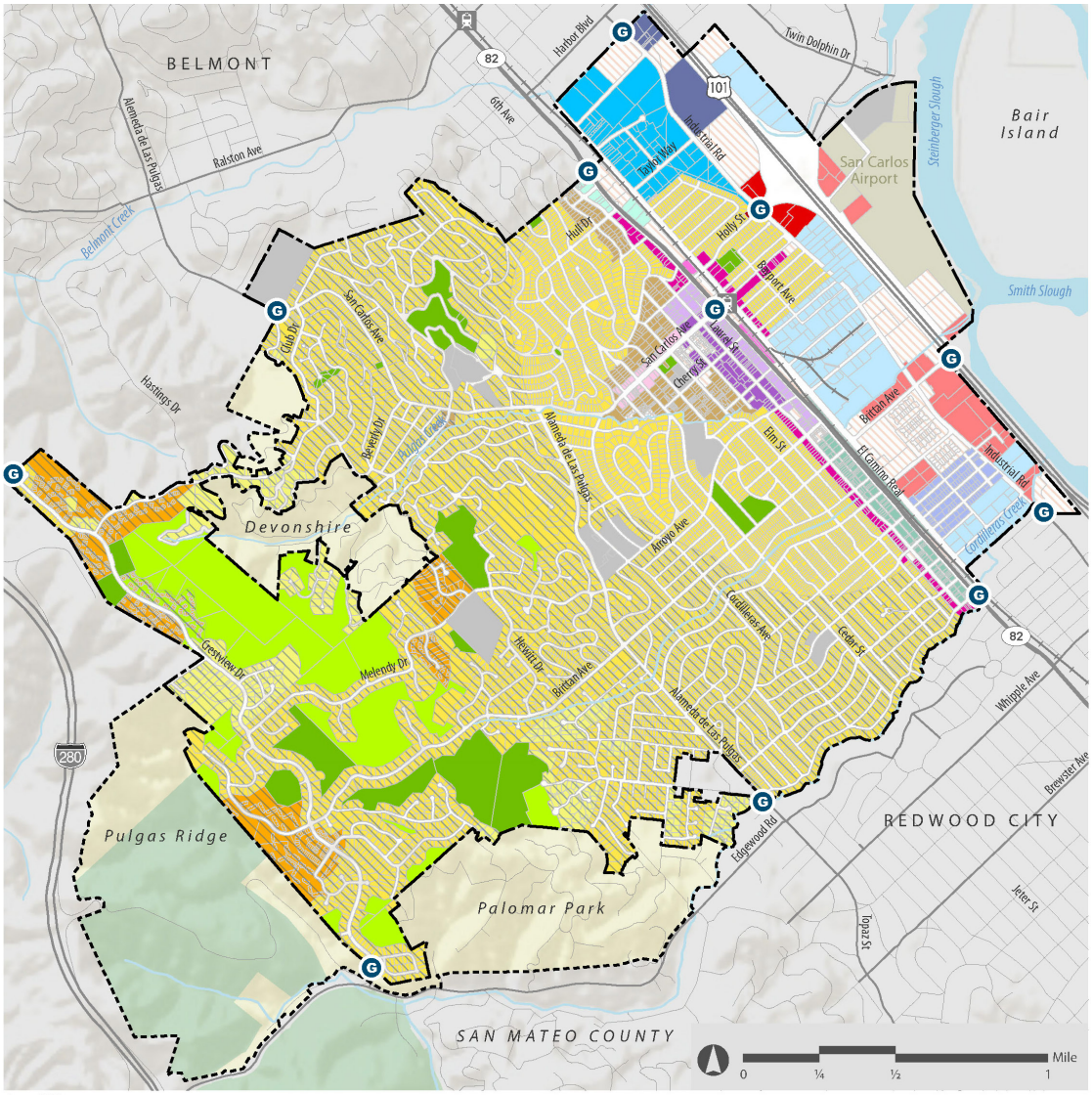
*Source: San Carlos General Plan 2020; MIG 2022*

**Figure 3-4** Existing General Plan Land Use

*Focused General Plan Update*

**Existing Zoning Designations**

- RS-3: Single-Family, Low Density
- RS-6: Single-Family
- RM-20: Multi-Family, Low Density
- RM-59: Multi-Family, Medium Density
- MU-NB: Mixed Use North Boulevard
- MU-SB: Mixed Use South Boulevard
- MU-D: Mixed Use Downtown
- MU-DC: Mixed Use Downtown Core
- MU-N: Neighborhood Mixed Use
- MU-SA: Mixed Use Station Area
- MU-SC: Mixed Use San Carlos Ave
- IL: Light Industrial
- IH: Heavy Industrial
- IA: Industrial Arts
- IP: Industrial Professional
- GCI: General Commercial/Industrial
- LC: Landmark Commercial
- NR: Neighborhood Retail
- PD: Planned Development
- A: Airport
- P: Public
- PK: Park
- OS: Open Space
- Neighborhood Hub Overlay
- Gateway Overlay District




August 2020

Sources: United States Census Bureau, 2019. City of San Carlos, County of San Mateo, Urban Footprint, 2020.

*Source: San Carlos General Plan 2020; MIG 2022*

**Figure 3-5** Existing Zoning

*Focused General Plan Update*

### 3.3.2 Housing Element Update

The City of San Carlos has been assigned a RHNA of 2,735 new housing units for the 2023-2031 planning period. This is broken down into 739 extremely-low/very low-income units, 425 low income units, 438 moderate income units, and 1,133 above moderate income units. The RHNA assignment represents 22 percent of the existing housing units within the City limits. Because the Housing Element must plan for or have policies in place to accommodate the RHNA assignment in any given planning period, jurisdictions typically plan for a slightly higher number of housing units than the actual RHNA assignment. This allows for some market variation and demand. In addition, as HCD completes their review of the Housing Element, some of these sites may be removed. For the purposes of this CEQA document, the City is planning for and evaluating a total of 3,576 units (2,735 RHNA + 841 buffer units).

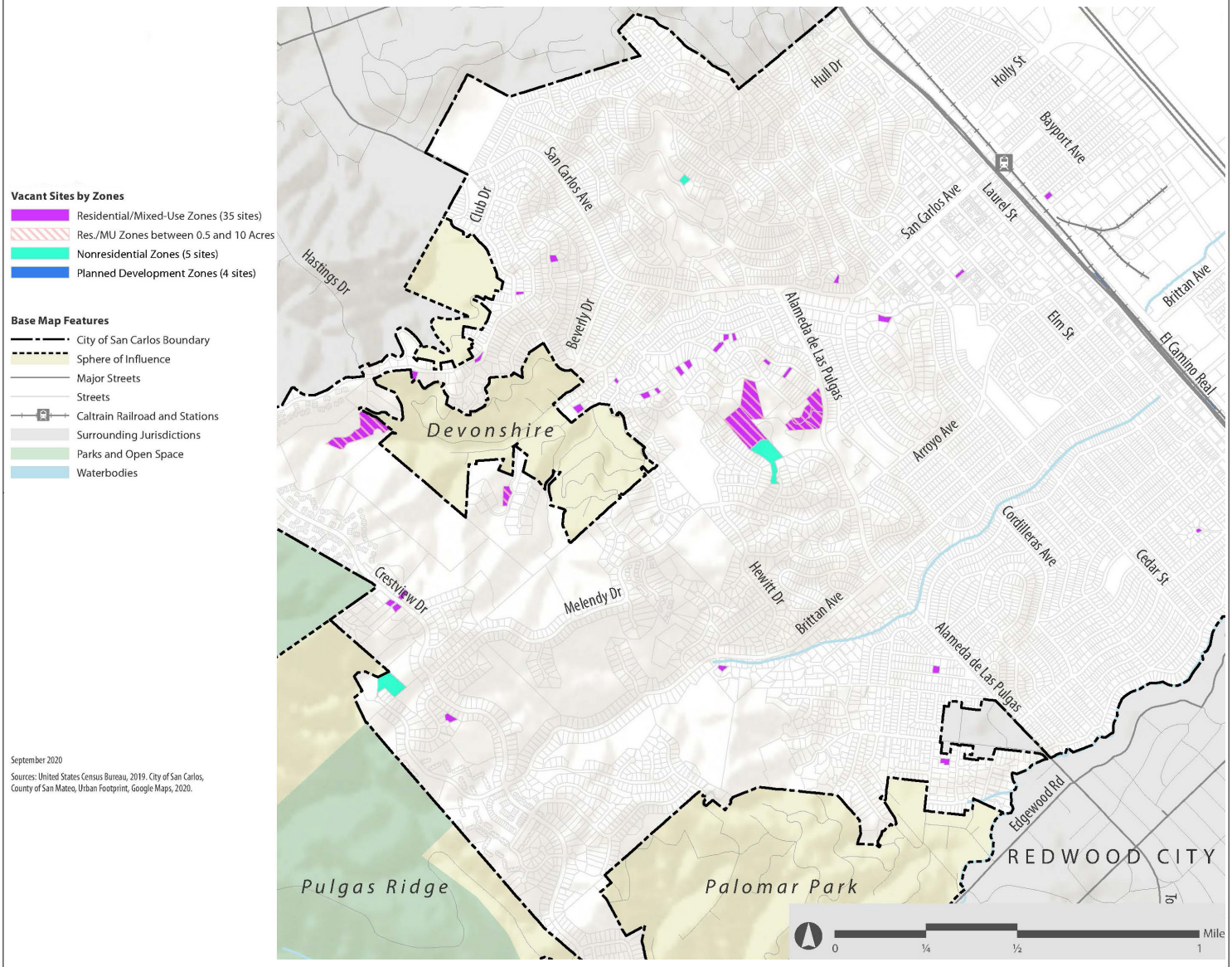
Housing elements identify possible sites where future homes can be built, called "opportunity sites", and identify the potential number of homes that can be built on these sites. The opportunity sites identified in the updated Housing Element consist of the following categories and potential numbers of units in Table 3-2:

**Table 3-2: Comparison of Sites, Pipeline Projects, and RHNA**

| | Extremely/ Very Low-Income (0-50% AMI*) | Low-Income (50-80% AMI) | Moderate-Income (0-120% AMI) | Above-Moderate Income (+120%) | Total |
|---|---|---|---|---|---|
| **2023 – 2031 RHNA** | **739** | **425** | **438** | **1,133** | **2,735** |
| Approved/Proposed Projects | 3 | 63 | 7 | 279 | 352 |
| Projected ADU Construction | 10 | 61 | 102 | 30 | 203 |
| Projected SB 9 Duplex Construction | - | - | - | 160 | 160 |
| Vacant/Underutilized Residential Sites | 49 | 0 | 159 | 184 | 392 |
| Vacant/Underutilized Mixed-Use Sites | 1,490 | 0 | 470 | 509 | 2,469 |
| **Total** | **1,552** | **124** | **738** | **1,162** | **3,576** |

*AMI = Area Median Income

San Carlos anticipates accommodating the new housing by increasing the allowed housing density (units/net acre) in certain zoning designations and certain areas within the project area. In addition to approved and proposed projects in the pipeline, the City proposes to meet the RHNA through accessory dwelling unit (ADU) projections, SB 9 duplex construction projections, and vacant and underutilized sites in residential and mixed-use areas (see Figure 3-6).




Source: San Carlos General Plan 2020; MIG 2022

**Figure 3-6** Opportunity Sites Inventory

*Focused General Plan Update*

## Approved/Proposed Projects

The "projection period" is the time period for which the RHNA is calculated (Government Code Section 65588(f)(2)). Projects that have been approved, permitted, or received a certificate of occupancy since the beginning of the RHNA projected period may be credited toward meeting the RHNA allocation based on the affordability and unit count of the development. ABAG's sixth cycle RHNA projection period is June 30, 2022 through December 15, 2030.[3] Proposed and approved residential development projects credited toward the 2023-2031 include a variety of affordable and market rate projects, as outlined in Table 3-3.

## SB 9 Duplexes

In September 2021, Governor Newsom signed California Senate Bill 9 (SB 9) into law, with an effective date of January 1, 2022. SB 9 mandates ministerial approval of duplexes on lots zoned for a single-family residence and requires ministerial approval of subdivisions of a single-family lot into two lots, creating the theoretical possibility of four units on each single-family parcel in the state (with some exceptions). SB 9 construction is limited to single-family zones.

**Table 3-3: Approved and Proposed Projects**

| Project | Project Status | Extremely/ Very Low-Income (0-50% AMI) | Low-Income (50-80% AMI) | Moderate-Income (0-120% AMI) | Above-Moderate Income (+120%) | Total |
|---|---|---|---|---|---|---|
| 626 Walnut | Planning Approval[1] | 0 | 3 | 1 | 35 | 39 |
| 782 Elm | Planning Approval | 0 | 0 | 0 | 4 | 4 |
| 1257 Magnolia | Planning Approval | 0 | 0 | 0 | 9 | 9 |
| 560 El Camino Real | Under Construction | 0 | 1 | 2 | 21 | 24 |
| 616 Cedar | Under Construction | 0 | 0 | 0 | 4 | 4 |
| 1525 San Carlos Ave | Under Construction | 0 | 1 | 2 | 15 | 18 |
| 1240 El Camino Real | Under Construction | 0 | 0 | 1 | 7 | 8 |
| 1232 Cherry | City Project/Design Phase[2] | 0 | 35 | 0 | 0 | 35 |
| 155-160 Vista Del Grande | Application has been submitted to City for review | 0 | 11 | 0 | 78 | 89 |
| 308 Phelps | Application has been submitted to City for review | 1 | 2 | 1 | 10 | 14 |
| 806 Alameda de las Pulgas | Application has been submitted to City for review | 0 | 10 | 0 | 77 | 87 |

[3] The RHNA projection period varies slightly from the Housing Element planning period, which refers to the date the Housing Element is due to be adopted and the duration of the eight-year term. The Housing Element planning period for the sixth cycle in the ABAG region is January 31, 2023 through January 31, 2031.

| Table 3-3: Approved and Proposed Projects | | | | | | |
|---|---|---|---|---|---|---|
| **Project** | **Project Status** | **Extremely/ Very Low-Income (0-50% AMI)** | **Low-Income (50-80% AMI)** | **Moderate-Income (0-120% AMI)** | **Above-Moderate Income (+120%)** | **Total** |
| 1360 Cherry | Application has been submitted to City for review | 0 | 0 | 0 | 6 | 6 |
| 1383 Laurel | Application has been submitted to City for review | 2 | 0 | 0 | 13 | 15 |
| | **Total** | **3** | **63** | **7** | **279** | **352** |
| | **Remaining RHNA** | **736** | **362** | **431** | **854** | **2,383** |

[1] Planning Approval means the project has received Planning entitlement.
[2] City Project/Design Phase means that the project's design is underway and City staff may be working with the tentative project applicant or designer; a formal application has not yet been submitted to City of San Carlos.

As part of the analysis completed to support the Housing Element update, the City's consultant team identified 2,136 parcels in single-family zones that are greater than or equal to 0.2 acres (greater than the average lot size for the RS-3 and RS-6 zones of 0.18 acres). When specific parcels are removed from the count, 1,068 parcels remain.[4] Using a conservative estimate that 15 percent of the 1,068 parcels may be developed with SB9 units in the next eight years, this would result in 160 additional housing units.

### Accessory Dwelling Units (ADUs)

Since 2017, the California State Legislature passed a series of laws increasing the potential for new ADUs and Junior ADUs (JADUs) development. The laws remove development barriers, allow ADUs to be processed with ministerial permits, and require jurisdictions to include programs in their housing element to incentivize ADU development. The recent past has shown that San Carlos property owners have a high interest in constructing ADUs and the interest continues to grow. Table 3-4 shows recent ADU construction interest.

| Table 3-4: Recent ADU Construction Interest | |
|---|---|
| **Calendar Year** | **ADUs Constructed (Building Permits Issued)** |
| 2018 | 19 |
| 2019 | 14 |
| 2020 | 29 |
| 2021 | 33 |
| **Total** | **95** |

[4] Parcels are removed because they contain a use other than a single-unit home (and are thus unlikely to redevelop via SB 9 allowances) or are vacant, or the parcel is located in a very high fire severity zone.

Given an average of recent historical trends, a total of 203 ADUs can be predicted to be constructed during the planning period (approximately 24 ADUs per year). ADUs are permitted in all zones that allow residential uses.

**Vacant and Underutilized Opportunity Sites**

Consistent with HCD guidelines, methodology for determining realistic capacity on each identified opportunity site must account for land use controls and site improvements. The Housing Element opportunity sites inventory surveyed large-scale residential and mixed-use development projects approved since 2015 to establish estimates related to potential development. Combined, all approved residential and mixed-use projects since 2015 had an average density of 86 percent of the maximum allowable density. Residential zones had a lower average of 53 percent of allowed capacity. Mixed use zones had an actual density of 107 percent of allowed density, due to extensive use of the State Density Bonus law. In multi-unit residential and mixed-use zones, a minimum density requirement is being implemented as part of Zoning Ordinance amendments proposed by the project and planned for early 2023. As such, for the opportunity sites' realistic capacity, the minimum required density is used.

To consider the potential for nonresidential development, the City reviewed all projects (residential and nonresidential) in mixed-use zones since 2015. During that time, 23 projects were developed, of which three (or 13 percent) were nonresidential. The remaining 20 projects (87 percent) were residential or mixed-use. To provide a conservative estimate of realistic capacity for the sites inventory, an 85 percent multiplier is applied in mixed-use zones to account for potential redevelopment with nonresidential uses.

The Housing Element contains goals, policies, and implementation programs to address housing needs in the community, reduce/remove constraints to housing development, identify resources available to address housing needs, and promote equal housing opportunities for all people. Appendix B contains the proposed Housing Element.

### 3.3.3 Environmental Safety and Public Services Element Update

As noted previously, recent State legislation is in effect since the City's Community Safety and Services Element was last updated and adopted in 2009. The San Carlos Community Safety and Services Element, now being renamed the Environmental Safety and Public Services Element under the project, is being updated as necessary as part of the project to address climate adaptation and resiliency strategies and ensure consistency with the 2021 San Mateo County Multi-Jurisdictional Local Hazard Mitigation Plan. The wildfire policies will be reviewed and approved by CALFIRE.

The Environmental Safety and Public Services Element Update contains goals, policies, and actions to reduce the risks associated with environmental hazards. The proposed goals, policies, and actions focus on building the resilience of the community and the built environment against hazards, including geologic and seismic hazards, flooding and sea level rise, wildfire, poor air quality and climate change effects, including extreme weather events, hazardous materials, and

aviation hazards from the San Carlos Airport. The Environmental Safety and Public Services Element also address crime prevention and police services, fire prevention and suppression services, and disaster preparedness and evacuation. The Environmental Safety and Public Services Element's proposed implementation programs consist of procedures, permits, agreements, and ordinances; special projects; outreach and education programs; and interagency and other organizations consultation.

New goals contained in the proposed Environmental Safety and Public Services Element include:

- Goal ESPS-3 Agency Coordination: A resilient San Carlos is well prepared to minimize risks associated with wildfire.
- Goal ESPS-4 Develop a community that proactively prevents wildfires and protects life, property, and infrastructure from urban and wildfire impacts.
- Goal ESPS-8 A community that is resilient against changing climate conditions.
- Goal ESPS-9: The City of San Carlos has a sustainable and resilient water supply despite potential for more frequent and severe drought conditions.
- Goal ESPS 10 A community that is resilient during and after extreme heat and severe weather events.
- Goal ESPS 11 A community that is protected against sea level rise and safeguards the natural and built environment from inundation due to rising sea levels.
- Goal ESPS 12 A community protected against rising groundwater levels caused by sea level rise.

Full text of the proposed Environmental Safety and Public Services Element Update with proposed policies and action items as well as minor edits related to flooding and hazardous materials and waste can be found in Appendix B.

### 3.3.4 Land Use Element Update

The Land Use Element would be updated to ensure consistency with the Housing and the Environmental Safety and Public Services Elements Updates. This includes updating the General Plan map (see Figure 3-7 for proposed land use) and zoning designations (see Figure 3-8 for proposed zoning) to reflect the up-zoning required to implement the Housing Element, ensuring mixed-use development is sensitively designed as residential development, and requiring new and substantially remodeled development in the Very High and High Fire Susceptibility Zones are improved in accordance with Building Codes in place at the time of construction.

The following describes the proposed land use designations for the General Plan Update (new text shown in <u>underline</u> and deleted text shown in ~~strikeout~~):

- Single-Family, ~~Low Density~~ <u>3 du/ac</u> permits single-family homes at densities of up to three dwelling units per acre.
- Single-Family, <u>6 du/ac</u> permits single-family homes at densities of up to six dwelling units per acre.

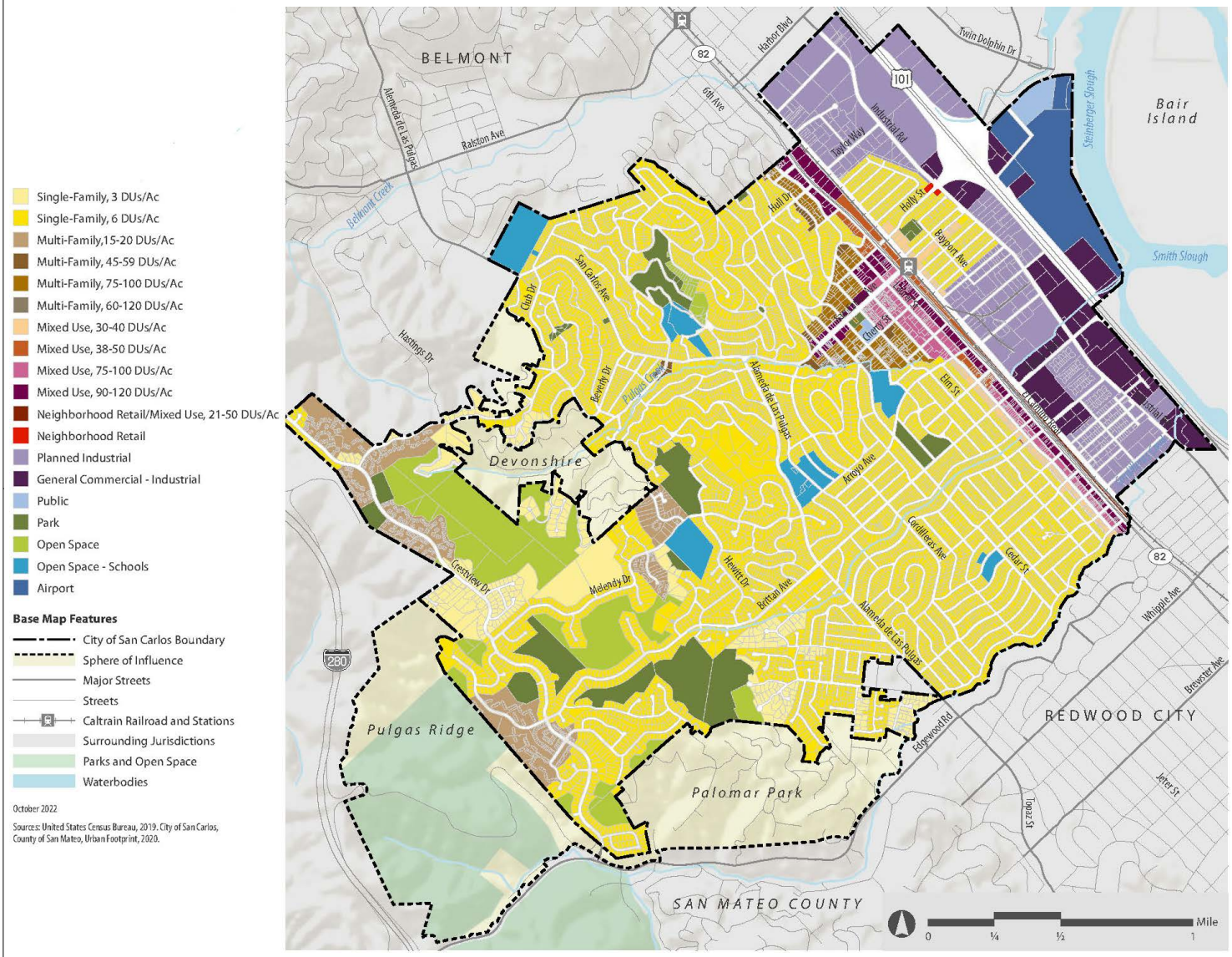



**Figure 3-7** Proposed Land Use

*San Carlos Housing and Safety Elements*

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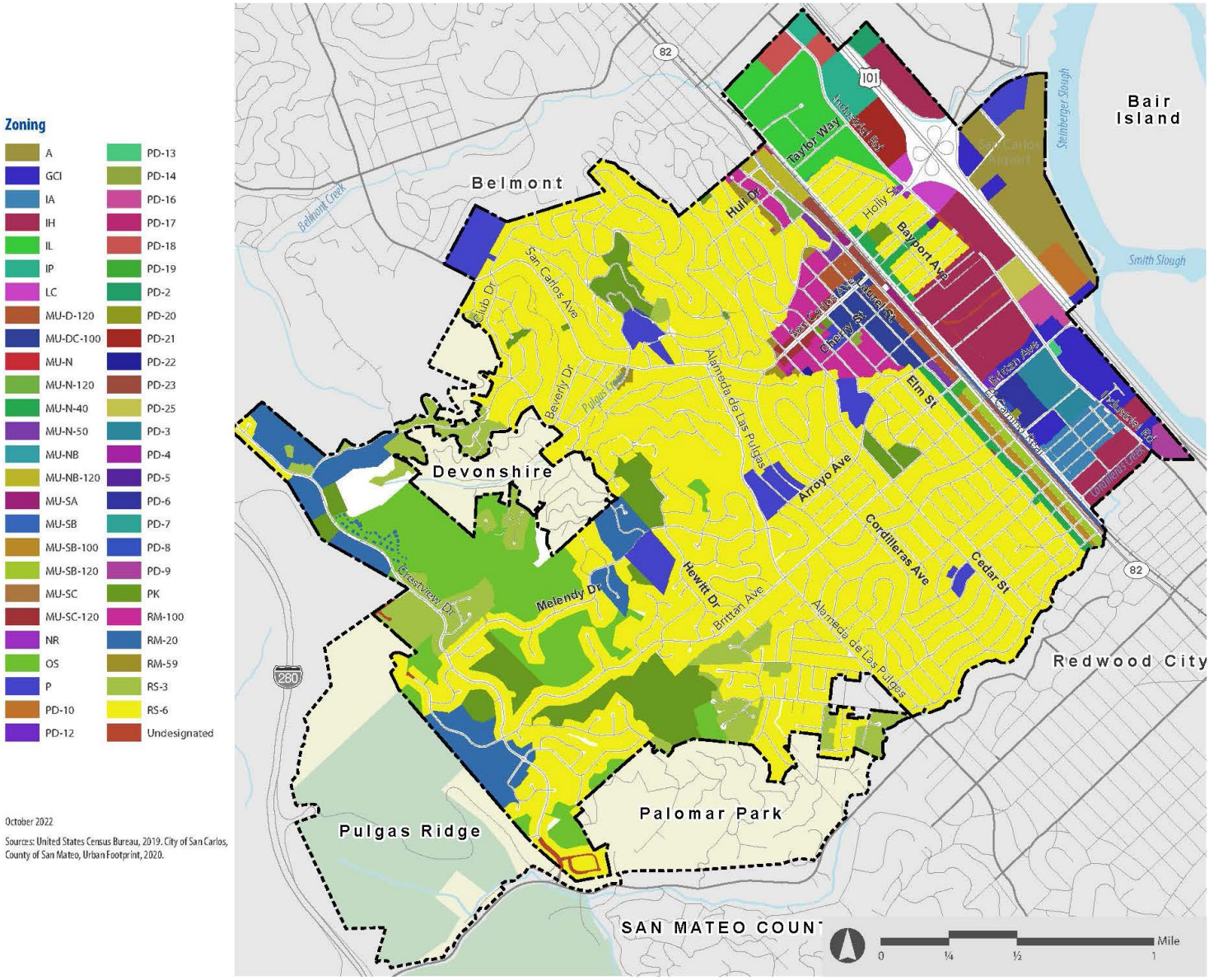


**Figure 3-8** Proposed Zoning

*San Carlos Housing and Safety Elements*

- Multiple-Family, ~~Low Density~~ 15- 20 du/ac permits multi-family dwellings at densities ~~of 10~~ 15to 20 dwelling units per acre.
- Multiple-Family, ~~Medium Density~~ 46- 59 du/ac permits multi- family dwellings at densities of 46-59 dwelling units per acre.
- Multiple-Family, 75- 100 du/ac permits multi-family dwellings at densities of 75- 100 dwelling units per acre.
- Multiple Family, 90-120 du/ac permits multi-family dwellings at densities of 90 to 120 dwelling units per acre.
- Mixed Use, 30-40 du/ac permits both commercial and multi-family residential uses at residential densities of 30-40 dwellings units per acre.
- Mixed Use, ~~Low Density~~ 38-50 du/ac permits both commercial and multi-family residential uses at residential densities of ~~10 to 20~~ 38-50 dwellings units per acre.
- Mixed Use, ~~Medium Density 75-~~100 du/ac permits both commercial and multi-family residential uses at residential densities of ~~50 75-~~100 dwellings units per acre.
- Mixed Use, ~~Medium High Density~~ 90-120 du/ac permits both commercial and multi-family residential uses at residential densities of ~~59 90-~~120 dwellings units per acre

Land Use Element Table 3-2 General Plan Land Use Designations shall be revised as follows:

| **Updated Land Use Element Table 3-2** | | |
|---|---|---|
| **Designation** | **Acres** | **Percent** |
| Single Family, 3 du/ac | 158.3 | 5.7% |
| Single Family, 6 du/ac | 1,416.4 | 50.6% |
| Multi-Family, 15-20 du/ac | 126.8 | 4.5% |
| Multi-Family, 46-59 du/ac | 7.1 | Less than 1% |
| Multi-Family, 75-100 du/ac | 42.1 | 1.5% |
| Multi-Family, 90-120 du/ac | 2.0 | Less than 1% |
| Mixed Use, 30-40 du/ac | 20.6 | Less than 1% |
| Mixed Use, 38-50 du/ac | 18.1 | Less than 1% |
| Mixed Use, 75-100 du/ac | 32.6 | 1.2% |
| Mixed Use, 90-120 du/ac | 43.1 | 1.5% |
| Neighborhood Retail & Mixed Use, 21-50 du/ac | 6.1 | Less than 1% |
| Neighborhood Retail | 0.8 | Less than 1% |
| Planned Industrial | 307.1 | 11% |
| General Commercial – Industrial | 118.7 | 4.2% |
| Public | 13.6 | Less than 1% |
| Park | 143.3 | Less than 1% |
| Open Space | 186.1 | 6.7% |
| Open Space – Schools | 71.0 | 2.5% |
| Airport | 85.4 | 3.1% |
| Total[1] | 2.799 | 100% |

The 19 different land use designations in this Element establish a range of densities and intensities of use to provide flexibility for development while still maintaining San Carlos' existing character. The development levels listed here do not create entitlements to a specific number of dwelling

units or amount of floor area ratio. Densities on individual parcels may be lower due to site constraints or other City regulations.

The following are the proposed changes to the current General Plan Land Use Element policies and actions text (proposed new text is shown in underline while deleted text is shown with ~~strikethrough~~):

- Policy LU-1.6 Consider reduced parking requirements for multi-family residential and mixed-use projects within the TOD corridor. ~~Reduced parking requirements may be permitted only if a parking study is submitted demonstrating that the reduced parking is adequate to accommodate on-site parking demand associated with the project.~~

- Action LU-1.8 Amend the Zoning Ordinance to address the new multiple family and mixed-use designations.

- Policy LU-8.2 Ensure that new development ~~is sensitive~~ sensitively transitions to the character of adjacent structures and the immediate neighborhood.
- Policy LU-8.7 Encourage ~~Require~~ new residential development to provide outdoor areas and landscaping or native vegetation, or tree canopy to enhance the surroundings.

- Policy LU-8.19 Residential and mixed-use structures shall be designed to be compatible with existing structures in the vicinity, ~~avoid~~ minimize obstructing views from adjacent structures or views of community importance, ~~avoid~~ minimize interference with the right or ability to use solar energy and be consistent with the community design principles.

- Policy LU-8.20 Require all new residential multi-family residential, commercial, and industrial projects subject to design review by the appropriate decision- making body for compliance with site planning, architecture, signing, and landscaping criteria prior to approval**,** as permitted by State law**.**

- ~~Action LU-8.3Amend the Zoning Ordinance to limit the height of building walls at the street-facing property line to two stories on the 600, 700 and 800 blocks of Laurel Street. Additional stories may be permitted if they are stepped back a minimum distance from the ground-level building wall.~~
- Action LU-8.4~~5~~ Develop objective design standards consistent with State law and amend the Zoning Ordinance and Planning Division ~~Department~~ application submittal checklist to require information and materials that accurately and sufficiently demonstrate a project's compliance with new objective design standards ~~architectural facade and design policies~~.
- Action 8-6 changed to 8-5 due to removal of Policy 8.3.
- Policy LU-9.5 Require buffering, screening, ~~setbacks~~ transitional standard, or other measures for new and expanded multi-family residential, mixed use, and/or commercial/industrial developments adjacent to single-family residential neighborhoods to minimize impacts.

- Policy LU-9.10 In the event of closure of a school, the primary planned use of these sites remains for school and associated recreation purposes, or housing**.** The school site should be considered for acquisition by the City.

- Policy LU-9.14 Legally nonconforming multi-family residential structures located within multi-family residential zoning districts may be replaced, restored, rebuilt, or repaired and used consistent with the Zoning Ordinance in effect at the time ~~the structure was originally constructed only upon issuance of a conditional use permit approved by the Planning Commission.~~at the time of the replacement, restoring, rebuilding, or repairing.

- Action LU-9.2 Amend the Zoning Ordinance to include objective design standards, transitional design standards for multi-family residential buildings and commercial uses adjacent to single-family homes**,** as appropriate. ~~Standards may include height limitations, increased setbacks, landscaping requirements and density limitations.~~

- ~~Action LU-9.3 Consider amending the Zoning Ordinance to require courtesy notification of nearby residents for any multi- family residential use or commercial use proposed in immediate proximity to a single-family residential neighborhood~~

- Policy LU-10.6 Require all new development and significantly modified development in the High and Very High Fire Susceptibility Zones to install and maintain fire prevention design and materials in accordance with Building Codes at the time of the construction/reconstruction.

Other text edits in the Land Use Element acknowledge the renamed Environmental Safety and Public Services Element, 2023 Focused General Plan Update, adding new single-family residences as ADUs (in addition to on vacant parcels and as rebuilt or remodeled homes in existing single-family neighborhoods), updating the number of housing units in the City, and accommodating growth in the mixed-use land use.

### 3.3.5 Circulation and Scenic Highway Element Update

The Circulation and Scenic Highway Element is updated to ensure consistency with the Housing and the Environmental Safety and Public Services Elements. Two policies are updated as follows (new text shown in underline text):

- Policy CSH-1.1. Widths of streets and highways should be sufficient to address existing and projected traffic volumes, emergency access requirements, while providing positive pedestrian and bicycle experiences.
- Policy CSH-3.5. Street and right-of-way widths should be designed and constructed in accordance with the street standards established in this plan, the City Subdivision Ordinance and Standard Details. However, flexibility for street widths should be permitted with sensitivity to slope, neighborhood character, traffic volume, emergency access requirements, and pedestrian/bicycle needs.

### 3.3.6 Environmental Management Element Update

One action is updated to ensure consistency with the Housing and the Environmental Safety and Public Services Elements.

- Action EM-11.3. Design streets to accommodate all modes of transportation, <u>including emergency vehicles,</u> and provide for a safe and attractive pedestrian experience.

### 3.3.7 Noise Element Update

One policy is updated to ensure consistency with the Housing and the Environmental Safety and Public Services Elements.

- Policy NOI-1.5B. For new multi-family residential development maintain a standard of 65 Ldn 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~~.

### 3.3.8 Title 18 (Zoning) and General Plan Land Use Amendments

Amendments to the City's Zoning Ordinance (Title 18 of the San Carlos Municipal Code) would be initiated to allow for fulfilment of the City's RHNA by increasing the residential density within certain zoning designations, as well as by creating new zoning designations. The proposed Zoning Ordinance amendments are anticipated to include single-family residential (e.g., in response to SB-9), multi-family residential and mixed-use categories, which would provide for development of some lower-level commercial/retail, and office. New zoning designations would include Multi-Family and Mixed-Use designations that would allow up to 120 dwelling units per acre. The new, higher density residential and mixed-use zoning designations would occur primarily along the El Camino Real corridor, San Carlos Avenue corridor, and in the Downtown area west of El Camino Real. In addition to the proposed density increases, the City proposes to revise required Development Standards for residential and mixed-use zoning districts such as setbacks, FAR, parking, landscaping, private open space, and other development related requirements. The Land Use and Zoning Maps will also be updated to reflect these changes (see Figure 3-7 and Figure 3-8).

As discussed above, the Land Use Element would be updated to ensure consistency with the Housing and the Environmental Safety and Public Services Elements. These updates would ensure consistency between the General Plan and Title 18, Zoning as required by State law. New Multi-Family and Mixed-Use General Plan Land Use designations would be created along the El Camino Real and San Carlos Avenue corridors and the Downtown area west of El Camino Real. Zoning districts would be updated to correspond to the new General Plan land use designations. The proposed Title 18 and Zoning Map amendments are necessary to support the Housing Element update, and include creating a new multiple family residential zone (RM-100), and increasing residential densities in certain mixed use zones as shown in Table 3-5.

| Table 3-5: Proposed Zones and Densities | | | |
|---|---|---|---|
| **Existing Zone** | **Renamed Zone** | **Existing Density (units/acre)** | **Proposed Density (units/acre)** |
| MU-N | MU-N-40 | 20 | 40 |
| MU-N | MU-N-50 | 20 | 50 |
| MU-N | MU-N-120 | 20 | 120 |
| MU-DC | MU-DC-100 | 50 | 100 |
| MU-D | MU-D-100 | 50 | 100 |
| MU-D | MU-D-120 | 50 | 120 |
| MU-SC | MU-SC-120 | 50 | 120 |
| MU-NB | MU-NB-120 | 50 | 120 |
| MU-SB | MU-SB-100 | 50 | 100 |
| MU-SB | MU-SB-120 | 50 | 120 |

The updated/revised General Plan designations and corresponding zones are provided in Table 3-6, below.

| Table 3-6: Revised General Plan Land Use Designations and Corresponding Zones | | |
|---|---|---|
| **Name*** <br><br> ***The lower density # = 75% of the max density** | **Description of Change** | **Corresponding Zones** |
| Multi-Family Low Density (15-20) | Existing Designation/Range Change | RM-20 |
| Multi-Family, Medium Density (-45-59) | Existing Designation/Range Change | RM-59 |
| Multi-Family, Medium High Density (75-100) | New | RM-100 |
| Mixed Use, Low Density (30-40) | New | MU-N-40 |
| Mixed Use, Medium Density (38-50) | Existing Designation/Range Change | MU-N-50 |
| Mixed Use, Medium High Density (75-100) | Existing Designation/Range Change | MU-DC-100<br>MU-D-100<br>MU-SB-100 |
| Mixed Use, High (90-120) | New | MU-D-120<br>MU-SC-120<br>MU-NB-120<br>MU-SB-120<br>MU-N-120 |

The proposed amendments also include updating the development/design standards to remove housing development constraints (such as setbacks, height, and parking) and reflect recent changes in State law, and to better reflect current development practices and the new density changes. These proposed amendments reflect the City's planning for additional single units (e.g., anticipated units from SB9 and ADUs), and additional multi-unit housing types in the multi-unit zones and in the mixed-use zones. New and amended zoning designations would include Multi-Unit and Mixed-Use designations that would allow up to 120 dwelling units per acre along El Camino Real and San Carlos Avenue.

The project includes goals, policies, and actions with amendments to the Title 18 of the Municipal Code to be enacted after adoption of the Focused General Plan Update project; however, this EIR contemplates these actions as implementing programs and activities of the project. The purpose of the amendments is to make Title 18 consistent with the goals, policies, and programs of the project. Amendments to Title 18 necessary to implement these programs will be adopted for the "opportunity sites," to implement the Housing and Safety Elements, and as necessary to meet the RHNA.

## 3.4 INTENDED USES OF THE PROGRAM EIR

As the Lead Agency, the City intends this Program EIR to serve as the CEQA-required environmental documentation for consideration by other Responsible Agencies and Trustee Agencies (defined the CEQA Guidelines Sections 15381 and 15386) that may have limited discretionary authority over future projects affected by the General Plan. Following certification of this Program EIR and adoption of the General Plan by the City of San Carlos (Lead Agency), other agencies may use this Program EIR in the approval of subsequent implementation activities. These agencies may include, but are not limited, to those listed below.

### Local Agencies

- San Mateo County

### Regional and State Agencies

- San Mateo County Local Agency Formation Commission (LAFCO)
- Association of Bay Area Governments (ABAG)
- Bay Conservation and Development Commission (BCDC)
- Bay Area Air Quality Management District (BAAQMD)
- California Department of Conservation
- California Department of Fish and Wildlife (CDFW)
- California Department of Housing and Community Development (HCD)
- California Department of Toxic Substance Control (DTSC)
- California Department of Transportation (Caltrans)
- California Public Utilities Commission (CPUC)
- Metropolitan Transportation Commission (MTC)

- San Francisco Bay Regional Water Quality Control Board (RWQCB)
- Silicon Valley Clean Water (SVCW)

### Federal Agencies

- U.S. Army Corps of Engineers (USACE)
- U.S. Fish and Wildlife Services (USFWS)

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# CHAPTER 4.0: IMPACT ANALYSIS

This section presents the discussion of impacts related to the following subjects in their respective subsections:

| | | | |
|---|---|---|---|
| 4.1 | Aesthetics | 4.9 | Hydrology and Water Quality |
| 4.2 | Air Quality | 4.10 | Land Use |
| 4.3 | Biological Resources | 4.11 | Noise |
| 4.4 | Cultural and Tribal Cultural Resources | 4.12 | Population and Housing |
| 4.5 | Energy | 4.13 | Public Services and Recreation |
| 4.6 | Geology and Soils | 4.14 | Transportation |
| 4.7 | Greenhouse Gases | 4.15 | Utilities and Services |
| 4.8 | Hazards and Hazardous Materials | 4.16 | Wildfire |

The discussion for each environmental subject includes the following subsections:

**Environmental Setting –** This subsection describes the existing, physical environmental conditions in the project area and in the surrounding area, as relevant.

**Regulatory Setting -** This subsection provides a brief overview of relevant laws, plans, policies, and regulations that compose the regulatory framework for the project.

**Significance Thresholds -** This subsection includes the recommended checklist questions from Appendix G of the CEQA Guidelines to assess impacts**.**

**Impact Discussion –** This subsection discusses the project's impact on the environmental subject as related to the checklist questions. For significant impacts, feasible mitigation measures are identified. "Mitigation measures" are measures that will minimize, avoid, or eliminate a significant impact (CEQA Guidelines Section 15370). Each impact is numbered to correspond to the checklist question being answered. For example, Impact BIO-1 answers the first checklist question in the Biological Resources section.

**References** – This subsection provides a list of references and persons consulted in the preparation of the subsection.

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# 4.1 AESTHETICS

This EIR Chapter addresses the project's potential impacts on scenic vistas and scenic resources, the potential of the project to degrade the visual character or quality of the project area, and the potential of the Focused General Plan Update (Focused GPU) to create substantial and adverse light and glare.

## 4.1.1 Environmental Setting

The City of San Carlos encompasses approximately eight square miles, nearly all of which are developed with urban land uses. San Carlos' sphere of influence includes three areas of unincorporated San Mateo County:

- Devonshire Area, which includes two non-adjacent areas: Devonshire Canyon (a County island) and a nearby 17-acre area adjacent to Club Drive, Cranfield Avenue, and the City of Belmont
- Palomar Park, a neighborhood south of the San Carlos city limit
- Pulgas Ridge (formally known as the Hassler Area), consisting of Pulgas Ridge Open Space Preserve and several San Mateo County institutional facilities

**Scenic Resources**

Scenic vistas are defined in this document as natural landscapes that provide views of unique flora, geologic or other natural features that are generally free from urban intrusions. Typical scenic vistas include views of mountains and hills, large, uninterrupted open spaces and waterbodies. Scenic vistas generally play a large role in the way a community defines itself and also affects development patterns as projects are designed to take advantage of viewsheds. Scenic vistas can be impacted by development in two ways. First, a structure may be constructed that blocks the view of the vista. Second, the vista itself may be altered (i.e., development on a scenic hillside).

San Carlos has varied topography which ranges from land at sea level in the eastern portion to the hilly western portion of the City with elevations up to 900 feet. Views of the surrounding open space west of I-280 and San Francisco Bay can be accessed in many areas west of Alameda de las Pulgas, including from City parks and open space and existing residential neighborhoods. For example, the parks located in the hilly areas near the western edge of the City (Eaton Park, Big Canyon Park, Upper Creek Trailhead, Hidden Canyon Park) provide expansive views of the Bay to the east and of the Pulgas Ridge and Edgewood Open Space Preserves and undeveloped hills west of the I-280 corridor to the west from the hiking and bicycle trails within these parks. Views of the Bay and western hills are less prominent from the flatter terrain areas in the central and eastern parts of the City, as intervening residential, commercial, and industrial development obstructs the views from these areas.

The City does not have any formally recognized scenic vistas but residents enjoy and highly value views of San Francisco Bay on the eastern side of the city and the Santa Cruz Mountains west of the city.

### Gateways to the City

Gateways are an important component of land use planning and community design that contribute to a city's character and sense of place. Gateways are locations that announce to a visitor or resident that they are entering the city or a unique neighborhood within the city. Features associated with gateways can include natural features such as a row of trees, or urban features such as signs, structural elements such as towers, fences, walls, signs, landscaping, architecturally significant buildings, or landmark structures. A landmark is defined in the City's general plan as an element by which people orient themselves and can help create a unique identity for an area. Examples of visual landmarks include statues, major works of public art, historic buildings, water towers, significant landscaping or land forms and other easily identifiable features.

Gateways in San Carlos have been classified into two categories: primary and secondary. Primary gateways are the major regional entry points into the City on roadways or transportation routes. Secondary gateways are more local entry points into San Carlos from nearby cities including Belmont and Redwood City. The best example of a primary gateway is at San Carlos Avenue and El Camino Real. This gateway is characterized by the Caltrain transit hub and historic Train Depot and the architecturally unique and historic Drake Building. This gateway has a prominent architectural signage feature that indicates the entrance to Downtown San Carlos. Combined, these features give the visitor a sense of arrival into Downtown, however, the majority of primary and secondary gateways in the City do little to announce arrival to a unique area. Holly Street at US 101 and Industrial Road, for example, is the primary access route from US 101 to San Carlos. High traffic volumes and a mixture of land uses, including residential, industrial and commercial in this area do not effectively announce to visitors their arrival in San Carlos, even though a small monument feature is installed.

The primary and secondary gateways are identified in Table 4.1-1. The location of each gateway is shown in Figure 4.1-1.

**Table 4.1-1: Primary and Secondary Gateways**

| **Primary Gateways** | |
|---|---|
| **Map ID #** | **Gateway** |
| 1 | Holly Street east of El Camino Real |
| 2 | San Carlos Avenue at El Camino Real |
| 3 | North El Camino Real |
| 4 | South El Camino Real |
| 5 | Brittan Avenue at US 101 |
| ***Secondary Gateways*** | |
| 6 | Industrial Road at the San Carlos/Redwood City limit |
| 7 | Industrial Road at the San Carlos/Belmont city limit |
| 8 | North Alameda de las Pulgas |
| 9 | South Alameda de las Pulgas |
| 10 | North Crestview Drive |

| Table 4.1-1: Primary and Secondary Gateways | |
|---|---|
| **Primary Gateways** | |
| **Map ID #** | **Gateway** |
| 11 | South Crestview Drive |

### State Scenic Highways

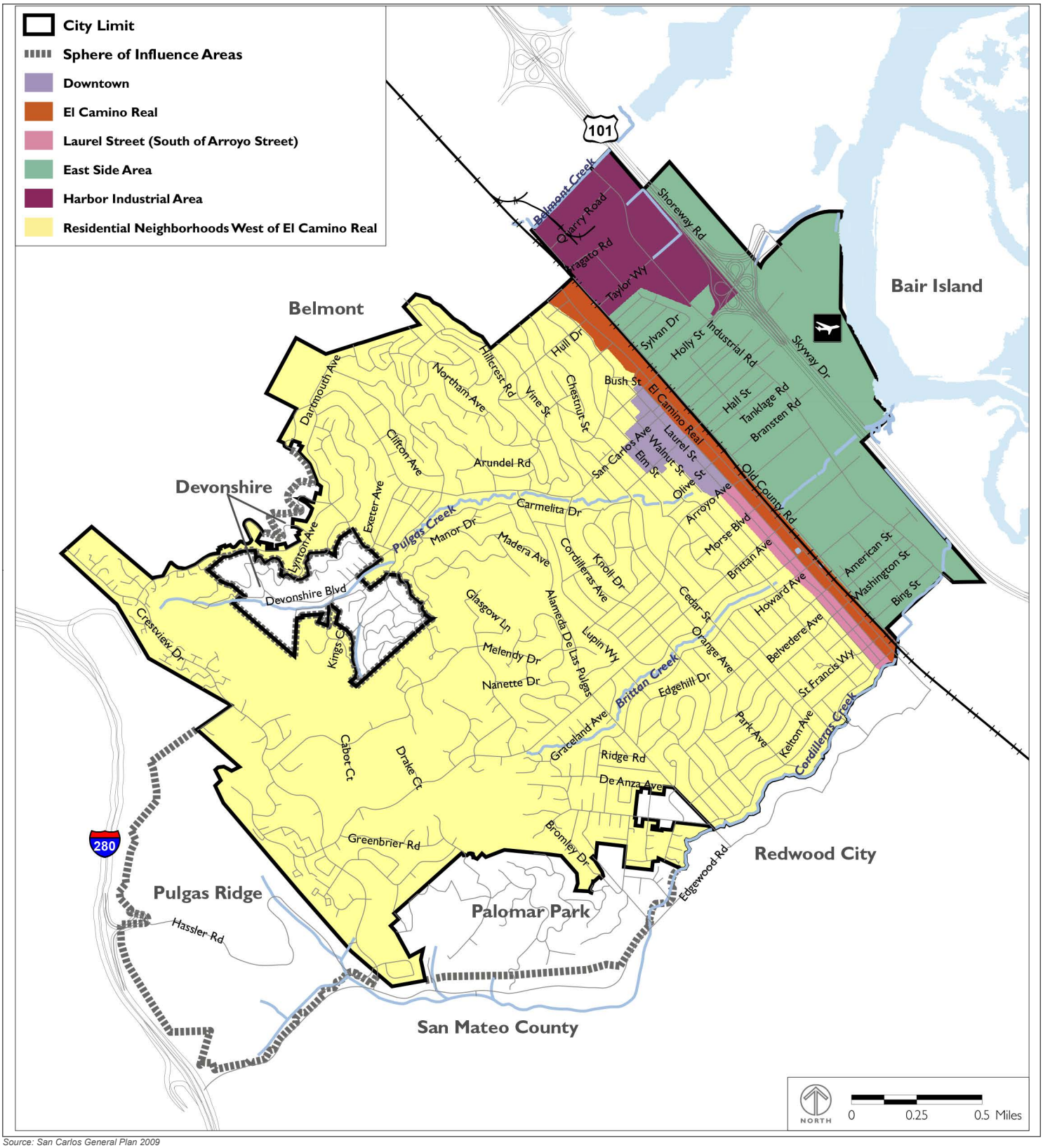
**Junipero Serra Freeway (Interstate 280).** This state freeway is a designated State Scenic Highway under the State Scenic Highway Program managed by Caltrans and from the San Mateo–Santa Clara county line to the San Bruno city limits, is officially designated as a scenic highway by Caltrans meaning that it is a substantial section of highway passing through a "memorable landscape" with no "visual intrusions", where the potential designation has gained popular favor with the community. Interstate 280 (I-280) extends the entire length of San Mateo County from Daly City to Menlo Park (28.5 miles), traversing the foothills of the San Francisco Peninsula between San Francisco and San Jose. The freeway was designed to blend with its natural surroundings and two of its bridges have won national awards for excellence in design. It runs west of the San Carlos city limits, passing within approximately 1,000 feet at its closest point. Sweeping panoramic views of the Bay and of the undeveloped hillsides to the west are visible from vista points adjacent to the roadway. However, due to the intervening topography, the freeway is not directly visible from most locations within the city limits, and views of the City from the freeway are similarly blocked by the surrounding hills. Views of I-280 are visible from the upper portions of Crestview Avenues and streets coming off of Crestview.

### County Scenic Corridors

The following roadways are described as County Scenic Corridors in the San Carlos General Plan, but are not located entirely within the city limits.

**Edgewood Road.** Edgewood Road is located immediately adjacent to the San Carlos planning area connecting Alameda de las Pulgas with Cañada Road and I-280. The rural nature of the area through which this road passes, its scenic views and surrounding land use warrant inclusion as a scenic road. Edgewood Road passes the Hetch Hetchy Aqueduct right-of-way, the Pulgas Ridge Regional Open Space and the Edgewood County Park site.

**Cañada Road.** Cañada Road is located westerly of the San Carlos planning area and within the limits of the San Francisco Watershed lands. These lands are dedicated to permanent open space providing a pleasant drive between Edgewood Road and State Route 92 to the north. It is also used extensively by bicyclists.




Source: San Carlos General Plan 2009

**Figure 4.1-1** Gateways

*Focused General Plan Update*

### City Scenic Roads

**Alameda de las Pulgas**. Alameda de las Pulgas is an arterial city street traversing north to south from San Carlos Avenue to Eaton Avenue and is lined with residential uses. The street is characterized by trees, landscaping and low- to medium-density residential development. Within San Carlos, special landscape treatment has been implemented at points along the road to enhance the corridor.

**San Carlos Avenue**. San Carlos Avenue is an arterial, urban city street traversing east to northwest between El Camino Real and Cranfield Avenue and is lined with commercial and residential uses. Some locations afford urban landscape views of hills or the San Francisco Bay. Within San Carlos, special landscape treatment has been implemented at points along the route to enhance the corridor. Tree-lined stretches of San Carlos Avenue along the Pulgas Creek open space corridor that were planted by early settler Timothy Guy Phelps in 1863 provide scenic riparian habitat. Descending into downtown San Carlos, San Carlos Avenue provides a view corridor of the historic Romanesque train station completed in 1888 and City Hall Park. Continued maintenance of the residential and commercial land uses adjacent to this route is anticipated.

**Brittan Avenue.** Brittan Avenue is an arterial street located to the south of Holly Street extending the length of the city in an east/west direction from U.S. 101 to Crestview Drive. Brittan Avenue is considered a primary entry and access to San Carlos. Street improvements have included a grade separation and landscaping. Brittan Avenue from Alameda de las Pulgas to Crestview Drive extends through a canyon representative of the natural interior coast range woodland. Single family homes front on Brittan Avenue with a backdrop of hillside open space retained in permanent City ownership. A portion of the northern side of the canyon is permanently protected by the existence of Big Canyon Park.

**Club Drive**. Club Drive extends from San Carlos Avenue to Crestview Drive. The route climbs a major ridge where significant panoramic views are available. Club Drive is generally lined with single-family residential uses with open space uses existing in the canyon below.

**Crestview Drive**. Crestview Drive extends along the major ridge in the western portion of San Carlos. The route extends from the Belmont city limit southerly to connect with Edgewood Road at the lower elevations near the headwaters of Cordilleras Creek. The route offers views of the San Francisco Bay and the undeveloped hillside areas to the west.

**El Camino Real**. El Camino Real is a State Highway paralleling the railroad extending from Redwood City on the south to Belmont on the north. Beautification efforts have included landscaped medians with left turn pockets and landscaping along the east and westsides.

**Holly Street**. Holly Street is an arterial street extending east to west from US 101 to Elm Street. Holly Street is considered a primary entry and access to San Carlos. Street improvements have included entryway decorative features, a grade separation and landscaping.

### Light and Glare

The project area is primarily urbanized, with substantial sources of existing light and glare, including streetlights along roadways, parking lots, service stations, lighted recreation facilities, and residential and non-residential buildings. The existing light and glare within the plan area is generally consistent with light and glare sources within the neighboring cities of a similar size. Structures containing glass, metal, or polished exteriors or roofing materials throughout the plan area also reflect the natural sunlight and man-made light sources that create localized daytime glare. Light pollution is created by the developed uses in the plan area. Light pollution also is referred to as "sky glow," which is a result of outdoor lighting that is directed to or reflected in the sky. Light pollution creates a visual haze of light that obscures night-sky views of celestial bodies. In areas near astronomical telescopes, such as Mt. Hamilton near San Jose and Mt. Palomar in San Diego County, light pollution is a critical concern for the continued utility of observatories. Communities near these facilities enforce stringent controls to limit the spread of light pollution. Although the plan area is not within the area of influence of the observatory at Mt. Hamilton, nor any other major research telescope, light pollution remains a concern.

## 4.1.2 Regulatory Setting

### State

<u>California Streets and Highways Code (Section 260)</u>

This code preserves and protects scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to highways. A California highway may be designated as scenic highway depending on how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes on the traveler's enjoyment of the view. When a city (or county) nominates an eligible scenic highway for official designation, it must identify and define the scenic corridor of the highway, as defined by the motorist's line of vision (a reasonable boundary is selected when the view extends to a distant horizon). The city (or county) must also adopt ordinances to preserve the scenic quality of the corridor, including: 1) regulation of land use and density of development; 2) detailed land and site planning; 3) control of outdoor advertising (including a ban on billboards); 4) careful attention to and control of earthmoving and landscaping; and 5) careful attention to design and appearance of structures and equipment. There are no designated State scenic highways within the City of San Carlos, however I-280 immediately west of the city is a designated Scenic Highway from the San Mateo–Santa Clara county line to the San Bruno city limits. The next nearest Scenic Highway is State Route 92, between I-280 (approximately two miles northwest of the City boundary) and State Route 1 in Half Moon Bay and is not near the city. .

<u>Title 24: Building Energy Efficiency Standards</u>

In 2001, the California Legislature passed a bill requiring the California Energy Commission (CEC) to adopt energy efficient standards for outdoor lighting for both the public and private sector. In November 2003, the CEC adopted changes to the Building Energy Efficient Standards

within Title 24. These standards became effective on October 1, 2005, and specify outdoor lighting requirements for residential and nonresidential development. The intent of the new standards is to improve the quality of outdoor lighting and help reduce the impacts of light pollution, light trespass, and glare. The standards regulate lighting characteristics, such as maximum power and brightness, shielding, and sensor controls to turn lighting on and off. Different lighting standards are set by classifying areas by lighting zone. The classification is based on population figures in the 2003 Census and the areas can be designated as LZ1 (dark), LZ2 (low), LZ3 (medium), or LZ4 (high). Lighting requirements for dark and rural areas are stricter in order to protect the areas from new sources of light pollution and light trespass. According to the U.S. Census Bureau, the entire plan area is defined as an urban area and is therefore designated as LZ3 per the CEC classification standards.

### Regional and Local

San Francisco Bay Plan

The San Francisco Bay Plan (Bay Plan) is a policy tool that allows the San Francisco Bay Conservation and Development District (BCDC) to "exercise its authority to issue or deny permit applications for placing fill, extracting materials, or changing the use of any land, water, or structures within the area of its jurisdiction," which includes the San Francisco Bay and lands within 100 feet of its shoreline (BCDC 2020). The City of San Carlos has a small section of Bay front development near the San Carlos Airport and Pico Boulevard that would be subject to BCDC policies.

The Bay Plan serves as the guide for BCDC and includes policies applicable to visual and aesthetic resources within the City. The Bay Plan recommends that urban development be clustered, so as to maximize views of the San Francisco Bay and to conserve natural landscape features and maximize shoreline access.

The Appearance, Design and Scenic Views Chapter of the Bay Plan contain several policies pertaining to visual quality and aesthetic character, including:

> *Policy 1* - To enhance the visual quality of development around the Bay and to take maximum advantage of the attractive setting it provides, the shore of the Bay should be developed in accordance with the Public Access Design Guidelines.
>
> *Policy 2* - All Bayfront development should be designed to enhance the pleasure of the user or viewer of the Bay. Maximum efforts should be made to provide, enhance, or preserve views of the Bay and shoreline, especially from public areas, from the Bay itself, and from the opposite shore. To this end, planning of waterfront development should include participation by professionals who are knowledgeable of the Commissions' concerns, such as landscape architects, urban designers, or architects, working in conjunction with engineers and professionals in other fields.

*Policy 4* - Structures and facilities that do not take advantage of or visually complement the Bay should be located and designed so as not to impact visually on the Bay and shoreline.

*Policy 8* - Shoreline developments should be built in clusters, leaving open area around them to permit more frequent views of the Bay. Developments along the shores of tributary waters should be Bay-related and should be designed to preserve and enhance views along the waterway, so as to provide maximum visual contact with the Bay.

*Policy 9* - "Unnatural" debris should be removed from sloughs, marshes, and mudflats that are retained as part of the ecological system. Sloughs, marshes, and mudflats should be restored to their former natural state if they have been despoiled by human activities.

*Policy 14* - Views of the Bay from vista points and from roads should be maintained by appropriate arrangements of heights of all development and landscaping between the view areas and the water. In this regard, particular attention should be given to all waterfront locations, areas below vista points, and areas along roads that provide good views of the Bay for travelers, particularly areas below roads coming over ridges and providing a "first view" of the Bay.

<u>San Francisco Bay Trail Plan</u>

The San Francisco Bay Trail Plan, adopted in 1989 by the Association of Bay Area Governments (ABAG), proposes the development of a regional hiking and bicycling trail around the perimeter of San Francisco and San Pablo bays. A segment of the planned Redwood Shores trail segment would be within the city's jurisdiction by the San Carlos airport. The Bay Trail Plan includes several visual policies that call for the creation and/or preservation of views along the San Francisco Bay and the recognition of exceptional landscapes.

<u>San Mateo County General Plan</u>

Within the project area, several unincorporated San Mateo County neighborhoods (Devonshire Area, which includes two non-adjacent areas: Devonshire Canyon (a County island) and a nearby 17-acre area adjacent to Club Drive, Cranfield Avenue, and the City of Belmont, Palomar Park, a neighborhood south of the San Carlos city limit, and Pulgas Ridge (formally known as the Hassler Area), consisting of Pulgas Ridge Open Space Preserve and several San Mateo County institutional facilities1) are under the jurisdiction of San Mateo County but are within the City's SOI. Development in these areas is subject to the San Mateo County General Plan, which includes a Visual Quality element and a Conservation and Open Space element that set forth goals and policies relevant to the visual quality of the plan area. In particular, the County General Plan includes a Design Review Overlay district, which imposes more stringent design and development standards for new construction and remodels.

City of San Carlos General Plan

The following text from the City of San Carlos General Plan, Land Use Element pertains to views within the City:

> "San Carlos has varied topography which ranges from land at sea level to the hilly western portion of the city with elevations up to 900 feet. The hillsides and ridgelines that comprise the city's diverse landscape provide a rich array of scenic resources and afford numerous vantage points from which scenic vistas can be enjoyed.
>
> Views of the surrounding open space and San Francisco Bay can be accessed in many areas west of Alameda de las Pulgas, including City parks and open space and existing residential neighborhoods."

The Land Use and Environmental Management Elements in the City's General Plan contain goals and policies to protect visual resources relevant to the proposed project. Relevant goals and policies include:

*Goal LU-8* - Ensure excellence in all development design.

*Policy LU-8.1* - Require all development to feature high quality design that enhances the visual character of San Carlos.

*Policy LU-8.2* - Ensure that new development is sensitive to the character of adjacent structures and the immediate neighborhood.

*Policy LU-8.3* - Encourage design features and amenities in new development and redevelopment, including, but not limited to:

- Interconnected street layout
- Clustering of buildings
- Landscaping on each lot
- Visual buffers
- Facilitation of pedestrian activity
- Distinctiveness and variety in architectural design

*Policy LU-8.15* - Require the undergrounding of all utilities, or a deferred improvement agreement, in conjunction with new construction and encourage the undergrounding of existing utilities where feasible.

*Policy LU-8.17* - Require telecommunications and utility facilities to be sensitively placed, shielded, screened or lessened from view to the greatest extent possible through design review.

*Goal LU-9* - Protect and enhance all residential neighborhoods.

*Policy LU-9.9* - Encourage the design of development to minimize the obstruction of significant views of the San Francisco Bay, the western hills, or other significant natural vistas to the greatest extent possible.

*Policy LU-9.12* - Ensure that development in residential areas is compatible with neighborhood character.

*Goal LU-10* - Minimize the impacts of development in hillside areas.

*Policy LU-10.2* - Require development in hillside areas to be designed into the natural features of the hillside including topography, trees, vegetation, landforms and drainage channels.

*Policy LU-10.4* - Design and locate roads, utilities and other infrastructure to reasonably minimize impacts on the hillside environment. Design should respect the natural topography, produce the least visual impact and require the least grading while remaining consistent with public health and safety standards.

*Policy LU-10.5* - Minimize grading and removal of earth material in hillside areas to the greatest extent possible.

*Policy EM-1.4* - Protect and preserve the circadian cycle (the cycle of night and day) by limiting sources of light during nighttime hours.

*Goal CSH-8* - To develop a system of scenic highways and roads that reflects the aesthetic and visual qualities of the existing and developing San Carlos landscape and the surrounding region.

*Policy CSH-8.1* - The City shall continue its program of protecting and enhancing local scenic roads through right-of-way protection and appropriate architectural and landscape controls and requirements.

*Policy CSH-8.4* - The City shall continue architectural and site plan review of all signage, structures and site developments proposed in the scenic corridors to ensure appropriateness of design and materials and proper placement of structures and vegetative screening where necessary.

CEQA does not establish the definition of a scenic vista. Communities can define and identify scenic vistas in a general plan or afford protection to scenic vistas through other land use planning documents. The San Carlos General Plan does not discuss or identify any officially designated scenic vistas within the City, but refers to “significant views of the San Francisco Bay, the western hills, or other significant natural vistas,” without specifically defining a “significant view.” For the purposes of this CEQA document, the City has defined a scenic vista as a highly valued landscape that the public can view from public vantage points; a viewpoint that is accessible only from private property is not considered a scenic vista.

City of San Carlos Municipal Code

City of San Carlos Municipal Code Chapter 18.29 specifies the City's design review process. Chapter 18.29.060 specifies that to obtain design review approval, projects must satisfy these criteria to the extent they apply:

A. The overall design of the project including its scale, massing, site plan, exterior design, and landscaping will enhance the appearance and features of the project site and surrounding natural and built environment.

B. The project design is appropriate to the function of the project and will provide an attractive and comfortable environment for occupants, visitors, and the general community.

C. Project details, materials, signage, and landscaping are internally consistent, fully integrated with one another, and used in a manner that is visually consistent with the proposed architectural design.

D. The project has been designed to be compatible with neighboring development by avoiding big differences in building scale and character between developments on adjoining lots in the same zoning district and providing a harmonious transition in scale and character between different districts.

E. The project contributes to the creation of an attractive and visually interesting built environment that includes a variety of building styles and designs with well-articulated structures that present varied building facades, roof lines, and building heights within a unifying context that encourages increased pedestrian activity and promotes compatibility among neighboring land uses within the same or different districts.

F. The design of streetscapes, including street trees, lighting, and pedestrian furniture, is consistent with the character of activity centers, commercial districts and nearby residential neighborhoods.

G. The proposed design is compatible with the historical or visual character of any area recognized by the City as having such unified character.

H. The project design preserves major public views and vistas from major public streets and open spaces and enhances them by providing areas to stroll, benches to rest and enjoy views, and similar amenities.

I. Parking areas are designed and developed to buffer surrounding land uses; complement pedestrian-oriented development; enhance the environmental quality of the site, including minimizing stormwater run-off and the heat-island effect; and achieve a safe, efficient, and harmonious development.

J. Lighting and lighting fixtures are designed to complement buildings, be of appropriate scale, provide adequate light over walkways and parking areas to create a sense of pedestrian safety, and avoid creating glare.

K. The proposed building design and landscaping supports public safety and security by allowing for surveillance of the street by people inside buildings and elsewhere on the site.

L. Landscaping is designed to be compatible with and enhance the architectural character and features of the buildings on site and help relate the building to the surrounding landscape. Proposed planting materials avoid conflicts with views, lighting, infrastructure, utilities, and signage.

### 4.1.3 Thresholds of Significance

The project would have a significant impact to visual and design factors if it would:

A. Substantially degrade the existing visual character or quality of the site and its surroundings.

B. Have a substantial adverse effect on a scenic vista.

C. Substantially degrade the view from a scenic highway, including, but not limited to, trees, rock outcroppings and historic buildings.

D. Expose people to substantial light or glare, which would adversely affect day or nighttime views in the area.

Note: Future development projects located within designated Transit Priority Areas would not need to evaluate aesthetics for purposes of CEQA impacts (Public Resources Code Section 21099 (d)(1)), although they would remain subject to the City's standard architectural review requirements as specified in the City of San Carlos Municipal Code Chapter 18.29.060, listed above.

### 4.1.4 Impacts and Mitigation Measures

This section describes potential impacts related to aesthetics which could result from the implementation of the proposed Focused GPU and mitigation measures that would reduce significant impacts. Unless otherwise noted, impact discussions apply to both the Housing Element and Environmental Safety and Public Services Element aspects of the project.

***Impact AES-1 – The project would not have a substantial adverse effect on a scenic vista. (Less Than Significant Impact)***

The San Carlos hills to the west of the Downtown area are part of a developed hillside setting that is visible from the lower elevations in San Carlos and along the El Camino Real and US 101, as well as from neighboring cities (Redwood City, Belmont). Although the area is developed, the San Carlos hills still comprise a visually pleasing backdrop to broad community views because of the

varying topography and mature vegetation and development that is visible from a distance. The General Plan Land Use Element states that the hillsides and ridgelines afford numerous vantage points from which scenic vistas can be enjoyed.

### Goals, Policies and Actions

Provided below are the applicable goals, policies and actions from the proposed new Housing and Land Use Element updates related to aesthetic quality of new and redevelopment projects in the City.

### Housing Element

*Goal HOU-1* - Preservation And Improvement of the Quality Of Existing Housing And Neighborhoods.

> *Policy HOU-1.1: Established Residential Neighborhoods* - Preserve and improve the existing character and livability of established residential neighborhoods through neighborhood improvements and rehabilitation programs.

*Goal HOU-2* - High Quality, Higher-Density, Multi-Family Housing Located Close to Transit, in Downtown, and Along San Carlos Avenue and El Camino Real

> *Policy HOU-2.1* - Design Quality. Promote well-designed multi-family housing and mixed-use projects in the Downtown area and along San Carlos Avenue and El Camino Real.

### Land Use Element

*Goal LU-1* - Ensure a sustainable land use pattern.

> *Policy LU-1.10* - Require that development within the Pulgas, Brittan and Cordilleras Creek watersheds shall preserve watershed integrity, including natural vegetation, soil and slope stability, water quality, scenic values and potential archaeological resources.
>
> *Policy LU-1.11* - Preserve existing open space by supporting urban infill.
>
> *Policy LU-1.12* - Promote the development of publicly accessible urban trails throughout the city to provide access to the natural environment and facilitate non- motorized transportation options.
>
> *Action LU-1.5* - Consider adoption of a lighting ordinance that restricts the type, intensity and placement of outdoor lighting fixtures in development. New lighting should illuminate properties appropriately and help keep them safe and se- cure, but shall not cause glare or spillover into surrounding properties or negatively affect the night sky.

*Goal LU-8* - Ensure excellence in all development design.

*Policy LU-8.1* - Require all development to feature high quality design that enhances the visual character of San Carlos.

*Policy LU-8.2* Ensure that new development is sensitively transitions to the character of adjacent structures and the immediate neighborhood.

*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-8.4* - Promote pedestrian-scaled design through site planning, building design, finish details and landscaping for all types of development by requiring height and locational transitions between buildings of varied levels that are sensitive to the interrelationships of surrounding uses and structures, especially residential.

*Policy LU-8.9* - Encourage the design of attractive outdoor pedestrian spaces that encourage impromptu public gathering places with features such as plazas, interior walkways and paseos, ornamental gates, trellises, lighting, trees and landscaping, seating and fountains.

*Policy LU-8.10* - On all sides of buildings, require the incorporation of quality architectural design elements for all building façades and stepping back upper floors in order to reduce bulk and mass and to break up monotonous wall lines.

*Policy LU-8.11* - Discourage abrupt changes in building scale. A gradual transition between low-rise to mid-rise buildings should be achieved by using the low-rise buildings at the edge of the project site. Consider the relationship of buildings to the street, to one another and to adjacent structures and land uses, especially single-family residential.

*Policy LU-8.13* - Require parking areas associated with development to be located and designed to minimize visual impact to the greatest extent feasible. This may include locating parking behind buildings street frontage, below grade, or screening through the use of natural landscaping.

*Policy LU-8.17* - Require telecommunications and utility facilities to be sensitively placed, shielded, screened or lessened from view to the greatest extent possible through design review.

*Policy LU-8.19* - Residential and mixed use structures shall be designed to be compatible with existing structures in the vicinity, avoid minimize obstructing views from adjacent structures or views of community importance, avoid minimize interference with the right or ability to use solar energy and be consistent with the community design principles.

*Goal LU-9* - Protect and enhance all residential neighborhoods.

*Policy LU-9.9* - Encourage the design of development to minimize the obstruction of significant views of the San Francisco Bay, the western hills, or other significant natural vistas to the greatest extent possible.

*Policy LU-9.13* - Require appropriate transitions of building scale, massing and height to adjacent single-family homes.

*Goal LU-10* - Minimize the impacts of development in hillside areas.

*Policy LU-10.2* - Require development in hillside areas to be designed into the natural features of the hillside including topography, trees, vegetation, landforms and drain- age channels.

*Policy LU-10.3* - In hillside areas, encourage houses to be oriented to the natural topography of the site.

*Policy LU-10.4* - Design and locate roads, utilities and other infrastructure to reasonably minimize impacts on the hillside environment. Design should respect the natural topography, produce the least visual impact and require the least grading while remaining consistent with public health and safety standards.

*Action LU-10.1* - Consider the development of Hillside Development Guidelines, including the development of lot size and cross slope standards.

*Goal LU-11* - Provide for attractive and functional gateways.

*Policy LU-11.1* - Require high quality design for buildings at visually significant locations in gateway areas.

*Policy LU-11.2* - Encourage design features, such as landscaping, art and displays in gateway areas that are welcoming, attractive and contribute to a unique sense of place.

*Policy LU-11.3* - Encourage distinctive architectural features, such as tower elements or a plaza at building entry, for buildings located at visually significant locations within gateway areas.

*Policy LU-11.4*- Ensure that building placement, frontage treatments and landscaping enhance the pedestrian experience and increase accessibility within gateway areas.

*Policy LU-11.5* - Limit the visibility of surface parking within gateway areas through land-scaping and architectural treatments such as low decorative walls or trellises.

*Policy LU-11.6* - Discourage the use of sound walls within gateway areas. If sound walls cannot be avoided, ensure that soundwalls are designed to be attractive and well landscaped.

*Policy LU-11.7* - Require roadway improvements in gateway areas that enhance automotive, bicycle and pedestrian circulation.

*Policy LU-11.8* - Place a special emphasis on the preservation of architecturally significant buildings within gateway areas.

*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.

*Policy LU-11.10* - Consider placing street enhancements, such as welcome signage, at major entrances to the city and residential areas.

*Policy LU-11.11* - Ensure that new development or redevelopment on the northwest and southwest corners of Holly Street and Industrial Road complies with the policies set forth in Land Use Goal 5.

*Policy LU-11.12* - Develop welcoming gateway areas that emphasize the unique qualities of San Carlos.

*Policy LU-11.13* - Study and evaluate options for im- proving circulation on Holly Street between Industrial Road and El Camino Real, working with the public, in particular the residents of Holly Street.

*Action LU-11.1* - Develop design guidelines for development and improvements within gateway areas to enhance community character. These guidelines should promote architectural styles, landscape, street furniture, public art and signage that are in keeping with the aesthetic values of San Carlos.

These various goals and policies demonstrate the City's commitment to preserving visual resources and open space, as well as providing quality urban design in future development. They will encourage future development that contributes to a high quality of life for its residents, employees, and visitors including the protection of visual resources. Although the proposed Focused GPU will over time result in somewhat more intensive and higher density uses, visual impacts, if any, on scenic vistas would be minimal given that these views are already affected by the existing built environment, and the City is already largely built out. Additionally, most of the housing proposed in the Housing Element is located in the flat portions of the city and are not near scenic vistas. Therefore, potential Focused GPU impacts with respect to scenic vistas would be less than significant.

***Impact AES-2 – The project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. (Less Than Significant Impact)***

The General Plan Land Use Element describes scenic resources in the City as being provided by hillsides and ridgelines that comprise the City's diverse landscape. The San Carlos hills, which are located throughout the western portion of the City, could therefore be considered a scenic resource. The San Carlos hills are visible from other parts of the City, although the views are partially obstructed by intervening buildings and structures in the more developed parts of the City. From the El Camino Real corridor, westward views to the hills are least obstructed along major east-west thoroughfares such as Brittan Avenue, San Carlos Avenue, and Holly Street. Conformance with the Land Use policies listed under Goals LU-1 and LU-10, above, would ensure that future development resulting from implementation of the proposed Focused GPU would preserve sustainable land use patterns in the City, and minimize impacts of development in hillside areas. This would result in a less than significant impact related to aesthetics and visual impacts.

There are no designated state scenic highways within the City limits or in the immediate vicinity of the City that could be impacted by the project, therefore there would be no impact. Conformance with the Land Use goals and policies listed above relating to gateways would result in improvement and enhancement of gateway areas throughout the City with the new development allowed under the proposed Focused GPU, thereby making the impact to gateways of the new development less than significant.

***Impact AES-3 – Public views are those that are experienced from publicly accessible vantage point. The project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality. (Less Than Significant Impact)***

As stated in Section 4.1.2 Regulatory Setting above, the San Carlos General Plan contains goals and policies to protect aesthetics and visual resources. Additional protection is provided by the City of San Carlos Municipal Code Chapter 18.29, which contains specific criteria of the City's design review process to ensure that new and modified uses and development will be compatible with the existing and potential development of the surrounding area.

The design review process is intended to regulate the design of new buildings in order to ensure that new development supports the General Plan goals of creating a vibrant pedestrian- and transit-oriented core and distinctive neighborhoods and districts with a diversity of building types that provide continuity in scale and character with appropriate transitions, where needed. Specific design review criteria are currently provided in the Zoning Code (Municipal Code Chapter 18.29.060). However, the project will revise Land Use Element Actions LU-8.5 and LU-9.2 of the General Plan to specifically include objective design standards and transitional design standards for multi-family residential buildings and commercial uses adjacent to single-family homes among the proposed Zoning Ordinance Amendments. As such, the proposed GPU would not result in

significant impacts that would degrade the existing visual character or quality of the area and its surroundings.

ACTION LU-8.5: Develop objective design standards consistent with State law and amend Amend the Zoning Ordinance and Planning Department application submittal checklist to require information and materials that accurately and sufficiently demonstrate a project's compliance with architectural façade and design policies new objective design standards

ACTION LU-9.2: Amend the Zoning Ordinance to include objective design standards, transitional design standards for multi-family residential buildings and commercial uses adjacent to single-family homes, as appropriate. Standards may include height limitations, increased setbacks, landscaping requirements and density limitations.

In addition, the project includes two revised polices in the Land Use Element pertaining to views and building height for new development (adopted/original general plan text shown with proposed new text in <u>underline</u> and removed text as ~~strikeout~~):

- Policy LU-8.2 Ensure that new development ~~is sensitive~~ <u>sensitively transitions</u> to the character of adjacent structures and the immediate neighborhood.

- Policy LU-8.19 Residential <u>and mixed use structures</u> shall be designed to be compatible with existing structures in the vicinity, ~~avoid~~ <u>minimize</u> obstructing views from adjacent structures or views of community importance, ~~avoid~~ <u>minimize</u> interference with the right or ability to use solar energy and be consistent with the community design principles.

Conformance with the new Land Use Element policies would ensure that new development under the proposed Focused GPU would not adversely affect views, and would address compatibility with existing structures. This would be a less than significant impact.

Buildout of the General Plan Update is anticipated to occur over a period of approximately 20 years, although the housing and safety elements must be updated every eight years. Temporary impacts to the visual character and quality of the area could occur during construction activities, although they would be limited and temporary in nature. Typical construction activities would include site preparation, grading, installation of public and private utilities, building construction, application of architectural coatings, paving of surface parking areas, public improvements, and installation of landscaping, and roadway improvements. Construction equipment including, but not limited to, backhoes, excavators, graders, rubber-tired dozers, crushing machines for concrete and asphalt, and hauling trucks and materials may be present during construction activities. During future construction activities, project sites within the project area, which is primarily urban in nature, would undergo temporary transformations in visual character. For example, at the onset of construction, structures and asphalt parking lots would be demolished and sites would be graded. During future construction, vacant graded sites could represent a temporary negative visual effect to adjacent property owners and passers-by, as could the constructed building foundations and framing elements of building. This characterization would also be temporary until building construction, paving, site improvements and landscaping are completed. Visual changes to project

sites within the project area would be experienced temporarily and project sites would progressively transition from active construction zones to finished development. Due to the temporary nature of construction, the visual changes anticipated during construction of future projects within the project area would not be permanent and would not substantially degrade its visual character or the visual character of surrounding areas. Therefore, construction impacts on visual character would be less than significant.

### Zoning Ordinance Amendments

The project includes rezoning of certain areas to allow for fulfilment of the City's RHNA by increasing the density in certain zoning designations. The possible Zoning Ordinance amendments are anticipated to include single-family residential, multi-family residential, and mixed-use land use categories, which would provide for development of some lower level commercial/retail, office, and potentially live/work uses. The Land Use Element (including the Land Use Map) would be updated to ensure consistency between the General Plan and Zoning Ordinance as required by State law.

The Zoning revisions retain transitional setbacks between multi-family residential zones and/or mixed-use designations and the adjacent single-family residential designation. Existing zoning allows a maximum height of four stories while proposed zoning will allow the highest density zones (up to 120 units/acre) a maximum height of six stories (see Table 4.4-5 in the Housing Element in Appendix B) with additional height restrictions in certain areas and sites within 50 feet of an Residential, Single-Family (RS) district. Future development projects resulting from the project would comply with the General Plan policies listed under the Land Use Element discussion above. Conformance with Policy LU-8.2, which seeks to ensure that new development sensitively transitions to the character of adjacent structures and the immediate neighborhood, would ensure that new development projects respect the scale and character of adjacent residential uses to promote neighborhood compatibility. Existing non-residential building heights along El Camino Real are typically two stories, with an occasional single-story building or three-story residential building. Heights of existing non-residential buildings adjacent to existing single-family neighborhoods east of El Camino Real are typically two-stories. In addition to density increases, the City may also revise required development standards for residential and mixed-use zoning districts such as setbacks, FAR, parking, landscaping, public open space, and other development related requirements. All of the proposed revisions would be consistent with General Plan goals and policies intended to protect scenic quality by providing for more open space and limiting obstruction of views resulting from new and redeveloped housing sites in the City. The impacts from proposed Zoning Ordinance amendments would therefore be less than significant.

#### *Impact AES-4 – The project would not result in new sources of substantial light or glare which would adversely affect day or nighttime views in the area. (Less Than Significant Impact)*

The project would result in the intensification of residential densities and FARs on properties in the City's core – primarily along the El Camino Real corridor and in the Downtown area. This would likely increase the amount of light and glare in this area.

Existing lighting within the project area is typical for urbanized areas during nighttime hours and includes streetlights, traffic signals, security lighting around businesses and homes, auto headlights and illuminated business signs.

### Goals, Policies and Actions

Provided below are the applicable goals, policies and actions from the proposed Land Use Element update related to lighting that would be applicable to future development in the City.

*Goal LU-1.* - Ensure a sustainable land use pattern.

> *Action LU-1.5* - Consider adoption of a lighting ordinance that restricts the type, intensity and placement of outdoor lighting fixtures in development. New lighting should illuminate properties appropriately and help keep them safe and secure, but shall not cause glare or spillover into surrounding properties or negatively affect the night sky.

*Goal LU-8* - Ensure excellence in all development design.

> *Policy LU-8.9* - Encourage the design of attractive outdoor pedestrian spaces that encourage impromptu public gathering places with features such as plazas, interior walkways and paseos, ornamental gates, trellises, lighting, trees and landscaping, seating and fountains.

New uses and developments may result in an increase in the number of lighting sources currently within the project area; however, given that it is already developed, such increases are expected to be minimal in nature. Conformance with the above-listed goals, policies and actions would ensure that future development allowed under the proposed Focused GPU would follow good design and not negatively impact surrounding properties or negatively affect the night sky.

## 4.1.5 References

BCDC. 2020. San Francisco Bay Plan. Accessed August 15, 2022 at https://bcdc.ca.gov/plans/sfbay_plan.html#1.

City of San Carlos. San Carlos 2030 General Plan. October 12, 2009.

# 4.2 AIR QUALITY

This EIR chapter provides information on the environmental and regulatory air quality setting of the project area and evaluates the potential regulated air pollutant emissions that could be generated by the proposed project due to new developments as through proposed changes to the Housing Element. The proposed Environmental Safety and Public Services Element and all other project components not mentioned in this analysis will not have an appreciable effect on air quality. Information on existing air quality conditions, federal, and State ambient air quality standards, and pollutants of concern was obtained from the U.S. Environmental Protection Agency (U.S. EPA), California Air Resources Board (CARB), and BAAQMD. This EIR air quality analysis has been closely coordinated with the energy and greenhouse gas analyses contained in Chapters 4.6 and 4.8 of this EIR. Please refer to Appendix C for detailed air quality and greenhouse gas emissions estimates (MD 2022).

## 4.2.1 Environmental Setting

Air quality is a function of pollutant emissions and topographic and meteorological influences. The physical features and atmospheric conditions of a landscape interact to affect the movement and dispersion of pollutants and determine its air quality.

### Bay Area Basin

The project area is located within the western portion of the San Francisco Bay Area Air Basin (Bay Area Basin), which includes the counties of San Francisco, Santa Clara, San Mateo, Marin, Napa, Contra Costa County, and Alameda, along with the southeast portion of Sonoma County and the southwest portion of Solano County. The local air quality regulatory agency responsible for this basin is the Bay Area Air Quality Management District (BAAQMD).

The climate of the project area is characterized by warm, dry summers and cool, moist winters. The proximity of the San Francisco Bay and Pacific Ocean has a moderating influence on the climate. Air is often condensed into fog or stratus clouds by the cool Pacific Ocean. This condition is typical of the warmer months of the year from roughly May through October. When a strong high pressure develops over the region in late spring and summer, the resulting warm conditions and a weak or non-existent marine inversion create clear skies and relatively dry atmospheric conditions.

In the winter, high pressure over the eastern Pacific weakens and generally shifts south, allowing transitional weather systems associated with the polar jet stream to affect northern California on a regular basis. Low pressure systems produce periods of cloudiness, strong shifting winds, and precipitation. The project area receives about 15 to 20 inches of precipitation annually, with about 90 percent of this rainfall falling from November through April. Fog and haze are also common in the project area during winter, when high-pressure systems influence the weather.

During the fall and winter months, the high pressure condition over the interior regions of the western United States (known as the Great Basin High) can produce extended periods of light winds and low-level temperature inversions. This condition is frequently characterized by poor atmospheric mixing resulting in degraded regional air quality. Ozone ($O_3$) pollution typically occurs when this condition occurs during the warmer months of the year.

## Regulated Air Pollutants

The United States Environmental Protection Agency (U.S. EPA) has established National Ambient Air Quality Standards (NAAQS) for six common air pollutants: ozone ($O_3$), particulate matter (PM), which consists of "inhalable coarse" PM (particles with an aerodynamic diameter between 2.5 and 10 microns in diameter, or $PM_{10}$) and "fine" PM (particles with an aerodynamic diameter smaller than 2.5 microns, or $PM_{2.5}$), carbon monoxide (CO), nitrogen dioxide ($NO_2$), sulfur dioxide ($SO_2$), and lead. The U.S. EPA refers to these six common pollutants as "criteria" pollutants because the agency regulates the pollutants on the basis of human health and/or environmentally-based criteria and because they are known to cause adverse human health effects and/or adverse effects on the environment (U.S. EPA 2020a and 2020b).

The California Air Resource Board (CARB) has established California Ambient Air Quality Standards (CAAQS) for the six criteria air pollutants regulated by the federal Clean Air Act (the CAAQS are more stringent than the NAAQS), plus the following additional air pollutants due to their known adverse effects on human health or the environment (CARB 2020a): hydrogen sulfide ($H_2S$), sulfates ($SO_X$), vinyl chloride, and visibility reducing particles.

A description of the air pollutants associated with the project area and its vicinity is provided below. Air pollutants not commonly associated with the existing or proposed sources in the project area, such as hydrogen sulfide and visibility reducing particles, are not described below.

- **Ground-level Ozone**, commonly referred to as smog, is not emitted directly into the atmosphere. It is created from chemical reactions between $NO_X$ and volatile organic compounds (VOCs), also called reactive organic gases (ROG), in the presence of sunlight (U.S. EPA 2017a). Thus, ozone formation is typically highest on hot sunny days in urban areas with $NO_X$ and ROG pollution. Ozone irritates the nose, throat, and air pathways and can cause or aggravate shortness of breath, coughing, asthma attacks, and lung diseases such as emphysema and bronchitis.
    - **ROG** is a CARB term defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and includes several low-reactive organic compounds which have been exempted by the U.S. EPA (CARB 2004).
    - **VOCs** is a U.S. EPA term defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. The

term exempts organic compounds of carbon which have been determined to have negligible photochemical reactivity such as: methane, ethane, and methylene chloride (CARB 2004).

- **Particulate Matter**, also known as particle pollution, is a mixture of extremely small solid and liquid particles made up of a variety of components such as organic chemicals, metals, and soil and dust particles (U.S. EPA 2016a).
    - **$PM_{10}$**, also known as inhalable coarse, respirable, or suspended PM, consists of particles less than or equal to 10 micrometers in diameter (approximately 1/7$^{th}$ the thickness of a human hair). These particles can be inhaled deep into the lungs and possibly enter the blood stream, causing health effects that include, but are not limited to, increased respiratory symptoms (e.g., irritation, coughing), decreased lung capacity, aggravated asthma, irregular heartbeats, heart attacks, and premature death in people with heart or lung disease (U.S. EPA 2016a).
    - **$PM_{2.5}$**, also known as fine PM, consists of particles less than or equal to 2.5 micrometers in diameter (approximately 1/30$^{th}$ the thickness of a human hair). These particles pose an increased risk because they can penetrate the deepest parts of the lung, leading to and exacerbating heart and lung health effects (U.S. EPA 2016a).
- **Carbon Monoxide (CO)** is an odorless, colorless gas that is formed by the incomplete combustion of fuels. Motor vehicles are the single largest source of carbon monoxide in the Bay Area Basin. At high concentrations, CO reduces the oxygen-carrying capacity of the blood and can aggravate cardiovascular disease and cause headaches, dizziness, unconsciousness, and even death (U.S. EPA 2016b).
- **Nitrogen Dioxide ($NO_2$)** is a by-product of combustion. $NO_2$ is not directly emitted, but is formed through a reaction between nitric oxide (NO) and atmospheric oxygen. NO and $NO_2$ are collectively referred to as $NO_X$ and are major contributors to ozone formation. $NO_2$ also contributes to the formation of particulate matter. $NO_2$ can cause breathing difficulties at high concentrations (U.S. EPA 2016c).
- **Sulfur Dioxide ($SO_2$)** is one of a group of highly reactive gases known as $SO_X$. Fossil fuel combustion in power plants and industrial facilities are the largest emitters of $SO_2$. Short-term effects of $SO_2$ exposure can include adverse respiratory effects such as asthma symptoms. $SO_2$ and other $SO_X$ can react to form PM (U.S. EPA 2016d).
- **Sulfates ($SO_4^{2-}$)** are the fully oxidized ionic form of sulfur. $SO_4^{2-}$ are primarily produced from fuel combustion. Sulfur compounds in the fuel are oxidized to $SO_2$ during the combustion process and subsequently converted to sulfate compounds in the atmosphere. Sulfate exposure can increase risks of respiratory disease (CARB 2022).

- **Lead** is a metal found naturally in the environment as well as in manufactured products. Mobile sources used to be the main contributor to ambient lead concentrations in the air. In the early 1970s, the U.S. EPA established national regulations to gradually reduce the lead content in gasoline, and in 1996, lead was banned from gasoline. As a result of these efforts, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically. Lead can adversely affect multiple organ systems of the body and people of every age group. Lead poisoning in young children can cause brain damage, behavioral problems, and liver or kidney damage. Lead poisoning to adults can cause reproductive problems, muscle and joint pain, nerve disorders and kidney disease (CARB 2016a).

Common criteria air pollutants, such as ozone precursors, $SO_2$, and PM, are emitted by a large number of sources and have effects on a regional basis (i.e., throughout the Bay Area Basin). Other pollutants, such as hazardous air pollutants (HAPs; described in more detail below under "Toxic Air Contaminants"), toxic air contaminants (TACs; described in more detail below), and fugitive dust, are generally not as prevalent and/or emitted by fewer and more specific sources. As such, these pollutants have much greater effects on local air quality conditions and local receptors.

### Ambient Air Quality Standards and Basin Attainment Status

In general, the NAAQS and CAAQS define "clean" air, and are established at levels designed to protect the health of the most sensitive groups in our communities by defining the maximum amount of a pollutant (averaged over a specified period of time) that can be present in outdoor air without any harmful effects on people or the environment. Air pollutant levels are typically described in terms of concentration, which refers to the amount of pollutant material per volumetric unit of air. Concentrations are typically measured in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$).

The U.S. EPA, CARB, and regional air agencies assess the air quality of an area by measuring and monitoring the amount of pollutants in the ambient air and comparing pollutant levels against NAAQS and CAAQS. Table 4.2-1 (Ambient Air Quality Standards) lists the NAAQS and CAAQS.

**Table 4.2-1: Ambient Air Quality Standards**

| Pollutant | Averaging Time[(A)] | California Standards[(B)] | National Standards[(B)] |
|---|---|---|---|
| Ozone | 1-Hour (1979) | -- | 240 $\mu g/m^3$ |
| | 1-Hour (Current) | 180 $\mu g/m^3$ | -- |
| | 8-Hour (1997) | -- | 160 $\mu g/m^3$ |
| | 8-Hour (2008) | -- | 147 $\mu g/m^3$ |
| | 8-Hour (Current) | 137 $\mu g/m^3$ | 137 $\mu g/m^3$ |
| $PM_{10}$ | 24-Hour | 50 $\mu g/m^3$ | 150 $\mu g/m^3$ |
| | Annual Average | 20 $\mu g/m^3$ | -- |
| $PM_{2.5}$ | 24-Hour | -- | 35 $\mu g/m^3$ |
| | Annual Average (1997) | -- | 15 $\mu g/m^3$ |

| Table 4.2-1: Ambient Air Quality Standards | | | |
|---|---|---|---|
| **Pollutant** | **Averaging Time(A)** | **California Standards(B)** | **National Standards(B)** |
| | Annual Average (Current) | 12 µg/m$^3$ | 12 µg/m$^3$ |
| Carbon Monoxide | 1-Hour | 23,000 µg/m$^3$ | 40,000 µg/m$^3$ |
| | 8-Hour | 10,000 µg/m$^3$ | 10,000 µg/m$^3$ |
| Nitrogen Dioxide | 1-Hour | 339 µg/m$^3$ | 188 µg/m$^3$ |
| | Annual Average | 57 µg/m$^3$ | 100 µg/m$^3$ |
| Sulfur Dioxide | 1-Hour | 655 µg/m$^3$ | 196 µg/m$^3$ |
| | 24-Hour | 105 µg/m$^3$ | 367 µg/m$^3$ |
| | Annual Average | -- | 79 µg/m$^3$ |
| Lead | 3-Months Rolling | -- | 0.15 µg/m$^3$ |
| Hydrogen Sulfide | 1-Hour | 42 µg/m$^3$ | -- |
| Sulfates | 24-Hour | 25 µg/m$^3$ | -- |
| Vinyl Chloride | 24-Hour | 26 µg/m$^3$ | -- |

Source: CARB 2016b

Ambient air standards have changed over time. This table presents information on the standards previously used by the U.S. EPA for which the Bay Area Basin does not meet attainment.

This table summarizes the CAAQS and NAAQS and the Bay Area Basin's attainments status. This table does not present comprehensive information regarding the CAAQS and NAAQS. Each CAAQS and NAAQS has its own averaging time, standard unit of measurement, measurement method, and statistical test for determining if a specific standard has been exceeded. Standards are not presented for visibility reducing particles, which are not concentration-based. The Bay Area Basin is unclassified for visibility reducing particles.

## Toxic Air Contaminants

In addition to criteria air pollutants, the U.S. EPA and CARB have classified certain pollutants as hazardous air pollutants (HAPs) or toxic air contaminants (TACs), respectively. The U.S. EPA has identified 187 HAPs, including substances such as benzene and formaldehyde; CARB also considers particulate emissions from diesel-fueled engines and other substances to be TACs. Since CARB's list of TACs references and includes U.S. EPA's list of HAPs, this EIR uses the term TAC when referring to HAPs and TACs.

TACs can cause severe health effects at very low concentrations (non-cancer effects), and many are suspected or confirmed carcinogens (i.e., can cause cancer) (U.S. EPA 2020b, CARB 2020b). People exposed to TACs at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects such as, but not limited to, reduced immune system, as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and/or other health problems (U.S. EPA 2020b, CARB 2020b).

A description of the TACs within the project area and its vicinity is provided below.

- **Gasoline-Powered Mobile Sources.** According to the BAAQMD's Community Air Risk Evaluation Program (BAAQMD 2014), or CARE, gasoline-powered vehicles emit TACs, such as benzene, which can have adverse health risks. Gasoline-powered sources emit TACs in much smaller amounts than diesel-powered vehicles. The CARE 2014 *Improving Air Quality and Health in Bay Area Communities* report identifies that diesel emissions account for approximately 70% of the total air toxics and cancer risk in the Bay Area Basin, while Benzene, 1,3-Butadiene, and Carbonyls make up approximately 90 percent of the cancer risk.

- **Diesel Particulate Matter (DPM).** Diesel engines emit both gaseous and solid material; the solid material is known as DPM. Almost all DPM is less than 1 µm in diameter, and thus is a subset of $PM_{2.5}$. DPM is typically composed of carbon particles and numerous organic compounds. Diesel exhaust also contains gaseous pollutants including VOCs and $NO_x$. The primary sources of diesel emissions are ships, trains, trucks, rail yards and heavily traveled roadways. These sources are often located near highly populated areas, resulting in greater DPM related health consequences in urban areas. The majority of DPM is small enough to be inhaled into the lungs and what particles are not exhaled can be deposited on the lung surfaces and in the deepest regions of the lungs where they are most susceptible to injury. In 1998, CARB identified DPM as a toxic air contaminant based on evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM also contributes to the same non-cancer health effects as $PM_{2.5}$ exposure (CARB 2016c).

- **PM from Wheel-Rail Interactions**. PM may also be generated from friction between rail and locomotive wheels (wheel-rail interaction). This abrasion process can suspend metals such as iron, chromium, manganese, and copper in the form of PM (CARB 2020b; Loxham et al., 2013); however, the potential for PM to be generated is dependent on the weight of the train and the conditions of the wheels and track on which the train rides. The Caltrain is a commuter rail that consists of a traditional diesel locomotive commuter rail system; the rail line is also shared by freight trains. Thus, while the Caltrain may generate PM from wheel-rail interaction, this contribution is anticipated be minimal (i.e., would not have an appreciable effect on mass emission or health risk estimates) and this issue is not discussed further in this EIR.

- **Toxic elements and pollutants** such as butadiene, benzene, perchloroethylene, formaldehyde, acetaldehyde, arsenic, cadmium, and lead are found in the Bay Area Basin (BAAQMD 2017). Many toxins such as benzene, butadiene, and lead, are associated with refinery operations such as those that exist in the Bay Area Basin.

## Local Air Quality Conditions

The BAAQMD monitors air quality within the Bay Area Basin. Existing levels of ambient air quality and historical trends within the project area are best documented by measurements taken by the BAAQMD. Air quality monitoring stations usually measure pollutant concentrations at varying heights above ground level depending on the monitoring site and the pollutants being monitored. Therefore, air quality is often referred to in terms of ground-level concentrations. Air quality data for $O_3$, $NO_2$, CO, $PM_{10}$, and $PM_{2.5}$ from Redwood City, the closest city with available data, are provided in Table 4.2-2 (Local Air Quality Conditions (2017-2019)).

**Table 4.2-2: Local Air Quality Conditions 2017-2019**

| Pollutant | Ambient Air Standard | Year(A) | | |
|---|---|---|---|---|
| | | 2017 | 2018 | 2019 |
| **Ozone ($O_3$)** | | | | |
| Maximum 1-hr Concentration (ppm) | | 0.115 | 0.067 | 0.083 |
| Maximum 8-hr Concentration (ppm) | | 0.086 | 0.049 | 0.077 |
| Number of Days Exceeding State 1-hr Standard | >180 µg/m3 | 2 | 0 | 0 |
| Number of Days Exceeding State 8-hr Standard | >137 µg/m3 | 2 | 0 | 2 |
| Days Exceeding Federal 1-hr Standard | >0.124 ppm | 2 | 0 | 0 |
| Days Exceeding Federal 8-hr Standard | >0.070 ppm | 2 | 0 | 2 |
| **Carbon Monoxide (CO)** | | | | |
| Maximum 1-hr Concentration (ppm) | | 2.8 | 2.5 | 2.0 |
| Maximum 8-hr Concentration (ppm) | | 1.4 | 1.7 | 1.1 |
| Days Exceeding State 1-hr Standard | >23,000 µg/m$^3$ | 0 | 0 | 0 |
| Days Exceeding Federal/State 8-hr Standard | >10,000 µg/m$^3$ | 0 | 0 | 0 |
| Days Exceeding Federal 1-hr Standard | >40,000 µg/m$^3$ | 0 | 0 | 0 |
| **Nitrogen Dioxide ($NO_2$)** | | | | |
| Maximum 1-hr Concentration (ppb) | | 67 | 77 | 55 |
| Annual Arithmetic Mean Concentration (ppb) | | 11 | 11 | 9 |
| Days Exceeding State 1-hr Standard | >180 µg/m$^3$ | 0 | 0 | 0 |
| **Coarse Particulate Matter ($PM_{10}$) *** | | | | |
| Maximum 24-hr Concentration (µg/m$^3$) | | -- | -- | -- |
| Annual Arithmetic Mean (µg/m$^3$) | | -- | -- | -- |
| Samples Exceeding State 24-hr Standard | >50 µg/m$^3$ | -- | -- | -- |
| Samples Exceeding Federal 24-hr Standard | >150 µg/m$^3$ | -- | -- | -- |
| **Fine Particulate Matter ($PM_{2.5}$)** | | | | |
| Maximum 24-hr Concentration (µg/m$^3$) | | 60.8 | 120.9 | 29.5 |
| Annual Arithmetic Mean (µg/m$^3$) | | 9.1 | 10.3 | 7.0 |
| Samples Exceeding Federal 24-hr Standard | >35 µg/m$^3$ | 6 | 0 | 0 |

Source: BAAQMD Air Quality Summary Reports
"--" indicates data are not available.
* There is no PM10 data for Redwood City.

## Sensitive Receptors

Some people are more affected by air pollution than others. Sensitive air quality receptors include specific subsets of the general population that are susceptible to poor air quality and the potential adverse health effects associated with poor air quality. Both CARB and the BAAQMD consider residences, schools, parks and playgrounds, childcare centers, athletic facilities, long-term health

care facilities, rehabilitation centers, convalescent centers, and retirement homes to be sensitive air quality land uses and receptors (BAAQMD 2017; CARB, 2005).

The potentially serious detrimental effects caused by even the most common pollutants are of widespread concern. $O_3$, PM, CO and other pollutants pose a very real threat to health and property in the Bay Area Basin. The region's high median age implies that major portions of residents are particularly susceptible to respiratory distress from $O_3$ and $PM_{10}$. In general, the sensitive air quality receptors within the City of San Carlos include, but are not limited to:

- Existing low- and medium-density residential receptors within the City;
- Existing elementary and intermediate schools, and education or institutional facilities;
- Existing medical facilities, such as the San Carlos Center;
- Existing public facilities;
- Existing parks and recreational facilities, including, but not limited to, Arguello Park and Burton Park.

Existing Air Pollution-Related Health Risks

Sensitive air quality receptors are usually most affected by local sources of air pollution. US-101 and State Route 82 run through the middle of the project area and I-280 is immediately to the west. All of these major roadways carry trucks that emit DPM as they operate and cause localized areas of DPM concentrations. Emissions of TACs from stationary sources in the project area can be found in the most recent version of BAAQMD's annual Toxic Contaminant Control Report.[1] The majority of these sources are dry cleaning facilities, which emit perchloroethylene. However, the most prevalent toxic contaminants in the project area and San Mateo County (excluding diesel particulate matter) are benzene and 1,3-Butadiene from mobile sources and formaldehyde that comes from a variety of sources.

CalEnviroScreen is a mapping tool that helps identify California communities that are most affected by many sources of pollution, and where people are often especially vulnerable to pollution's effects. While CalEnviroScreen was originally developed as part of Senate Bill (SB) 535 and used to identify disadvantaged communities for the purposes of allocating funding from the State's Cap-and-Trade regulation, its application and scope have expanded over the years. The tool uses environmental, health, and socioeconomic information to produce scores for every census tract in the state. The CalEnviroScreen model is made up of four components – two pollution burden components (exposures and environmental effects) and two population characteristics components (sensitive populations and socioeconomic factors). The four components are further divided into 20 indicators. An indicator is a measure of either environmental conditions, in the

[1] Toxic Contaminant Control Report, Report available at: https://www.baaqmd.gov/about-air-quality/research-and-data/emission-inventory/toxic-air-contaminants

case of pollution burden indicators, or health and vulnerability factors, in the case of population characteristic indicators.

- **Exposure** indicators are based on the measurements of different types of pollution that people may come into contact with. Exposure indicators include:
  - Air Quality: Ozone
  - Air Quality: $PM_{2.5}$
  - Children's Lead Risk from Housing
  - Diesel Particular Matter
  - Drinking Water Contaminants
  - Pesticide Use
  - Toxic Releases from Facilities
  - Traffic Density
- **Sensitive population** indicators measure the number of people in a community who may be more severely affected by pollution because of their age or health. Sensitive population indicators include:
  - Asthma
  - Cardiovascular Disease
  - Low Birth Weight Infants
- **Environmental effects** indicators are based on the locations of toxic chemicals in or near communities. Environmental effects indicators include:
  - Cleanup Sites
  - Groundwater Threats
  - Hazardous Waste Generators and Facilities
  - Impaired Water Bodies
  - Solid Waste Sites and Facilities

- **Socioeconomic factor** indicators are conditions that may increase people's stress or make healthy living difficult and cause them to be more sensitive to pollution's effects (OEHHA 2017). Socioeconomic factors include:
    - Educational Attainment
    - Housing Burden
    - Linguistic Isolation
    - Poverty
    - Unemployment

Each census tract receives scores for as many of the 20 indicators as possible, and the scores are then mapped so that different communities can be compared. Percentiles are assigned to each census tract based on the census tract's score in relation to the rest of the state. An area with a high percentile is one that experiences a much higher pollution burden than areas with low scores. For example, if a census tract has an indicator in the 40$^{th}$ percentile, it means that indicator's percentile is higher than 40 percent of the census tracts in the state. CalEnviroScreen also provides a total (or cumulative) score, which is the product of multiplying the 10 pollution burden components by the 10 population characteristics. This total / cumulative score helps contextualize how multiple contaminants from multiple sources affect people, while taking into account their living conditions (e.g., nonchemical factors such as socioeconomic and health status). Communities that are within the top 25$^{th}$ percentile for total CalEnviroScreen scores (i.e., scoring in the 75$^{th}$ percentile or higher for the cumulative score) are considered disadvantaged communities (DAC) pursuant to SB 535 (OEHHA 2017).

According to the OEHHA CalEnviroScreen 4.0 Map, the census tracts that are generally located in the central eastern portions of the project area have higher CalEnviroScreen scores than the census tracts located in the western and southern portions of the project area. CalEnvironscreen 4.0. shows no areas within San Carlos as a DAC.

### 4.2.2 Regulatory Framework

#### Federal

<u>Federal Clean Air Act</u>

The Federal Clean Air Act (CAA), as amended, provides the overarching basis for both Federal and State air pollution prevention, control, and regulation. The CAA establishes the U.S. EPA's responsibilities for protecting and improving the nation's air quality. The U.S. EPA oversees Federal programs for setting air quality standards and designating attainment status, permitting new and modified stationary sources of pollutants, controlling emissions of hazardous air pollutants, and reducing emissions from motor vehicles and other mobile sources. In 1971, to

achieve the purposes of Section 109 of the CAA, the U.S. EPA developed primary and secondary NAAQS. Primary standards are designed to protect human health with an adequate margin of safety. Secondary standards are designed to protect property and public welfare from air pollutants in the atmosphere.

### State

California Clean Air Act

In addition to being subject to Federal requirements, air quality in the state is also governed by more stringent regulations under the California Clean Air Act, which was enacted in 1988 to develop plans and strategies for attaining the CAAQS. As discussed above, in California, both the Federal and State Clean Air acts are administered by CARB. CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional level.

In-Use Off-Road Diesel Equipment Program

CARB's In-Use Off-Road Diesel Equipment regulation is intended to reduce emissions of $NO_x$ and PM from off-road diesel vehicles, including construction equipment, operating within California. The regulation imposes limits on idling; requires reporting equipment and engine information and labeling all vehicles reported; restricts adding older vehicles to fleets; and requires fleets to reduce their emissions by retiring, replacing, or repowering older engines or installing exhaust retrofits for PM. The requirements and compliance dates of the off-road regulation vary by fleet size, and large fleets (fleets with more than 5,000 horsepower) must meet average targets or comply with Best Available Control Technology (BACT) requirements beginning in 2014. CARB has off-road anti-idling regulations affecting self-propelled diesel-fueled vehicles of 25 horsepower and up. The off-road anti-idling regulations limit idling on applicable equipment to no more than five minutes, unless exempted due to safety, operation, or maintenance requirements.

On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation

CARB's On-Road Heavy-Duty Diesel Vehicles (In-Use) regulation (also known as the Truck and Bus Regulation) is intended to reduce emission of $NO_X$, PM, and other criteria pollutants generated from existing on-road diesel vehicles operating in California. The regulation applies to nearly all diesel-fueled trucks and buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds that are privately or federally owned, and for privately and publicly owned school buses. Heavier trucks and buses with a GVWR greater than 26,000 pounds must comply with a schedule by engine model year or owners can report to show compliance with more flexible options. Fleets complying with the heavier trucks and buses schedule must install the best available PM filter on 1996 model year and newer engines, and replace the vehicle 8 years later. Trucks with 1995 model year and older engines had to be replaced starting in 2015. Replacements with a 2010 model year or newer engine meet the final requirements, but owners can also replace the equipment with used

trucks that have a future compliance date (as specified in regulation). By 2023, all trucks and buses must have at least 2010 model year engines with few exceptions.

CARB Stationary Diesel Engines – Emission Regulations

In 1998, CARB identified DPM as a TAC. In 2000, to reduce public exposure to DPM, the Board approved the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (Risk Reduction Plan) (CARB 2000). Integral to this plan is the implementation of control measures to reduce DPM such as the control measures for stationary diesel-fueled engines. As such, diesel generators must comply with regulations under CARB's amendments *to Airborne Toxic Control Measure for Stationary Compression Ignition Engines* and be permitted by BAAQMD.

CARB Air Quality and Land Use Handbook

In 1998, CARB identified particulate matter from diesel-fueled engines as a TAC. CARB's Air Quality and Land Use Handbook is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process (CARB 2005). The CARB Handbook recommends that planning agencies consider proximity to air pollution sources when considering new locations for "sensitive" land uses, such as residences, medical facilities, daycare centers, schools, and playgrounds. Air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners, and large gasoline service stations. Key recommendations in the Handbook relative to the project area include taking steps to consider or avoid siting new, sensitive land uses:

- Within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day;
- Within 300 feet of gasoline fueling stations; or
- Within 300 feet of dry-cleaning operations (dry cleaning with TACs is being phased out and will be prohibited in 2023).

CARB prepared a technical supplement to the Handbook, a *Technical Advisory on Strategies to Reduce Air Pollution Exposure Near High Volume Roadways* (CARB 2017), that provides recommendations for strategies to minimize exposure of the public to air pollutants due to proximity to high volume roadways, such as reducing traffic emissions and removing pollution from the air.

Air Toxics "Hot Spots" Program

State requirements specifically address emissions of air toxics through Assembly Bill (AB) 1807 (known as the Tanner Bill) that established the State Air Toxics "Hot Spots" Program and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588) (California Health and

Safety Code Section 44300 et seq.). Under the Air Toxics Hot Spots Information and Assessment Act of 1987 (or Air Toxics "Hot Spots" Act) and Air Toxics Hot Spots Program, the State (CARB) must collect data on toxic emissions from stationary sources (facilities) throughout the State and ascertain potential health risks that these emissions pose to members of community for developing cancer or for resulting in non-cancer health effects. California's Children's Environmental Health Protection Act of 1999 (California Health and Safety Code Section 39606), also requires explicit consideration of infants and children in assessing risks from air toxics.

Substances regulated under California's Air Toxics Hot Spots Program are defined in statute and include a list of substances developed by the following sources:

- International Agency for Research on Cancer (IARC);
- U.S. EPA;
- U.S. National Toxicology Program (NTP);
- CARB Toxic Air Contaminant Identification Program List;
- Hazard Evaluation System and Information Service (HESIS) (State of California);
- Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986) list of carcinogens and reproductive toxicants (State of California); and
- Any additional substance recognized by the State Board as presenting a chronic or acute threat to public health when present in the ambient air.

When locating receptors near large generators of TAC emissions, the BAAQMD recommends conducting CO hot spot analyses and analyzing health risk for these new developments.

**Regional**

<u>Bay Area Air Quality Management District</u>

The BAAQMD is primarily responsible for assuring that the national and state ambient air quality standards are attained and maintained in the Bay Area. BAAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for and inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, conducting public education campaigns, as well as many other activities. BAAQMD has jurisdiction over much of the nine Bay Area counties, including San Mateo County, in which the project area is located. Much of BAAQMD's regulatory authority is the control of stationary air pollution sources.

The BAAQMD develops CEQA guidelines for local jurisdictions to use in evaluating air quality impacts from projects and plans reviewed through the CEQA process. The District has no regulatory authority to enforce this guidance; however, most lead agencies use the guidance to evaluate air quality impacts.

Air Quality Plans

The BAAQMD develops air quality plans addressing the California Clean Air Act and updates them approximately every three years toward meeting the CAAQS.

*Bay Area Clean Air Plan, 1991*

The Bay Area Clean Air Plan was prepared in 1991 to address the more stringent requirements of the California Clean Air Act with respect to $O_3$. This plan includes a comprehensive strategy to reduce emissions from stationary, area, and mobile sources. The plan objective is to indicate how the Bay Area Basin would make progress toward attaining the stricter state air quality standards, as mandated by the California Clean Air Act. The plan was designed to achieve a region-wide reduction of $O_3$ precursor pollutants through the expeditious implementation of all feasible measures. Air quality plans addressing the California Clean Air Act are developed on a triennial basis, with the latest approved update to the plan developed in 2017 (i.e., 2017 Bay Area Ozone Strategy, described below).

*2005 Bay Area Ozone Strategy*

In early 2006, BAAQMD adopted the Bay Area 2005 Ozone Strategy, which includes a comprehensive strategy to reduce ozone precursor emissions from stationary, area, and mobile sources. This plan implements transportation control measures to address the 1- hour NAAQS for $O_3$ and achieve basin-wide reductions in ozone precursor pollutants. The clean air planning efforts for ozone also will reduce $PM_{10}$ and $PM_{2.5}$, as a substantial amount of particulate matter comes from combustion emissions such as vehicle exhaust.

The Bay Area 2005 Ozone Strategy proposes expanded implementation of Transportation Control Measures (TCMs) and programs such as Spare the Air, a public outreach program designed to educate the public about air pollution in the Bay Area and promote individual behavior changes that improve air quality. Some of these measures or programs rely on local governments for implementation.

The BAAQMD is currently in the process of updating this plan, as required by the California Clean Air Act. In addition to implementing all feasible measures to reduce ozone, the plan will consider impacts of ozone control measures on particulate matter, TACs, and greenhouse gases in a single integrated plan.

*2017 Bay Area Clean Air Plan*

In April 2017, the BAAQMD adopted the 2017 Bay Area Clean Air Plan (CAP). This will be the latest update to the 1991 Bay Area Clean Air Plan that is required to include all feasible measures to reduce emissions of ozone precursors. The 2017 Plan provides a regional strategy to protect public health and protect the climate. To protect public health, the plan describes how the Air District will continue our progress toward attaining all state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious greenhouse gas reduction targets for 2030 and 2050 and provides a regional climate protection strategy that will put the Bay Area on a pathway to achieve those GHG reduction targets.

*Regulation 6, Rule 3: Wood Burning Devices*

BAAQMD adopts and enforces rules to reduce particulate matter emissions and develops public outreach programs to educate the public to reduce $PM_{10}$ and $PM_{2.5}$emissions (e.g., Spare the Night Program). On July 9, 2008, the BAAQMD Board adopted Regulation 6, Rule 3: Wood-Burning Devices, which is intended to reduce emissions that come from residential wood burning. This new rule restricts wood burning when air quality is unhealthy and a wintertime Spare the Air Advisory is issued. The rule also requires that only cleaner burning EPA-certified stoves and inserts be installed in new construction or remodels, including natural gas fireplaces. The rule applies to new woodstove and fireplace inserts. The regulation also places limits on excessive smoke, prohibits the burning of garbage and other harmful materials, and also requires the labeling of firewood and solid fuels sold within the Bay Area.

*BAAQMD CEQA Guidelines*

BAAQMD has prepared CEQA Guidelines to assist lead agencies, analysts, project proponents, and other interested parties in evaluating potential air quality impacts of projects and plans proposed in the Bay Area. The guidelines recommend procedures for evaluating projects or plans and thresholds to determine whether the impacts are significant; the guidelines are used in this analysis (see Section 4.3.3) to establish thresholds of significance for environmental impacts. These guidelines also provide direction for identifying measures to mitigate impacts related to air quality. BAAQMD's current CEQA guidelines were adopted in 2017. These guidelines include emission-based thresholds for project-level analysis, new procedures and thresholds for evaluating community risk, and greenhouse gas thresholds.

### 4.2.3 Significance Thresholds

Per the CEQA Guidelines, implementation of the project would have a significant impact related to air quality if it would:

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

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;

c) Expose sensitive receptors to substantial pollutant concentrations;

d) Create objectionable odors affecting a substantial number of people; or

e) Cause substantial adverse cumulative impacts with respect to air quality.

### Regional Significance Thresholds

The significance thresholds in the BAAQMD's CEQA Guidelines were used for evaluating the impacts associated with the implementation of the proposed project. The BAAQMD does not have plan-level mass thresholds, but rather requires consistency with the current air quality plan control measures and projected VMT or vehicle trip increase to be less than or equal to projected population increase. The guidelines also require overlay zones around existing and planned sources of TACs, at least 500 feet from all freeways and high-volume roadways as well as identifying the location and including policies to reduce the impacts of existing or planned sources of odors.

### Carbon Monoxide "Hot Spot" Thresholds

Historically, to determine whether a project poses the potential for a CO hotspot, the quantitative CO screening procedures provided in the *Transportation Project-Level Carbon Monoxide Protocol* (the Protocol) were used (UCD ITS, 1997). The Protocol determines a project may worsen air quality if the project increases the percentage of vehicles in cold start modes by two percent or more; significantly increases traffic volumes by five percent or more; or worsen traffic flow, defined for signalized intersections as increasing average delay at intersections operating at level of service (LOS) E or F or causing an intersection that would operate at LOS D or better without the project, to operate at LOS E or F. With new vehicles and improvements in fuels resulting in fewer emissions, the retirement of older polluting vehicles, and new controls and programs, CO concentrations have declined dramatically in California. As a result of emissions controls on new vehicles, the number of vehicles that can idle and the length of time that vehicles can idle before emissions would trigger a CO impact has increased, so the use of LOS as an indicator is no longer applicable for determining CO impacts.

BAAQMD developed a screening-level analysis for CO hotspots in 2010 which finds that projects that are consistent with the applicable congestion management program, and that do not cause traffic volumes at affected intersections to increase to more than 44,000 vehicles per hour, would not result in a CO hotspot that could exceed State or Federal air quality standards (BAAQMD 2017; pg. 3-4). Therefore, for purposes of this EIR, the project would pose the potential for a CO hotspot if it would exceed the BAAQMD's screening traffic level for peak hour intersection traffic volumes (44,000 vehicles per hour) (thereby having the potential to result in CO concentrations that exceed 1-hour State [20 ppm], 1-hour Federal [35 ppm], and/or State and Federal 8-hour [9 ppm] ambient air quality standards for CO).

### 4.2.4 Impacts and Mitigation Measures

This evaluates potential air quality impacts and recommends mitigation measures, as needed, to reduce significant impacts.

***Impact AIR-1 – The project would conflict with or obstruct implementation of the applicable air quality plan. Implementation of Mitigation Measure AIR-2 would reduce construction criteria air pollutant and toxic air contaminant emissions to a level that is below the BAAQMD-recommended threshold of significance. However, it cannot be definitively known or stated at this time that all future development projects occurring under implementation of the proposed project would be able to reduce potential criteria air pollutant emissions to levels that are below BAAQMD thresholds. This impact would be considered significant and unavoidable even with the incorporation of feasible mitigation measures. (Significant and Unavoidable Impact)***

**Analysis of Impacts**

As described in Section 4.3.1, the proposed project is within the San Francisco Bay Area Air Basin, which is under the jurisdiction of the BAAQMD. Pursuant to the methodology provided in Chapter 9 of the BAAQMD *CEQA Air Quality Guidelines*, consistency with the Air Quality Plan (AQP) is affirmed if the following occurs:

1. Does the project support the primary goals of the AQP?;
2. Does the project include applicable control measures from the AQP?; and
3. Does the project disrupt or hinder implementation of any AQP control measures?

Consistency Criterion 1 refers to the goals of the 2010 Bay Area Clean Air Plan (CAP): attain air quality standards, reduce population exposure and protecting public health in the Bay Area, and reduce greenhouse gas emissions and protect the climate. The 2017 AQP was designed to achieve attainment for all criteria air pollutants within the Bay Area Basin while still accommodating growth in the region.

Consistency Criterion 2 refers to the control measures included in the CAP. The BAAQMD's most recent Clean Air Plan (2017), includes 23 transportation control measures, two energy control measures, four building control measures, and four waste management control measures. To be consistent with the 2017 Clean Air Plan the City's General Plan policies should include all those measures that are consistent with the City's responsibility. The City would support programs that increase ridesharing, reduce pollutants generated by vehicle use, and meet the transportation control measures recommended by BAAQMD in the 2017 Clean Air Plan. The following measures require action by the city and will be required to be implemented in future development projects.

Transportation Control Measures

*TR2 Trip Reduction Programs:* Implement the regional Commuter Benefits Program (Rule 14-1) that requires employers with 50 or more Bay Area employees to provide commuter benefits. Encourage trip reduction policies and programs in local plans, e.g., general and specific plans while providing grants to support trip reduction efforts. Encourage local governments to require mitigation of vehicle travel as part of new development approval, to adopt transit benefits ordinances in order to reduce transit costs to employees, and to develop innovative ways to encourage rideshare, transit, cycling, and walking for work trips. Fund various employer-based trip reduction programs.

*TR3 Local and Regional Bus Service*: Fund local and regional bus projects, including operations and maintenance.

*TR4 Local and Regional Rail Service*: Fund local and regional rail service projects, including operations and maintenance.

*TR5 Transit Efficiency and Use*: Improve transit efficiency and make transit more convenient for riders through continued operation of 511 Transit, full implementation of Clipper® fare payment system and the Transit Hub Signage Program.

*TR6 Freeway and Arterial Systems*: Fund Improve the performance and efficiency of freeway and arterial systems through operational improvements, such as implementing the Freeway Performance Initiative, the Freeway Service Patrol and the Arterial Management Program.

*TR7 Safe Routes to Schools and Safe Routes to Transit:* Provide funds for the regional Safe Routes to School and Safe Routes to Transit Programs.

*TR8 Ridesharing, Last-Mile Connection:* Promote carpooling and vanpooling by providing funding to continue regional and local ridesharing programs, and support the expansion of carsharing programs. Provide incentive funding for pilot projects to evaluate the feasibility and cost-effectiveness of innovative ridesharing and other last-mile solution trip reduction strategies. Encourage employers to promote ridesharing and carsharing to their employees.

Energy Control Measures

*EN2 Decrease Electricity Demand:* Work with local governments to adopt additional energy efficiency policies and programs. Support local government energy efficiency program via best practices, model ordinances, and technical support. Work with partners to develop messaging to decrease electricity demand during peak times.

Building Control Measures

*BL2 Decarbonize Buildings:* Explore potential Air District rulemaking options regarding the sale of fossil fuel-based space and water heating systems for both residential and commercial use.

Explore incentives for property owners to replace their furnace, water heater or natural-gas powered appliances with zero-carbon alternatives. Update Air District guidance documents to recommend that commercial and multi-family developments install ground source heat pumps and solar hot water heaters.

*BL4 Urban Heat Islands Mitigations:* Develop and urge adoption of a model ordinance for "cool parking" that promotes the use of cool surface treatments for new parking facilities, as well existing surface lots undergoing resurfacing. Develop and promote adoption of model building code requirements for new construction or re-roofing/roofing upgrades for commercial and residential multi-family housing. Collaborate with expert partners to perform outreach to cities and counties to make them aware of cool roofing and cool paving techniques, and of new tools available.

<u>Waste Management Control Measures</u>

*WA3 Green Waste Diversion:* Develop model policies to facilitate local adoption of ordinances and programs to reduce the amount of green waste going to landfills.

*WA4 Recycling and Waste Reduction:* Develop or identify and promote model ordinances on community-wide zero waste goals and recycling of construction and demolition materials in commercial and public construction projects.

Additionally, the BAAQMD CEQA Guidelines require evaluation of growth of vehicle miles travelled (VMT). Table 4.6-3 in the Energy Section estimates 2,345,830 daily VMT for the new development compared to 2,028,575 daily VMT for existing uses, or 50.1 VMT per service population at project buildout and 59.8 daily VMT per service population for existing uses. Therefore, the project will have a VMT increase less than the projected population growth.

**Summary and Conclusions**

The proposed project would not result in operational emissions that exceed BAAQMD regional CEQA thresholds (described in Impact AIR-2, below) and would comply with all relevant AQP control measures. However, since the proposed Focused GPU could result in construction emissions that exceed the BAAQMD regional CEQA thresholds (as discussed in Impact AIR-2), the proposed project could increase the frequency and/or severity of air quality violations in the Basin or otherwise impede attainment of air quality standards, particularly national and state ozone standards. This is considered a potentially significant impact.

As discussed under Impact AIR-2, the incorporation of Mitigation Measure AIR-2 would reduce construction criteria air pollutant and toxic air contaminant emissions to a level that is below the BAAQMD-recommended threshold of significance. However, given the speculative nature of construction activities that could occur under implementation of the proposed project, it is not possible at this time to accurately assess the level of emissions that would be generated by future development and redevelopment activities in the City. Because it cannot be definitively known or stated at this time that construction emissions would be able to be mitigated such that all construction criteria air pollutant and toxic air contaminant emissions would be below BAAQMD-

recommended thresholds of significance, implementation of the proposed Focused GPU could still increase the frequency and/or severity of air quality violations in the Basin or otherwise impede attainment of air quality standards in the Basin. For this reason, the proposed Focused GPU would be inconsistent with the AQP. This impact would be significant and unavoidable.

***Impact AIR-2 – The project would result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard. Implementation of Mitigation Measure AIR-2 would reduce construction criteria air pollutant and toxic air contaminant emissions to a level that is below the BAAQMD-recommended threshold of significance. However, it cannot be definitively known or stated at this time that all future development projects occurring under implementation of the proposed project would be able to reduce potential criteria air pollutant emissions to levels that are below BAAQMD thresholds. This impact would be considered significant and unavoidable even with the incorporation of feasible mitigation measures. (Significant and Unavoidable Impact)***

### Analysis of Impacts

Criteria Pollutants

The proposed project sets forth the City's vision for the types of development that would occur over the next approximately eight years. The Focused GPU proposed zoning and land use changes permit higher housing development intensity within the City boundaries than compared to the existing General Plan. Criteria air pollutant and other emissions would result from construction activities, and from the operation of residences, businesses, and other land uses within the City.

Project implementation would generate short-term construction and long-term operational emissions of regulated air pollutants (i.e., criteria air pollutants and TACs). These emissions would be released to the ambient air and disperse according to the topographic and meteorological influences that prevail near the project area and in the greater Bay Area Basin (see Section 4.3.1). The BAAQMD has no plan-level significance thresholds; however, in developing its CEQA significance thresholds, the BAAQMD considered the emission levels at which a project's individual emissions would be cumulatively considerable (BAAQMD 2017). The BAAQMD considers projects that result in emissions that exceed its CEQA significance thresholds to result in individual impacts that are cumulatively considerable and significant. The BAAQMD maintains project-level significance thresholds to assess how individual projects may affect air quality on large and small geographic scales. The potential for construction and operational emissions associated with project implementation to impact air quality on a regional and local level is discussed below.

Construction Emissions

The proposed project would not directly result in construction of any development or infrastructure; however, future development supported by the project would result in short-term

construction-related criteria pollutant emissions that have the potential to have an adverse effect on air quality. Short-term criteria air pollutant emissions would occur during demolition, site preparation, grading, building construction, paving, and architectural coating activities associated with specific, new development projects. Emissions would occur from use of equipment, worker, vendor and hauling trips, and disturbance of onsite soils (fugitive dust). ROG and $NO_X$ emissions are primarily associated with gas and diesel equipment exhaust and the application of architectural coatings. Fugitive dust emissions ($PM_{10}$ and $PM_{2.5}$) are primarily associated with site preparation and vary as a function of such parameters as soil silt content, soil moisture, wind speed, acreage of disturbance area, and VMT by construction vehicles on- and off-site. Typical construction equipment associated with development and redevelopment projects includes, but is not limited to, dozers, graders, excavators, loaders, and trucks.

Although it is not possible to know the exact type, number, location, or duration of future construction projects, future development activities would generally entail demolition, site preparation, grading, building construction, paving, and painting. Since San Carlos is generally a built-out city, many new projects in the City will likely require the demolition of existing structures to make room for newer ones. Fugitive dust ($PM_{10}$) emissions would typically be greatest during building demolition, site preparation, and grading due to the disturbance of soils and transport of material. $NO_X$ emissions would also result from the combustion of diesel fuels used to power off-road heavy-duty pieces of equipment (e.g., backhoes, bulldozers, excavators, etc.). ROG emissions would generally be greatest during architectural coating activities. The types and quantity of equipment, as well as duration of construction activities, would be dependent on project-specific conditions. Larger projects would require more equipment over a longer timeframe than that required for redevelopment of a single, residential home or small residential or mixed-use project.

Given the speculative nature of construction activities that could occur under implementation of the proposed project, it is not possible at this time to accurately assess the level of emissions that would be generated by future development and redevelopment activities in the City. It is possible that either no construction could be occurring within the City at any given time, or multiple projects could be occurring simultaneously. Despite these unknowns, it is plausible that one or more projects developed under implementation of the proposed project could have the potential to exceed one or more of the BAAQMD's construction criteria air pollutant threshold of significance (e.g., NOx for a project involving a substantial amount of earthwork during grading, ROG during architectural coating activities, etc.). Therefore, this impact is potentially significant and requires mitigation.

<u>Operational Emissions</u>

If adopted, the proposed project would accommodate new residential land uses, some of which would involve replace existing development. Overall, project implementation would increase residential dwelling units in the City under the project buildout scenario.

Growth associated with implementation of the project would result in long-term regional emissions of criteria air pollutants associated with the operation of area sources, energy sources, and mobile

sources. Area source emissions, which are widely distributed and made of many small emissions sources (e.g., landscaping equipment, consumer products, painting operations, etc.), were modeled according to the size and type of land uses proposed. Energy sources were also modeled based on the size and type of land uses included in the project's 2040 growth forecast. Mobile-source emissions were modeled based on the daily vehicle trips that would result from the proposed project.

The net change in emissions of regulated air pollutants that would occur with implementation of the project was modeled using CalEEMod, V. 2020.4.0. The net change in operational emissions for the project was modeled based on the project's 2040 growth projection, using default data assumptions provided by CalEEMod, with the following project-specific modifications:

- **Land Use Development:** The default acreage and square footage for proposed development intensities within the project area was adjusted to reflect proposed development conditions (considering allowable floor-to-area ratio, acreage in the project area, etc.).
- **Mobile Sources**
  - **Trip Generation and Distance:** An average trip distance of approximately 8.17 miles was derived from a default CalEEMod run. This trip distance was used in conjunction with the average, daily trip generation estimate prepared by Kittelson & Associates for the proposed land uses (28,957 trips per day) which is presented in the Transportation Chapter.
  - **Emission Factors:** Vehicle emission factors were updated based on derived EMFAC20201 (version 1.0.1) emission rates for San Mateo County (Bay Area) in the Year 2040, consistent with the methodology described in the CalEEMod User's Guide Appendix A (CAPCOA 2017b).

The net change in long-term operational emissions that would be generated by project growth is shown in Table 4.2-3. The net change in emissions evaluated in this EIR is based on the difference between the existing land uses under project buildout conditions and the proposed project land uses under existing conditions, which estimates 2040 emissions for the existing conditions. Table 4.2-3 shows the project would reduce emissions per capita of all calculated pollutants due to increased housing density and would therefore not have a significant impact.

**Table 4.2-3: 2040 Project Growth Forecast Operational Emissions**

| Emissions Scenario | Maximum Daily Pollutant Emissions (Pounds per Day)[(A)] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $PM_{10}$ | | | $PM_{2.5}$ | | |
| | ROG | $NO_X$ | CO | $SO_2$ | Dust | Exhaust | Total | Dust | Exhaust | Total |
| **Project Buildout Scenario** | | | | | | | | | | |
| Area Sources | 1,618.50 | 37.02 | 2,306.20 | 3.88 | 0.00 | 286.09 | 286.09 | 0.00 | 286.09 | 286.09 |
| Energy Sources | 1.22 | 10.40 | 4.43 | 0.07 | 0.00 | 0.84 | 0.84 | 0.00 | 0.84 | 0.84 |

| Table 4.2-3: 2040 Project Growth Forecast Operational Emissions | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Emissions Scenario** | **Maximum Daily Pollutant Emissions (Pounds per Day)[(A)]** | | | | | | | | | |
| | | | | | **$PM_{10}$** | | | **$PM_{2.5}$** | | |
| | **ROG** | **$NO_X$** | **CO** | **$SO_2$** | **Dust** | **Exhaust** | **Total** | **Dust** | **Exhaust** | **Total** |
| Mobile Source | 55.05 | 44.97 | 530.18 | 1.01 | 140.70 | 0.45 | 141.15 | 37.47 | 0.42 | 37.89 |
| *Total[(B)]* | *1,674.76* | *92.39* | *2,840.81* | *4.95* | *140.70* | *287.38* | *428.08* | *37.47* | *287.35* | *324.83* |
| Residents | 13,480 | | | | | | | | | |
| *Emissions per Resident* | *0.124* | *0.007* | *0.211* | *0.000* | *0.010* | *0.021* | *0.032* | *0.003* | *0.021* | *0.024* |
| **Existing Scenario** | | | | | | | | | | |
| Area Sources | 1,413.00 | 30.45 | 1,953.82 | 3.35 | 0.00 | 248.78 | 248.78 | 0.00 | 248.78 | 248.78 |
| Energy Sources | 1.73 | 14.76 | 6.28 | 0.09 | 0.00 | 1.19 | 1.19 | 0.00 | 1.19 | 1.19 |
| Mobile Source | 56.05 | 45.80 | 539.85 | 1.03 | 143.27 | 0.46 | 143.72 | 38.16 | 0.43 | 38.58 |
| *Total[(B)]* | *1,470.78* | *91.00* | *2,499.95* | *4.47* | *143.27* | *250.42* | *393.69* | *38.16* | *250.39* | *288.55* |
| Residents | 10,682 | | | | | | | | | |
| *Emissions per Resident* | *0.138* | *0.009* | *0.234* | *0.000* | *0.013* | *0.023* | *0.037* | *0.004* | *0.023* | *0.027* |
| **Net Change in Emissions Levels** | | | | | | | | | | |
| *Emissions per Resident* | *-0.013* | *-0.002* | *-0.023* | *0.000* | *-0.0030* | *-0.002* | *-0.005* | *-0.001* | *-0.002* | *-0.003* |
| *Percent Change per Resident* | *-9.8%* | *-19.5%* | *-10.0%* | *-12.2%* | *-22.2%* | *-9.1%* | *-13.8%* | *-22.2%* | *-9.1%* | *-10.8%* |

Source: MD Acoustics, 2022 (see Appendix C)
Emissions estimated using CalEEMod, V 2020.4.0. Estimates are based on default model assumptions unless otherwise noted in this document. Maximum daily ROG, CO, SOX emissions occur during the summer. Maximum daily NOX, $PM_{10}$, and $PM_{2.5}$ emissions occur during the winter.
Totals may not equal due to rounding.

### Level of Significance Before Mitigation

*Construction Emissions.* As discussed above, construction emissions associated with future development activities facilitated under implementation of the proposed project could exceed BAAQMD-recommended CEQA significance thresholds for regional criteria air pollutant emissions. This is considered a potentially significant impact, therefore Mitigation Measure AIR-2 is proposed, see below.

*Operational Emissions.* As shown in Table 4.2-3, the modeled, maximum daily operational emission associated with potential project growth would overall decrease per capita and would not have a significant impact.

### Mitigation Measures

**Mitigation Measure AIR-2: Require a Project-level Construction Assessment for New Discretionary Development Projects.** The City shall require applicants to submit a quantitative project-level construction criteria air pollutant and toxic air contaminant emissions analysis for future discretionary development projects that are not exempt under CEQA and do not meet the

BAAQMD screening criteria. The estimated construction criteria air pollutant and toxic air contaminant emissions shall be compared against the thresholds of significance maintained by the Bay Area Air Quality Management District (BAAQMD) and, if emissions are shown to be above BAAQMD thresholds, the City shall require the imposition and implementation of mitigation measures to reduce emissions below the thresholds that have been exceeded. Mitigation measures to reduce emissions could include, but are not limited to:

- Selection of specific construction equipment (e.g., specialized pieces of equipment with smaller engines or equipment that will be more efficient and reduce engine runtime);
- Requiring equipment to use alternative fuel sources (e.g., electric-powered and liquefied or compressed natural gas), meet cleaner emission standards (e.g., U.S. EPA Tier IV Final emissions standards for equipment greater than 50-horsepower), and/or utilizing added exhaust devices (e.g., Level 3 Diesel Particular Filter);
- Minimizing the idling time of diesel-powered construction equipment to two minutes; and
- Application of Low-VOC paints to interior and/or exterior surfaces (e.g., paints that meet BAAQMD Regulation 8 Rule 3 requirements).

**Level of Significance After Mitigation**

*Construction Emissions.* As described in the preceding analysis, there is uncertainty regarding the specific nature of construction activities that would be facilitated under implementation of the proposed project. Despite the implementation of Mitigation Measure AIR-2, which requires the preparation of project-specific air quality analysis prior to the construction of any new development and incorporation of mitigation measures if emissions levels are shown to be above BAAQMD-recommended thresholds of significance, it cannot be definitively known or stated at this time that all future development projects occurring under implementation of the proposed project would be able to reduce potential criteria air pollutant emissions to levels that are below BAAQMD thresholds. Therefore, with regard to criteria air pollutant emissions generated during construction activities, this impact would be considered significant and unavoidable even with the incorporation of feasible mitigation measures.

*Operational Emissions.* Not applicable.

***Impact AIR-3 – The project could expose sensitive receptors to substantial pollutant concentrations. Implementation of Mitigation Measure AIR-2 would reduce construction criteria air pollutant and toxic air contaminant emissions to a level that is below the BAAQMD-recommended threshold of significance. However, with regard to localized criteria air pollutant and TAC emissions generated during future construction activities it cannot be definitively known or stated at this time that all future development projects occurring under implementation of the proposed project would be able to reduce potential criteria air pollutant and TAC emissions to levels that are below BAAQMD thresholds. This impact would be***

***considered significant and unavoidable even with the incorporation of feasible mitigation measures. (Significant and Unavoidable Impact)***

**Analysis of Impacts**

Sensitive Receptors

Growth projected to occur under the project could expose existing and new sensitive receptors to substantial concentrations of criteria air pollutants and TAC emissions that pose adverse health effects. The potential for the proposed project to expose sensitive receptors to substantial pollutant concentrations is evaluated below.

CO Hotspots

Based on the TIA prepared for the proposed project (see Appendix E), the maximum number of vehicles moving through the study analysis zone under the project's 2040 growth projection would be 28,957 vehicles per day. This level of traffic is below the screening threshold of 44,000 vehicles per hour for a CO hotspot analysis at a single intersection (See Section 4.3.3). Therefore, the project would not cause or significantly contribute to CO concentrations that exceed State or Federal ambient air quality standards for CO. This impact would be less than significant.

Construction Emissions

As discussed under Impact AIR-2, future development activities facilitated under implementation of the proposed project would generate emissions, including emissions of DPM (a TAC), during construction activities. These emissions would occur intermittently over the approximately 18-year growth period associated with the project. Although specific details regarding project development within the Project Area are not known at this time, it is possible that one or more projects developed under implementation of the proposed project could have the potential to exceed BAAQMD LSTs and thresholds of significance for cancerogenic and non-cancerogenic health risks.

Operational Emissions

As shown in Table 4.2-3, implementation of the proposed project would generally reduce the quantity of criteria air pollutants emitted per capita within the City. As discussed previously, the BAAQMD's CEQA thresholds were developed to attain the CAAQS and NAAQS. In developing the CAAQS and NAAQS, the U.S. EPA and CARB considered scientific evidence linking exposure to air pollutants to health risks. Although each individual's health characteristics, environment, and pre-disposition to adverse respiratory health effects is different, compliance with the CAAQS and NAAQS is intended to protect the most sensitive individuals. As described under Impact -AIR-2, the proposed project would not generate operational emissions such that receptor exposure to substantial pollutant concentrations would occur. Even if operational emissions were to have exceeded the BAAQMD's thresholds, a significant impact would likely have not occurred.

In the amicus brief filed by the SCAQMD on the California Supreme Court's decision in *Sierra Club versus County of Fresno*, the SCAQMD noted that, "[it] takes a large amount of additional precursor emissions [e.g., NOx] to cause a modeled increase in ambient ozone levels… a project emitting only 10 tons per year of NOx or VOC is small enough that its regional impact on ambient ozone levels may not be detected in the regional air quality models used to determine ozone levels…" (SCAQMD 2015).

The proposed project solely focuses on new residential development to increase dwelling unit density and does not reimagine the City in a manner that would substantially increase the quantity of highly polluting land uses (e.g., industrial facilities). Therefore, the changes in land use proposed by the project do not have the potential to alter the city-wide emissions profile in a manner that could exacerbate or contribute to significant health risks at or in proximity of the project area.

<u>Exacerbation of Existing Sources of Pollutants</u>

Project growth would add new residential development in the city and could place new, sensitive receptors in proximity to existing sources of emissions and local stationary sources of emissions.

Per the recent ruling by the California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015), projects are not required to analyze how existing conditions might impact a project's future users or residents. As such, this analysis does not focus on potential, future receptor exposure to existing emissions from existing sources of pollutants in and near the City. Rather, it focuses on the incremental increase in pollutant concentrations and associated impacts (including adverse health impacts) that could occur if existing operations were to change as a result of project growth.

Under the project growth projection, the proposed project would increase the number of residents in the project area from approximately 10,682 people to approximately 13,480 people, an increase of approximately 2,798 people (21.9% increase). Although this growth would occur throughout the City, it would occur primarily in areas focused for redevelopment. The growth envisioned under the project would generate long-term emissions, primarily associated with area and mobile sources that would combust natural gas or gasoline. As described under Impact AIR-2, emissions of operations-related criteria air pollutants would comply with BAAQMD significance thresholds and would not result in, nor substantially exacerbate, substantial pollutant concentrations at sensitive receptor locations.

<u>Additional Information on Existing Sources of Pollutants</u>

The proposed project could result in new sensitive receptors being exposed to significant sources of TAC emissions. The CARB *Air Quality and Land Use Handbook* recommends avoiding the siting of new sensitive land uses (e.g., residences, schools, etc.) within:

- 300 feet of large gasoline fueling stations (with a throughput of more than 3.6 million gallons of gasoline per year);

- Within 300 feet of dry cleaning operations;
- Within 500 feet of freeways, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day; or
- Within 1,000 feet of a major rail service or maintenance yard.

Although the potential exists for the project to result in new sensitive residential receptors near existing sources of emissions, the project would comply with the CEQA guidance and would not exacerbate pollutant concentrations or health risks associated with emissions sources and, therefore, would not materially change the existing environmental risks present in the project area.

**Level of Significance Before Mitigation**

*CO Hotspots*. The proposed project would not exceed the screening threshold of 44,000 vehicles per hour. Therefore, it would not result in a CO hotspot. This impact would be less than significant.

*Construction Emissions*. As discussed under the preceding analysis and Impact AIR-2, construction emissions associated with future development activities facilitated under implementation of the proposed project could exceed BAAQMD construction thresholds and cancerogenic and non-cancerogenic threshold maintained and recommended by the BAAQMD. This is considered a potentially significant impact.

*Exacerbation of Existing Sources of Pollutants*. Implementation of the proposed project would not exacerbate existing sources of pollutants in and near the project area. This impact would be less than significant.

*Additional Information on Existing Sources of Pollutants*. This information has been provided for informational purposes and is not considered part of the CEQA analysis.

**Mitigation Measures**

See Mitigation Measure AIR-2.

**Level of Significance After Mitigation**

*CO Hotspots.* Not applicable.

*Construction Emissions*. There is uncertainty regarding the specific nature of construction activities that would be facilitated under implementation of the proposed project. Despite the implementation of Mitigation Measure AIR-2, which requires the preparation of project-specific air quality analysis prior to the construction of any new development and incorporation of mitigation measures if emissions levels are shown to be above BAAQMD-recommended thresholds of significance for cancerogenic and non-cancerogenic risks, as well as BAAQMD criteria thresholds, it cannot be definitively known or stated at this time that all future development

projects occurring under implementation of the proposed project would be able to reduce potential risks and localized construction air pollutant emissions to levels that are below BAAQMD thresholds. Therefore, with regard to localized criteria air pollutant and TAC emissions generated during future construction activities, this impact would be significant and unavoidable even with the incorporation of feasible mitigation measures.

*Exacerbation of Existing Sources of Pollutants.* Not applicable.

*Additional Information on Existing Sources of Pollutants.* Not applicable.

***Impact AIR-4 – The project would not result in other emissions such as those leading to odors adversely affecting a substantial number of people. (Less Than Significant Impact)***

According to the BAAQMD *CEQA Air Quality Guidelines*, land uses associated with odor complaints include agricultural operations, wastewater treatment plants, landfills, and certain industrial operations (such as manufacturing uses that produce chemicals, paper, etc.). The project does not include these types of sources, and there are no such active sources in or near the project area.

Construction occurring within the project area could produce odors from fuel combustion or solvents/paints used. These odors would be temporary, quickly disperse, and would not affect a substantial number of people.

Under the project growth projection, the project would increase the amount of residential development in the city, including multi-family development that could be located close to retail, restaurant, and other commercial land uses that may generate localized sources of odors that may or may not be objectionable to nearby residential land uses.

The project does not, in and of itself, permit or authorize any new, major sources of potential odors (e.g., wastewater treatment plant), and odor impacts would be less than significant with standard environmental review practices.

***Impact AIR-5 –The project could cause substantial adverse cumulative impacts with respect to Air Quality. Because future construction activities could result in ozone precursor and PM emissions that exceed BAAQMD thresholds, the project could increase the frequency and/or severity of air quality violations in the Bay Area Basin or otherwise impede attainment of air quality standards. (Significant and Unavoidable Impact)***

As described in Section 4.3.1, the Bay Area Basin is designated nonattainment for national and State $O_3$ standards, national and State $PM_{2.5}$ standards, and national $PM_{10}$ standards. The BAAQMD, in developing its CEQA significance thresholds, considered the emission levels at which a project's individual emissions would be cumulatively considerable (BAAQMD 2017). The BAAQMD considers projects that result in emissions that exceed its CEQA significance thresholds to result in individual impacts that are cumulatively considerable and significant.

The analyses of emissions associated with potential project growth in 2040 under Impact AIR-2 indicates the proposed project would result in increased emissions that do not exceed BAAQMD planning assumptions in the AQMP; however, ozone precursor (e.g., NOx and ROG) and PM emissions during construction activities could exceed applicable BAAQMD thresholds of significance.

The project growth projection and associated construction emissions could result in emissions levels that exceed BAAQMD-recommended CEQA thresholds of significance. This is a potentially significant impact and mitigation measure AIR-2 is proposed.

Mitigation Measure AIR-2 would require applicants to prepare project-specific air quality analyses and incorporate mitigation, as necessary, to reduce exhaust emissions of $NO_X$ and other pollutants from construction vehicles; however, since specific development projects are unknown, it cannot be assured that all future development would be able to reduce emissions below BAAQMD thresholds. Nonetheless, because future construction activities could result in ozone precursor and PM emissions that exceed BAAQMD thresholds, the project could increase the frequency and/or severity of air quality violations in the Bay Area Basin or otherwise impede attainment of air quality standards. Therefore, this impact would be significant and unavoidable.

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# 4.3 BIOLOGICAL RESOURCES

## 4.3.1 Environmental Setting

Biological resources in San Carlos are summarized in the sections below. The following information is from the San Carlos General Plan Environmental Management Element, updated with a December 2021 search of the California Natural Diversity Database (CNDDB), and a fine scale vegetation map of San Mateo County recently released by the Golden Gate National Parks Conservancy and other public and private partners (GGNPC 2022).

### Land Cover and Vegetation Types in San Carlos

A San Mateo County fine scale vegetation map was released on March 3, 2022, by the Golden Gate National Parks Conservancy and other public and private partners (GGNPC 2022). The San Mateo County fine scale vegetation map is a 106-class vegetation map of San Mateo County with 97,582 polygons. The fine scale vegetation map represents the state of the landscape in 2018 and adheres to the National Vegetation Classification System. The fine scale vegetation map was created using semi-automated methods that include field work, computer-based machine learning, and manual aerial photo interpretation. The portion of the fine scale vegetation map within the San Carlos SOI was utilized to create Figure 4.3-1 and Table 4.3-1 below. Land cover and vegetation types in the San Carlos SOI are summarized below based on the mapped information.

**Table 4.3-1: Land Cover and Vegetation Types in the San Carlos Sphere of Influence**

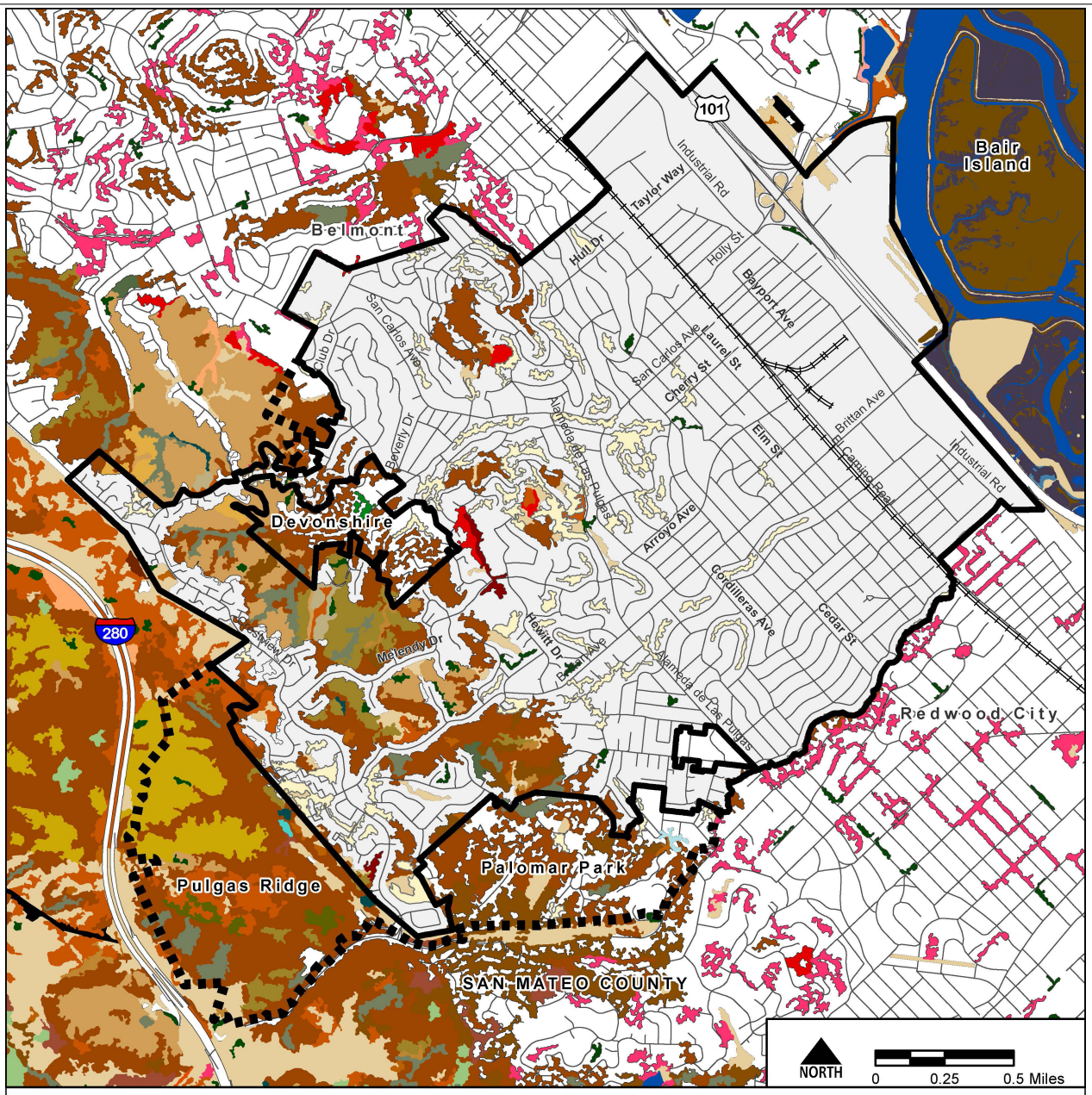
| Land Cover/ Vegetation Type | Acres |
|---|---|
| Developed and Landscaped | 3,110.70 |
| Developed | 2,930.22 |
| Major Road | 25.16 |
| Non-native Forest | 155.32 |
| *Forest and Woodland* | 761.55 |
| Blue oak woodland and forest | 602.45 |
| Mixed oak forest and woodland | 63.89 |
| California bay forest and woodland | 48.39 |
| Forest fragment | 17.19 |
| Eucalyptus groves | 9.87 |
| Monterey pine plantation | 7.10 |
| Valley oak woodland and forest | 2.92 |
| Redwood forest and woodland | 2.28 |
| Goodding's willow-red willow riparian woodland and forest | 1.08 |
| *Shrubland* | 315.2 |
| Chamise chaparral | 80.10 |
| Brittle leaf-woolly leaf manzanita chaparral | 76.53 |
| California sagebrush scrub | 65.50 |

| Table 4.3-1: Land Cover and Vegetation Types in the San Carlos Sphere of Influence | |
|---|---|
| **Land Cover/ Vegetation Type** | **Acres** |
| Coyote brush scrub | 60.76 |
| Non-native shrub | 8.97 |
| Poison oak scrub | 6.22 |
| Mesic coastal scrub | 6.10 |
| Shrub fragment | 6.02 |
| Wedge leaf ceanothus chaparral | 5.00 |
| *Grassland & Herbs* | 84.92 |
| Californian annual & perennial grassland | 84.92 |
| *Wetlands and Waterbodies* | 4.67 |
| Freshwater wet meadow & marsh | 1.77 |
| Mudflat/dry pond bottom | 1.37 |
| Pickleweed mats | 0.95 |
| Water | 0.54 |
| Gum plant patches | 0.04 |
| **Total Area** | **4,277.04** |

Source: GGNPC 2022

*Developed/Landscaped (3,110.70 acres).* Most of the land in the San Carlos SOI (about 72.7 percent) is developed and/or landscaped, particularly within the City limits and on the eastern side of the City. Developed areas include buildings, roads, parking lots, fields, and landscaped areas. Landscape vegetation consists of street trees, lawns, commercial and public landscaping such as ornamental trees and shrubs, and residential garden plants. Plant species are mostly non-native and are chosen for beauty, edibility, and/or drought tolerance. Urban landscape plants and sometimes buildings do provide habitat for some wildlife such as birds and small mammals commonly found in urban areas.

*Forest and Woodland (761.55 acres).* About 17.8 percent of land within the San Carlos SOI has forest or woodland vegetation. Forest and woodland vegetation are mostly concentrated in the hills in the western part of the City, and outside of the City limits (but within the SOI) in Pulgas Ridge. Forest and woodland vegetation mapped in the San Carlos SOI is predominantly oak woodland dominated by coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*), or blue oak (*Quercus lobata*). Other forest and woodland vegetation types mapped in the San Carlos SOI include California bay (*Umbellularia californica*) forest and woodland, eucalyptus groves (predominantly blue gum, *Eucalyptus globulus*), Monterey pine (*Pinus radiata*), coast redwood (*Seqoia sempervirens*), and Goodding's willow (*Salix gooddingii*)- red willow (*Salix laevigata*) riparian woodland (in Pulgas Ridge). Eucalyptus, Monterey pine, and coast redwood are not naturally occurring in San Carlos and were planted. Forests and woodlands provide habitat for a variety of native wildlife including invertebrates, amphibians and reptiles, birds, and mammals.




**San Mateo Fine Scale Vegetation Map**

- Redwood Forest and Woodland
- Developed
- California Buckeye Groves
- Madrone Forest
- Mixed Oak Forest and Woodland
- Coast Live Oak Woodland and Forest
- Blue Oak Woodland and Forest
- Valley Oak Woodland and Forest
- California Bay Forest and Woodland Mapping Unit
- Californian Annual & Perennial Grassland Mapping Unit
- Salt Marsh Bulrush Marshes
- Salt Grass Flats
- Gum Plant Patches
- Pickleweed Mats
- Vancouverian Freshwater Wet Meadow & Marsh Group
- Eucalyptus Provisional Semi-Natural Assocation
- Monterey Cypress Stands
- Non-native Forest
- Non-native Herbaceous
- Non-native Shrub
- Monterey Pine Plantation Provisional Semi-Natural Association
- Barren and Sparsely Vegetated
- Forest Fragment
- Mudflat/Dry Pond Bottom Mapping Unit
- Water
- Shrub Fragment
- Goodding's Willow – Red Willow Riparian Woodland and Forest
- Arroyo Willow Thickets
- Chamise Chaparral
- Brittle Leaf – Woolly Leaf Manzanita Chaparral
- California Sagebrush – (Purple Sage) Scrub
- Coyote Brush Scrub
- Buck Brush Chaparral
- Mesic Coastal Scrub Mapping Unit
- Holly Leaf Cherry – Toyon – Greenbark Ceanothus Chaparral
- Poison Oak – (Coyote Brush) Scrub Association

**Base Map Features**

- City of San Carlos
- Sphere of Influence
- Streets
- Railroad

Sources: Golden Gate National Parks Conservancy, Tukman Geospatial LLC, Aerial Information Systems, National Park Service, Midpeninsula Regional Open Space District, County of San Mateo, San Francisco Public Utilities Commission, Peninsula Open Space Trust, San Mateo City/County Association of Gov'ts, City of San Carlos, Urban Footprint, MIG, 2022

*Source: MIG 2022*

**Figure 4.3-1** Vegetation Communities

*Focused General Plan Update*

MIG

*Shrubland (315.2 acres).* About 7.4 percent of land within the San Carlos SOI has shrubland vegetation. Shrubland vegetation is mostly concentrated in the hills in the western part of the City and outside of the City limits (but within the SOI) in Pulgas Ridge. The most common shrubland vegetation in the San Carlos SOI is mapped as chamise (*Adenostoma fasciculatum*) chaparral, brittle leaf (*Arctostaphylos crustacea*)-woolly manzanita (*Arctostaphylos tomentosa*) chaparral, California sagebrush (*Artemesia californica*) scrub, and coyote brush (*Baccharis pilularis*) scrub. Other types of shrublands mapped in the San Carlos SOI include non-native shrubs, poison oak (*Toxicodendron diversilobum*) scrub, mesic coastal scrub, and wedge leaf ceanothus (*Ceanothus cuneatus*) chaparral. Shrublands provide habitat for a variety of native wildlife including invertebrates, amphibians and reptiles, birds, and mammals.

*Grassland (84.92 acres).* About 2 percent of land within the San Carlos SOI has grassland vegetation. Grassland vegetation is mostly concentrated in the hills in the western part of the City and outside of the City limits (but within the SOI) in Pulgas Ridge. All grassland vegetation in the San Carlos SOI is mapped as Californian annual and perennial grassland, which mostly consists of non-native annual grasses that have been naturalized, such as wild oats (*Avena* spp.) and bromes (*Bromus* spp.). Grasslands provide habitat for a variety of wildlife including invertebrates, amphibians and reptiles, birds, and mammals, though native perennial grasslands (less common in San Carlos) provide higher quality habitat than non-native annual grasslands (common in urban areas).

*Wetlands and Waterbodies (4.67 acres).* About 0.1 percent of land in the San Carlos SOI has wetlands or other waterbodies. There is one freshwater meadow or marsh mapped outside the City limits but within the San Carlos SOI near Palomar Park. There are very small areas of mudflats/dry pond bottom, water, pickleweed (*Sarcocornia pacifica*) mats, and gum plant (*Grindelia stricta*) patches mapped on the eastern border of San Carlos along the Bayshore. Coastal marsh and wetland habitats support abundant wildlife, including several special-status species, but are mostly outside the San Carlos SOI to the east.

### Special-Status Plant and Wildlife Species in San Carlos

San Carlos' hilly, densely vegetated open space areas and proximity to the San Francisco Bay provide potential habitat for a variety of special-status plant and wildlife species. As of December 2021, the California Natural Diversity Database (CNDDB), an inventory of rare plants and animals in California, identified no occurrences of special-status species in the developed areas of San Carlos. However, known occurrences of special-status species are documented in Pulgas Ridge Open Space Preserve (OSP), Big Canyon Park, and Eaton Park as well as a suburban area North of Malabar Road and Melendy Drive. Special-status species with known occurrences within five miles of the center of San Carlos were also assessed for the potential to occur in the San Carlos SOI, and those found to have a moderate or high potential to occur are included in Table 4.3-2 below. Special-status species potential to occur in the City of San Carlos or its SOI is based on nearby records and the presence of suitable habitat within the City or its SOI.

| Table 4.3-2: Special-Status Species with the Potential to Occur in the San Carlos SOI[1] | | | |
|---|---|---|---|
| **Species** | **Status** | **Habitat** | **Potential to Occur in San Carlos SOI** |
| *Plants* | | | |
| Franciscan onion *Allium peninsulare* var. *franciscanum* | CRPR 1B.2 | Cismontane woodland, valley and foothill grassland. Clay soils; often on serpentine; sometimes on volcanics. Dry hillsides. 5-320 m. | **Present.** Observed in Pulgas Ridge OSP in 2014 and Eaton Park in 2015. |
| Bent-flowered fiddleneck *Amsinckia lunaris* | CRPR 1B.2 | Cismontane woodland, valley and foothill grassland, coastal bluff scrub. 3-795 m. | **Moderate.** Two occurrences within five miles of San Carlos and there is some suitable habitat in open space areas. |
| San Francisco collinsia *Collinsia multicolor* | CRPR 1B.2 | Closed-cone coniferous forest, coastal scrub. On decomposed shale (mudstone) mixed with humus; sometimes on serpentine. 10-275 m. | **Present.** Observed in Big Canyon Park and Eaton Park in 2017. |
| Western leatherwood *Dirca occidentalis* | CRPR 1B.2 | Broadleafed upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, north coast coniferous forest, riparian forest, riparian woodland. On brushy slopes, mesic sites; mostly in mixed evergreen and foothill woodland communities. 20-640 m. | **Present.** Observed in Pulgas Ridge OSP in 2017 and Eaton Park in 2015. |
| Arcuate bush mallow *Malacothamnus arcuatus* | CRPR 1B.2 | Chaparral, cismontane woodland. Gravelly alluvium. 1-735 m. | **High.** Observed in Pulgas Ridge OSP in 2002. |
| Woodland woollythreads *Monolopia gracilens* | CRPR 1B.2 | Chaparral, valley and foothill grassland, cismontane woodland, broadleafed upland forest, North Coast coniferous forest. Grassy sites, in openings; sandy to rocky soils. Often seen on serpentine after burns, but may have only weak affinity to serpentine. 120-975 m. | **High.** Observed in San Carlos North of Malabar Rd. and Melendy Dr. in 1973. |
| Choris' popcorn flower *Plagiobothrys chorisianus var. chorisianus* | CRPR 1B.2 | Chaparral, coastal scrub, coastal prairie. Mesic sites. 5-705 m. | **Moderate.** Two occurrences within five miles of San Carlos and there is some suitable habitat in open space areas. |
| Chaparral ragwort *Senecio aphanactis* | CRPR 2B.2 | Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. 20-1020 m. | **High.** Observed in San Carlos North of Malabar Rd. and Melendy Dr. in 1973. |

[1] Note that Table 4.3-2 provides a generalized list of special-status species present or with the potential to occur in the San Carlos SOI based on CNDDB records and general habitat types present in San Carlos; no field surveys or site-specific analysis was performed. Field surveys and/or site-specific analysis could reveal additional species with the potential to occur.

| Table 4.3-2: Special-Status Species with the Potential to Occur in the San Carlos SOI[1] | | | |
|---|---|---|---|
| **Species** | **Status** | **Habitat** | **Potential to Occur in San Carlos SOI** |
| *Reptiles & Amphibians* | | | |
| Western pond turtle<br>*Emys marmorata* | CSSC | A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying. | **Moderate.** Five occurrences within five miles of San Carlos and there is some suitable habitat in creek areas. |
| California red-legged frog<br>*Rana draytonii* | FT, CSSC | Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat. | **Moderate.** Twelve occurrences within five miles of San Carlos and there is some suitable habitat in creek areas. |
| San Francisco garter snake | FE, SE, CFP | Vicinity of freshwater marshes, ponds and slow-moving streams in San Mateo County and extreme northern Santa Cruz County. Prefers dense cover and water depths of at least one foot. Upland areas near water are also very important. | **Moderate.** Six occurrences within five miles of San Carlos and there is some suitable habitat in open space areas within the San Carlos SOI. |
| *Birds* | | | |
| White-tailed kite<br>*Elanus leucurus* | CFP | Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching. | **Moderate.** Three occurrences within five miles of San Carlos and there is some suitable habitat in open space areas. |
| *Mammals* | | | |
| Pallid bat<br>*Antrozous pallidus* | CSSC | Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. | **Moderate.** Two occurrences within five miles of San Carlos and some suitable habitat in open space areas. |
| Hoary bat<br>*Lasiurus cinereus* | CNDDB | Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water. | **Moderate.** Four occurrences within five miles of San Carlos and some suitable habitat in open space areas. |
| San Francisco dusky-footed woodrat<br>*Neotoma fuscipes annectens* | CSSC | Forest habitats of moderate canopy and moderate to dense understory. May prefer chaparral and redwood habitats. Constructs nests of shredded grass, leaves and other material. May be limited by availability of nest-building materials. | **High.** Three occurrences within five miles of San Carlos and suitable habitat in open space areas; this species is present according to the San Carlos General Plan (2009). |
| Federal:<br>FE = Listed as endangered under the Federal Endangered Species Act.<br>FT = Listed as threatened under the Federal Endangered Species Act.<br>California: | | California Rare Plant Rank (CRPR):<br>1B = Plants Rare, Threatened, or Endangered in California and Elsewhere | Potential Occurrence explanations:<br>Moderate Potential. The CNDDB records the occurrence of the species outside of the San Carlos SOI, but within a 5-mile radius of the SOI and there is at least some |

| Table 4.3-2: Special-Status Species with the Potential to Occur in the San Carlos SOI[1] | | | |
|---|---|---|---|
| **Species** | **Status** | **Habitat** | **Potential to Occur in San Carlos SOI** |
| SE = Listed as endangered under the California Endangered Species Act.<br>ST = Listed as threatened under the California Endangered Species Act.<br>CSSC = Listed as a species of special concern in California.<br>CFP = Listed as fully protected in California<br>CNDDB = Species tracked by the CNDDB | | 2 = Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere<br>0.1- Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat<br>0.2- Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat) | suitable habitat within the San Carlos SOI.<br><u>High Potential:</u> There are CNDDB records of the species in the San Carlos SOI, but not within the past ten years.<br><u>Present:</u> There are recent CNDDB records (within ten years) of the species in the San Carlos SOI. |

Sources: San Carlos General Plan, 2009; CNDDB, 2021

In addition to the special-status species included in Table 4.3-2 above, several other special-status species are known to occur near the San Carlos SOI to the east on Bair Island and surrounding sloughs and coastal marsh, including:

- Great blue heron, *Ardea Herodias* (nesting rookeries), CNDDB
- Short-eared owl, *Asio flammeus*, CSSC
- Western snowy plover, *Charadrius nivosus nivosus*, FT, CSSC
- Point Reyes salty bird's beak, *Chloropyron maritimum ssp. palustre*, CRPR 1B.2
- Northern harrier, *Circus hudsonius*, CSSC
- California black rail, *Laterallus jamaicensis coturniculus*, ST
- Alameda song sparrow, *Melospiza melodia pusillula*, CSSC
- California Ridgeway's rail, *Rallus obsoletus obsoletus*, FE, SE, CFP
- Salt-marsh harvest mouse, *Reithrodontomys raviventris*, FE, SE, CFP
- Salt-marsh wandering shrew, *Sorex vagrans halicoetes*, CSSC
- California least tern, *Sternula antillarum browni*, FE, SE, CFP

There is no suitable coastal marsh habitat for these species within the City of San Carlos or its SOI.

Additional special-status species occur near the San Carlos SOI on the western side in Edgewood County Park, as follows:

- San Mateo thornmint, *Acanthomintha duttonii*, FE, SE, CRPR 1B.1
- Kings Mountain manzanita, *Arctostaphylos regismontana*, CRPR 1B.2
- Edgewood blind harvestman, *Calicina minor*, CNDDB
- Fountain thistle, *Cirsium fontinale var. fontinales*, FE, SE, CRPR 1B.1
- Bay Checkerspot butterfly, *Euphydryas editha bayensis*, FT
- Fragrant fritillary, *Fritillaria liliacea*, CRPR 1B.2
- Marin western flax, *Hesperolinon congestum*, FT, ST, CRPR 1B.1

- Crystal Springs lessingia, *Lessingia arachnoidea*, CRPR 1B.2
- Edgewood Park micro-blind harvestman, *Microcina edgewoodensis*, CNDDB
- White-rayed pentachaeta, *Pentachaeta bellidiflora*, FE, SE, CRPR 1B.1

These species require serpentine soils, high elevations, or other habitat conditions not present within the City of San Carlos or its SOI.

### Watersheds and Riparian Corridors

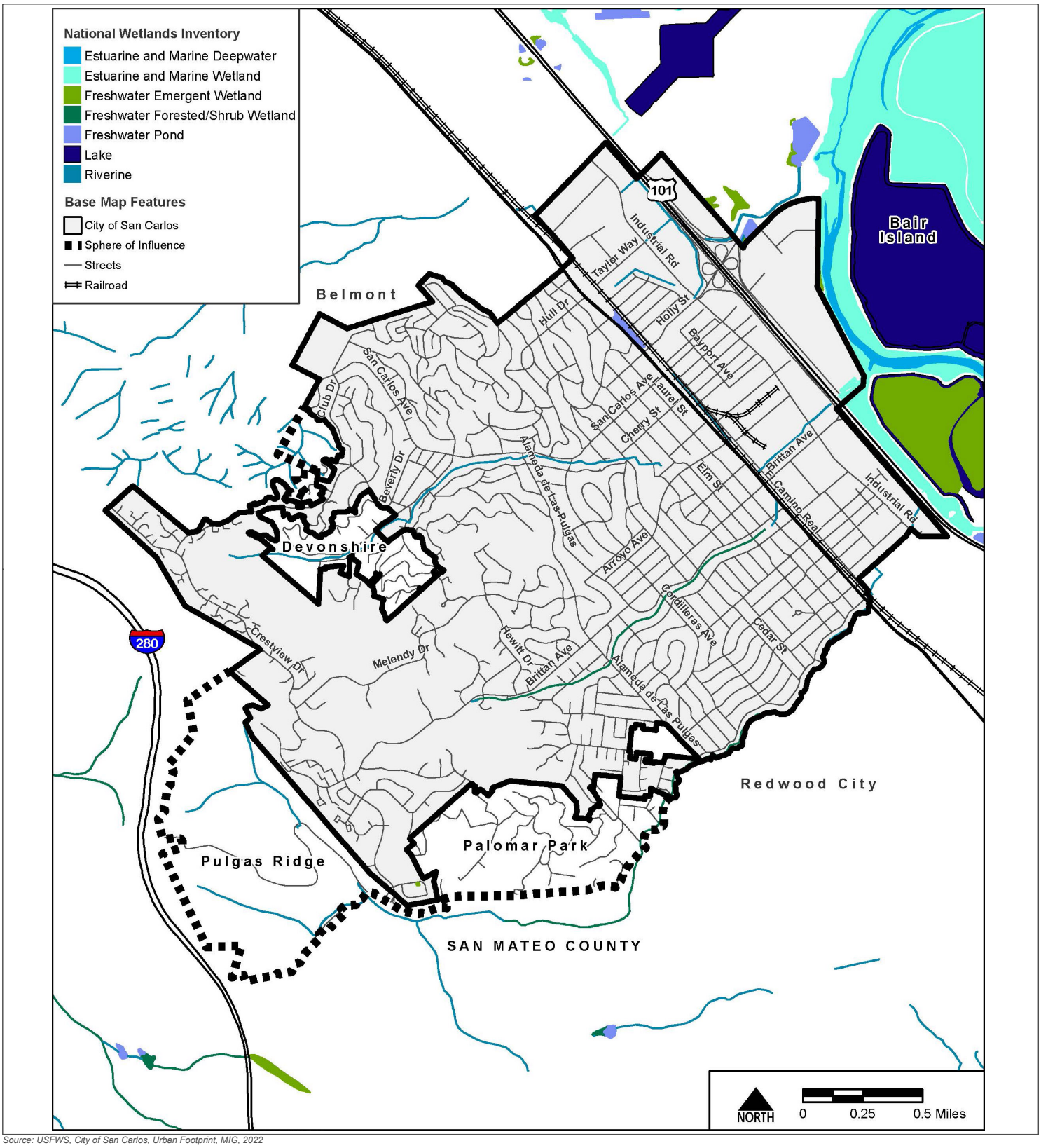
Natural drainage in San Carlos is divided into two main watersheds: Pulgas Creek and Cordilleras Creek. Within the watersheds are Pulgas, Brittan, Belmont, and Cordilleras Creeks, which are the main drainage ways through San Carlos emptying into San Francisco Bay. Salt and brackish marshes are found near the terminus of each of the creeks east of Highway 101. The upper portions of these watersheds are generally undeveloped, the middle sections are primarily residential, and the eastern portions are typically commercial and industrial.

The four creeks in San Carlos are shown in Table 4.3-2. Belmont Creek is located at the northern San Carlos boundary in the East Side area. East of El Camino Real and the Caltrain tracks, the city boundary between the City of San Carlos to the south and the City of Belmont to the north runs down the middle of the creek until the creek reaches the western edge of Shoreway Road and the city boundary turns south. Belmont Creek flows into Belmont Slough and O'Neill Slough. Pulgas and Brittan Creeks are the two main creeks within the City of San Carlos. The creeks have mostly unhardened channels in the upper reaches and hardened channels in the lower flatlands, where Brittan Creek joins Pulgas Creek via an underground conduit (paralleling El Camino Real). Following the confluence of Pulgas Creek and Brittan Creeks, the combined flow drains into Smith Slough south of Bair Island. Cordilleras Creek, the longest of the four creeks, defines the southern boundary of San Carlos, which is shared with Redwood City. Cordilleras Creek, like the combined Pulgas/Brittan Creek, also flows into San Francisco Bay via Smith Slough. Similar to Pulgas and Brittan Creeks, the upper reaches of the creek are mostly unhardened with hardened channels in the lower flatlands.

The creeks discussed above are "losing creeks," meaning they are not recharged by groundwater. Consequently, they are intermittent and generally flow during the winter wet-weather season and from irrigation runoff during the dry months.

### Wildlife Movement and Nursery Sites

San Carlos is mostly developed with roads and buildings and therefore wildlife movement opportunity is generally limited within the City. Reptiles and amphibians, birds, and mammals adapted to urban areas may move locally through the City, but there are no established wildlife corridors and the movement of large mammals and species sensitive to human disturbance is very limited. Creeks within the City may provide movement opportunities for aquatic species, but road culverts may constitute at least partial movement barriers, and the creeks are generally surrounded




Source: USFWS, City of San Carlos, Urban Footprint, MIG, 2022

**Figure 4.3-2** Wetlands and Waterbodies

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by development which limits movement in surrounding upland area (for amphibians and reptiles). Many of the City's creeks are intermittent which could also limit the movement of aquatic species.

There are no known wildlife nursery sites in San Carlos, such as colonial bird nesting sites or anadromous fish spawning streams.

### 4.3.2 Regulatory Setting

#### Federal

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973, as amended, provides the regulatory framework for the protection of plant and animal species (and their associated critical habitats), which are formally listed, proposed for listing, or candidates for listing as endangered or threatened under FESA. FESA has the following four primary components: (1) provisions for listing species, (2) requirements for consultation with the United States Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries), (3) prohibitions against "taking" (i.e., harassing, harming, hunting, shooting, wounding, killing, trapping, capturing, or collecting, or attempting to engage in any such conduct) of listed species, and (4) provisions for permits that allow incidental "take". FESA also discusses recovery plans and the designation of critical habitat for listed species.

Both the USFWS and NOAA Fisheries share the responsibility for administration of FESA. Section 7 requires federal agencies, in consultation with, and with the assistance of the USFWS or NOAA Fisheries, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. Non-federal agencies and private entities can seek authorization for take of federally listed species under Section 10 of FESA, which requires the preparation of a habitat conservation plan (HCP).

U.S. Migratory Bird Treaty Act

The U.S. Migratory Bird Treaty Act (MBTA; 16 USC §§ 703 et seq., Title 50 Code of Federal Regulations [CFR] Part 10) states it is "unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill; attempt to take, capture or kill; possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export any migratory bird, any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or in part, of any such bird or any part, nest or egg thereof…" In short, under MBTA it is illegal to disturb a nest that is in active use, since this could result in killing a bird, destroying a nest, or destroying an egg. The USFWS enforces MBTA. The MBTA does not protect some birds that are non-native or human-introduced or that belong to families that are not covered by any of the conventions implemented by MBTA.

Clean Water Act

The Clean Water Act (CWA) is the primary federal law regulating water quality. The implementation of the CWA is the responsibility of the U.S. Environmental Protection Agency (EPA). However, the EPA depends on other agencies, such as the individual states and the United States Army Corps of Engineers (USACE), to assist in implementing the CWA. The objective of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 404 and 401 of the CWA apply to activities that would impact waters of the U.S. The USACE enforces Section 404 of the CWA and the California State Water Resources Control Board (SWRCB) enforces Section 401. Section 402 of the CWA authorizes the EPA to regulate water quality in California by controlling the discharge of pollutants to water bodies from point and non-point sources.

**State**

California Environmental Quality Act (CEQA) Guidelines

CEQA Guidelines Section 15380 defines endangered, threatened, and rare species for purposes of CEQA and clarifies that CEQA review extends to other species that are not formally listed under the state or federal Endangered Species acts but that meet specified criteria. The state maintains a list of sensitive, or "special-status," biological resources, including those listed by the state or federal government or the California Native Plant Society (CNPS) as endangered, threatened, rare or of special concern due to declining populations. During CEQA analysis for a proposed project, the CNDDB is usually consulted. CNDDB relies on information provided by the California Department of Fish and Wildlife (CDFW), USFWS, and CNPS, among others. Under CEQA, the lists kept by these and any other widely recognized organizations are considered when determining the impact of a project.

California Endangered Species Act

The California Endangered Species Act (CESA; Fish and Game Code 2050 et seq.) generally parallels FESA. It establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. Section 2080 of the California Fish and Game Code prohibits the take, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or by the regulations. "Take" is defined in Section 86 of the California Fish and Game Code as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." This definition differs from the definition of "take" under FESA. CESA is administered by CDFW. CESA allows for take incidental to otherwise lawful projects but mandates that State lead agencies consult with the CDFW to ensure that a project would not jeopardize the continued existence of threatened or endangered species.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) was created in 1977 with the intent to preserve, protect, and enhance rare and endangered plants in California (California Fish and Game Code sections

1900 to 1913). The NPPA is administered by CDFW, which has the authority to designate native plants as endangered or rare and to protect them from "take." CDFW maintains a list of plant species that have been officially classified as endangered, threatened, or rare. These special-status plants have special protection under California law and projects that directly impact them may not qualify for a categorical exemption under CEQA guidelines.

Other Sensitive Plants – California Native Plant Society.

The CNPS is a non-profit plant conservation organization that publishes and maintains an Inventory of Rare and Endangered Vascular Plants of California in both hard copy and electronic version (http://www.rareplants.cnps.org/).

The Inventory assigns plants to the following categories:

1A. Presumed extinct in California;

1B. Rare, threatened, or endangered in California and elsewhere;

2. Rare, threatened, or endangered in California, but more common elsewhere;
3. Plants for which more information is needed – A review list; and
4. Plants of limited distribution – A watch list.

Additional endangerment codes are assigned to each taxon as follows:

1. Seriously endangered in California (over 80% of occurrences threatened/high degree of immediacy of threat).
2. Fairly endangered in California (20-80% occurrences threatened).
3. Not very endangered in California (<20% of occurrences threatened or no current threats known).

Plants that are Rank 1A, 1B, and 2 of the CNPS Inventory consist of plants that may qualify for listing by the CDFW, as well as other state agencies (e.g., California Department of Forestry and Fire Protection). As part of the CEQA process, such species should be fully considered, as they meet the definition of threatened or endangered under the NPPA and Sections 2062 and 2067 of the California Fish and Game Code. California Rare Plant Rank 3 and 4 species are considered to be plants about which more information is needed or are uncommon enough that their status should be regularly monitored. Such plants may be eligible or may become eligible for state listing, and CNPS and CDFW recommend that these species be evaluated for consideration during the preparation of CEQA documents.

Fully Protected Species and Species of Special Concern

The classification of California fully protected (CFP) species was the CDFW's initial effort to identify and provide additional protection to those animals that were rare or faced possible

extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The Fish and Game Code sections (§5515 for fish, §5050 for amphibian and reptiles, §3511 for birds, §4700 for mammals) deal with CFP species and state that these species "…may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species" (CDFW Fish and Game Commission 1998). "Take" of these species may be authorized for necessary scientific research. This language makes the CFP designation the strongest and most restrictive regarding the "take" of these species. In 2003, the code sections dealing with CFP species were amended to allow the CDFW to authorize take resulting from recovery activities for state-listed species.

California species of special concern (CSSC) are broadly defined as animals not listed under FESA or CESA, but which are nonetheless of concern to CDFW because they are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by CDFW, land managers, consulting biologists, and others, and is intended to focus attention on the species to help avert the need for costly listing under FESA and CESA, and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them. Although these species generally have no special legal status, they are given special consideration under CEQA during project review.

Nesting Birds

Nesting birds, including raptors, are protected under California Fish and Game Code Section 3503, which reads, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." In addition, under California Fish and Game Code Section 3503.5, "it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Passerines and non-passerine land birds are further protected under California Fish and Game Code 3513. As such, CDFW typically recommends surveys for nesting birds that could potentially be directly (e.g., actual removal of trees/vegetation) or indirectly (e.g., noise disturbance) impacted by project-related activities. Disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by CDFW.

Non-Game Mammals

Sections 4150-4155 of the California Fish and Game Code protects non-game mammals, including bats. Section 4150 states "A mammal occurring naturally in California that is not a game mammal, fully protected mammal, or fur-bearing mammal is a nongame mammal. A non-game mammal

may not be taken or possessed except as provided in this code or in accordance with regulations adopted by the commission." The non-game mammals that may be taken or possessed are primarily those that cause crop or property damage. Bats are classified as a non-game mammal and are protected under California Fish and Game Code, in addition to being protected if they are a listed species (e.g., CSSC, CFP, state or federal threatened, or state or federal endangered).

Sensitive Vegetation Communities

Sensitive vegetation communities are natural communities and habitats that are either unique in constituent components, of relatively limited distribution in the region, or are of particularly high wildlife value. These communities may or may not necessarily contain special-status species. Sensitive natural communities are usually identified in local or regional plans, policies, or regulations, or by the CDFW (i.e., CNDDB) or the USFWS. The CNDDB identifies a number of natural communities as rare, which are given the highest inventory priority (Holland 1986; CDFW 2016). Impacts to sensitive natural communities and habitats must be considered and evaluated under CEQA (CCR: Title 14, Div. 6, Chap. 3, Appendix G).

California Fish and Game Code Sections 1600-1607

Sections 1600-1607 of the California Fish and Game Code require that a Notification of Lake or Streambed Alteration application be submitted to CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." CDFW reviews the proposed actions in the application and, if necessary, prepares a Lake or Streambed Alteration Agreement (LSAA or SAA), that includes measures to protect affected fish and wildlife resources.

Porter-Cologne Water Quality Control Act

The intent of the Porter-Cologne Water Quality Control Act (Porter-Cologne) is to protect water quality and the beneficial uses of water, and it applies to both surface and ground water. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the Regional Water Quality Control Boards (RWQCBs) develop basin plans, which identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of both statewide and basin plans. Waters regulated under Porter-Cologne, referred to as "waters of the State," include isolated waters that are not regulated by the USACE. Projects that require a USACE permit, or fall under other federal jurisdiction, and have the potential to impact waters of the State are required to comply with the terms of the Water Quality Certification Program. If a proposed project does not require a federal license or permit, any person discharging, or proposing to discharge, waste (e.g., soil) to waters of the State must file a Notice of Intent (NOI) or a Report of Waste Discharge and receive either waste discharge requirements (WDRs) or a waiver to WDRs before beginning the discharge.

## Local

City of San Carlos 2030 General Plan

The Environmental Management Element in the City's General Plan contains the following goals and policies to protect biological resources:

*Goal EM-1*: Protect natural habitat and other biological resources.

*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-1.3*: Work to manage or eliminate nonnative invasive species from City-owned property and open space.

*Policy EM-1.4:* Protect and preserve the circadian cycle (the cycle of night and day) by limiting sources of light during nighttime hours.

*Policy EM-1.5*: Promote the preservation of native species, habitat and vegetation types and overall natural diversity.

*Goal EM-2*: Promote healthy streams and riparian corridors.

*Policy EM-2.1:* Preserve and enhance riparian areas.

*Policy EM-2.2:* Continue to enforce the City's Riparian Ordinance for all four of the City's creeks (Pulgas, Brittan, Cordilleras and Belmont) and their tributaries.

*Policy EM-2.3:* Carefully evaluate the cumulative and compounding impacts of incremental creek encroachments.

*Policy EM-2.4:* Restore culverted or buried channels to their natural state wherever feasible.

*Policy EM-2.5:* Promote the establishment of native vegetation and the removal of nonnative invasive plants in riparian areas.

*Policy EM-2.6:* Encourage property owners to replace fallen trees along waterways to maintain an upper canopy of vegetation. The species shall be as approved by the City arborist. Encourage use of trees native to the area.

*Policy EM-2.7:* Retain Pulgas, Brittan, Cordilleras and Belmont Creek channels and their 100-year floodplains wherever possible as natural open space areas. These areas are to function as storm drainage facilities and as open space greenbelts to support natural habitat.

*Policy EM-2.8:* Participate and help coordinate with neighboring jurisdictions' watershed management efforts.

*Goal EM-3*: Enhance the urban forest.

*Policy EM-3.1*: Maintain and expand the urban canopy with special emphasis on protection of heritage trees.

*Policy EM-3.2*: Review and amend the Zoning Ordinance as needed to identify barriers to the effective enhancement of the urban forest and the protection of heritage trees.

*Policy EM-3.3*: Assist community groups with tree planning efforts.

City of San Carlos Tree Ordinance

Section 18.18.070(B) of the San Carlos Municipal Code defines a "Protected tree" to be any significant or heritage tree, described below. Section 18.18.070 (D) of the San Carlos Municipal Code states no protected trees can be removed, pruned, or otherwise materially altered without a permit. Trimming of a protected tree is allowed without such a permit. Section 18.18.070 (D) also contains requirements to avoid construction-related impacts to retained protected trees, such as special measures for any construction activity within the dripline of a protected tree.

*Heritage Tree* - "Heritage tree" means any:

a. Indigenous tree whose size, as measured at fifty-four inches (54") above natural grade (unless otherwise indicated), is defined below:

    i. *Aesculus californica* (buckeye) with a single stem or multiple stems touching each other at fifty-four inches (54") above natural grade and measuring nine inches (9") in diameter or greater.

    ii. *Arbutus meniesii* (madrone) with a single stem or multiple stems touching each other at fifty-four inches (54") above natural grade and measuring nine inches (9") in diameter or greater.

    iii. *Quercus agrifolia* (coast live oak) measuring nine inches (9") in diameter or greater.

    iv. *Quercus lobata* (valley oak) measuring nine inches (9") in diameter or greater.

    v. *Quercus douglassii* (blue oak) measuring nine inches (9") in diameter or greater.

    vi. *Quercus wislizneii* (interior live oak) measuring nine inches (9") in diameter or greater.

    vii. *Sequoia sempervirens* (redwood) measuring fifteen inches (15") in diameter or greater.

viii. *Umbrellularia californica* (California bay laurel) with a single stem or multiple stems touching each other at fifty-four inches (54") above natural grade and measuring eleven inches (11") in diameter or greater.

| Heritage Tree Species | Minimum Protected Diameter |
|---|---|
| Aesculus californica (buckeye) | 9" diameter or greater |
| Arbutus menziesii (madrone) | 9" diameter or greater |
| Quercus agrifolia (coast live oak) | 9" diameter or greater |
| Quercus lobata (valley oak) | 9" diameter or greater |
| Quercus douglassii (blue oak) | 9" diameter or greater |
| Quercus wislizneii (interior live oak) | 9" diameter or greater |
| Sequoia sempervirens (redwood) | 15" diameter or greater |
| Umbellularia californica (California bay laurel) | 11" diameter or greater |

b. Community of trees;

c. Tree so designated by the City Council, based upon findings that the particular tree is unique and of importance to the public due to its unusual age, appearance, location or other factors.

*Significant Tree* – "Significant tree" means any tree that is eleven inches (11") in diameter (or more), outside of bark, measured at fifty-four inches (54") above natural grade. The following trees shall not be classified as significant or heritage trees regardless of size:

a. Bailey, Green or Black Acacia: *A. baileyana, A. dedurrens* or *A. melanoxylon*;

b. Tree of Heaven: *Ailianthus altissima*;

c. Fruit trees of any kind;

d. Monterey Pine: *Pinus radiata*;

e. Eucalyptus genera;

f. Monocot trees including palms and palm relatives.

San Carlos Stream Development and Maintenance Ordinance

Chapter 18.14 of the City of San Carlos Municipal Code provides protection for waterways by establishing regulations for development adjacent to creeks. Section 18.14.030 Stream setback requirements requires all new development to be set back a minimum twenty-five feet from the top of bank line or such other distance as specified by the Planning Commission. Additionally, 18.14.040 Dedication of drainage and scenic easements states the City may, as a condition of a development permit or subdivision, require the dedication of a drainage and/or scenic easement over and maintenance, in its natural condition or existing state, of each stream channel within the top of each bank or such other distance as specified by the review authority to avoid excavation, filling, development or construction that could adversely affect the public health and safety by aggravating drainage flows during flooding conditions or interfering with the streamside habitat. (Ord. 1438 § 4 (Exh. A (part)), 2011).

Chapter 18.14 identifies the following activities as allowed within 25 feet of a creek related to storm drainage, erosion control, and streambank stability improvements that comply with the following standards and have been approved, as required by law, by the governmental agencies having jurisdiction over them:

- Vegetation shall not be cut or removed except for normal maintenance, to facilitate drainage, prevent flooding, and to permit adequate flow of water. Removal of vegetation shall be limited to the minimum amount necessary, with special care to avoid removal of vegetation immediately adjacent to the banks of the stream.
- Fill, grading, or excavating for purposes of low intensity, passive recreation or conservation uses may be allowed with conditional use permit approval. Such activities shall be kept to the minimum amount necessary to accomplish its aims and designed and executed so as to minimize erosion, sedimentation or runoff in or into the stream channel.
- Minor restoration or maintenance necessary to prevent flooding, reduce siltation, remove debris, and minor weed abatement activity necessary to protect life or property or otherwise provide for the public health and safety may be approved by the City.

### 4.3.3 Thresholds of Significance

Potential impacts to biological resources were determined in accordance with Appendix G of the CEQA Guidelines. Impacts would be considered potentially significant if the proposed project will:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

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

f) Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan.

### 4.3.4 Impacts and Mitigation Measures

***Impact BIO-1: The project would not have a significant adverse effect, either directly or through habitat modifications, on any species listed as candidate, sensitive or special status species in local or regional plans, policies, or regulations by the California Department of Fish and Game or U. S. Fish and Wildlife. Implementation of Mitigation Measures BIO-1 through BIO-3 would reduce potential impacts to a less than significant level (Less Than Significant with Mitigation Incorporated)***

**Updated Housing Element**

Development of new housing sites proposed in the San Carlos updated Housing Element could impact special-status species, nesting birds, and/or roosting bats, as described below. No significant impacts would occur with implementation of Mitigation Measures BIO-1 through BIO-3.

***Special-Status Species - Less Than Significant with Mitigation Incorporated.*** Most of the San Carlos 6th cycle sites for housing development are in developed areas along El Camino Real or the downtown area of the City. There is no habitat for special-status species in developed areas, and therefore new housing in developed areas would not impact special-status species.

There are a small number of 6$^{th}$ cycle housing sites on or adjacent to natural habitat, such as riparian corridors or oak woodland. Housing sites on or adjacent to natural vegetation or aquatic habitat (i.e., streams, wetlands, marsh, etc.) have the potential to support special-status species with the potential to occur in San Carlos (see Table 4.3-1 in Section 4.3.1 Existing Setting above). As such,

new housing on sites on or adjacent to natural habitat could cause direct impacts to special-status species, such as mortality or injury during construction and/or loss of habitat due to housing development. Indirect impacts due to noise and disturbance from construction activities and later housing occupancy could also occur, resulting in stress or mortality to special-status species, local extirpation (plants), or causing them to go elsewhere (animals). Chapter 18.14 of the City of San Carlos Municipal Code requires a 25-foot creek setback for any housing adjacent to a creek. Mitigation Measure BIO-1 would further prevent significant impacts to special-status species from new housing on sites with natural habitat.

***Nesting Birds - Less Than Significant with Mitigation Incorporated.*** Even developed areas in San Carlos contain trees, other vegetation, and manmade structures that provide habitat for nesting birds. All native birds and their nests are protected by the federal Migratory Bird Treaty Act and California Fish and Game Code. No significant long-term impacts to nesting birds are expected from the proposed updated Housing Element. Loss of nesting habitat due to construction-related removal of trees and other vegetation would occur only in small sites in urban areas and would be largely offset by the San Carlos Tree Ordinance (Section 18.18.070 (D)) and landscaping for the new housing.

However, short-term impacts to nesting birds could occur during construction of new housing. If construction of new housing occurs during the bird nesting season, it could directly impact nesting birds through the accidental removal of nests during tree removal, demolition, and site preparation activities. In addition, indirect impacts from construction noise and activity could result in nest failure or abandonment. Mitigation Measure BIO-2 would prevent significant impacts to nesting birds during construction of new housing.

***Roosting Bats - Less Than Significant with Mitigation Incorporated.*** Trees and vacant buildings can provide roosting habitat for bats, particularly near creeks or other freshwater habitat and away from significant human activity. Bats are protected by the California Fish and Game Code as nongame mammals. No significant long-term impacts to roosting bats are expected from the proposed updated Housing Element. The San Carlos Tree Ordinance (Municipal Code Section 18.18.070 (D)) and Stream Development Maintenance Ordinance (Municipal Code Section 18.14.010) would help to protect bat roosting habitat in San Carlos. In addition, most trees and structures that would be removed for new housing would be in developed areas and would likely provide little to no suitable bat roosting habitat. Mitigation Measure BIO-1 would prevent significant impacts to roosting bat habitat in areas with natural vegetation or aquatic habitat.

Short-term impacts to roosting bats could occur during construction of new housing. Removal of trees or structures for new housing could directly impact roosting bats by accidentally killing them or forcibly evicting them in daylight hours, resulting is severe stress or mortality. Indirect impacts could also occur if construction noise and activity occur adjacent to roosting bats. Special-status bats and maternity roosts are particularly sensitive to disturbance. Mitigation Measure BIO-3 would prevent significant impacts to roosting bats during construction of new housing.

### Updated Environmental Safety and Community Services Element

Potential impacts on special-status species from the goals, policies, and actions in the proposed Environmental Safety and Community Services Element are discussed below. The impact analysis is organized by hazard type and associated goals, policies, and actions, in the same order they appear in the updated Environmental Safety and Community Services Element.

***Geologic and Seismic Hazards Goals, Policies, and Actions - No Impact.***

*Goal ESCS-1: Reduce the potential loss of life, injury, and property damage due to seismic and geologic hazards.*

Goal ESCS-1 and associated policies and actions relate to identifying and mitigating geologic hazards within San Carlos, development project sites, and existing buildings. None of the goals, policies, or actions related to geologic and seismic hazards would impact special-status species or other biological resources.

***Flood Hazards Goals, Policies, and Actions - Less Than Significant Impact.***

*Goal ESCS-2: Reduce hazards associated with flooding, inundation, and sea level rise.*

Some of the flood hazards policies and actions would have a beneficial effect on special-status species and other biological resources, including the following:

- Policy ESCS-2.2: Prioritizes maintenance and restoration of healthy riparian corridors on creeks in San Carlos.
- Policy ESCS-2.3: Maintains the Stream Development and Maintenance Ordinance.
- Policy ESCS-2.4: Minimizes impervious surface areas.
- Policy ESCS-2.6: Promotes training City staff on relationship between watershed health and flood hazards.
- Policy ESCS-2.12: Incorporates storm water drainage systems into development projects, which prevents polluted runoff water from entering creeks.
- Action ESCS-2.1: Participation in a regional Watershed Management Plan than includes creek restoration.
- Action ESCS-2.2: Strengthens Stream Development and Maintenance Ordinance.
- Actions ESCS-2.4 & 2.5: Encourages property owners adjacent to creeks to use natural or bio-engineering methods to stabilize creek banks.

Creek restoration and creek bank stabilization projects would require project-specific evaluation under CEQA and would also likely require a Streambed Alteration Agreement with CDFW under Section 1600 of the California Fish and Game Code, and possibly permits from the USACE and RWQCB under Sections 404 and 401 of the Clean Water Act.

Any future improvements to the City's storm drain infrastructure (see Policy ESCS-2.12) would be evaluated under CEQA on a project-specific basis, but are not generally expected to

significantly impact biological resources. All remaining flood hazard policies and actions relate to planning and coordination with other agencies and would have no impact on biological resources.

***Wildfire Hazards - Less Than Significant with Mitigation Incorporated.***

*Goal 1: A resilient San Carlos is well prepared to minimize risks associated with wildfire.*

*Goal 2: San Carlos proactively prevents wildfires and protects life, property, and infrastructure from urban and wildfire impacts.*

Wildfire hazard goals and associated policies and actions are designed to reduce risks of wildfire to people and the built environment in San Carlos. Many of the policies and actions relate to planning for wildfires, evacuation routes, fire safe building practices, and public outreach and do not impact biological resources. The wildfire Land Use Planning Policies are largely beneficial to biological resources by encouraging the preservation of undeveloped ridgelines, encouraging infill and clustered development, and discouraging development in high fire hazard areas where natural vegetation is concentrated. Agency Coordination Action 3 would have beneficial effects to special-status species and sensitive habitats because it encourages native plants, vegetation thinning which reduces the risk of hotter fires killing native vegetation, and fuel breaks that don't damage native habitat.

However, vegetation thinning, and creation of fuel breaks has the potential to temporarily impact special-status species, nesting birds, and/or roosting bats directly by removing rare plants, woodrat houses, bird nests, or bat roosts, or indirectly by disturbing special-status species, nesting birds and/or roosting bats in the work area. Mitigation Measures BIO-1 through BIO-3 would prevent short-term impacts to special-status species, nesting birds and roosting bats from vegetation thinning and creation of fuel breaks. No significant long-term impacts to special-status species, nesting birds or roosting bats are expected from these activities, as no largescale conversion or removal of native vegetation would occur and habitat for these species would remain largely intact. Any future construction of new fire service facilities, emergency vehicle access routes, or water infrastructure for firefighting purposes would require project specific CEQA review, but such projects are not generally expected to significantly impact biological resources.

***Hazardous Materials and Waste Goals, Policies, and Actions - Less Than Significant Impact.***

*Goal ESCS-5: Protect the community from the harmful effects of hazardous materials.*

Goal ESCS-5 and associated policies and actions related to hazardous materials and waste have largely beneficial effects to special-status species and other biological resources as they encourage proper storage, containment, disposal, and remediation of hazardous materials and waste. This prevents hazardous materials from being released into the environment, where they could cause harm to special-status species and other biological resources.

***Airport Operations Goals, Policies, and Actions - No Impact.***

*Goal ESCS-6: Minimize risks associated with operations at the San Carlos Airport.*

This section of the updated Safety Element contains Goals, Policies, and Actions regarding land use compatibility in the vicinity of the San Carlos Airport. There would be no impacts to biological resources from this goal and associated policies and actions.

***Emergency and Disaster Preparedness Goals, Policies, and Actions - No Impact.***

*Goal ESCS-7: Continue effective emergency response procedures to ensure public safety in the event of natural or man-made disasters.*

Goal ESCS-7 and associated policies and actions relate to planning, coordination, and public education to prepare for emergencies and disasters. There would be no impacts to biological resources from this goal and associated policies and actions.

***Climate Change Resilience Goals, Policies, and Actions - Less Than Significant Impact.***

*Goal ESCS-8: A community that is resilient against changing climate conditions.*

Goal ESCS-8 and associated policies and actions are mostly planning, coordination, and community outreach for climate change resilience. This goal and associated policies and actions would not generally impact special-status species or other biological resources. Installation of additional or upgraded communications facilities (see Action ESCS-8.5b), and major building retrofits (see Policy ESCS-8.2 and Action ESCS-8.2b), would require project-specific evaluation under CEQA, but are not generally expected to significantly impact biological resources.

*Goal ESCS-9: The City of San Carlos has a sustainable and resilient water supply despite the potential for more frequent and severe drought conditions.*

Goal ESCS-9 and associated policies and actions relate to increasing water storage capacity and conserving water. This goal and associated policies and actions are not generally expected to impact special-status species or other biological resources. Any future projects to increase water storage capacity (see Policy ESCS-9.1 and Action ESCS-9.1a), upgrade waste and wastewater systems (see Action ESCS-9.1b) or extend recycled water pipes (see Action ESCS-9.2e) would require project-specific evaluation under CEQA but are not generally expected to significantly impact biological resources. Policies and actions to conserve water could potentially benefit aquatic special-status species and their habitat by conserving more water for creeks and natural waterbodies.

*Goal ESCS-10: Create a community that is resilient during and after extreme heat and severe weather events.*

Goal ESCS-10 and associated policies and actions relate to provision of public information and emergency shelters or cooling hubs, and upgrades to infrastructure for heat resilience. This goal and associated policies and actions are not generally expected to impact special-status species or other biological resources. Any future projects to construct emergency shelters or cooling centers (see Policy ESCS-10.2 and Actions ESCS-10.1a and 10.1b) or improve utility or transportation infrastructure (see Policy ESCS-10.4 and Action ESCS-10.4b) would require project-specific evaluation under CEQA, but are not generally expected to significantly impact biological resources.

*Goal ESCS-11: Protect the community against sea level rise and safeguard the natural and built environment from inundation due to rising sea levels.*

Goal ESCS-11 and associated policies and actions pertain to planning for and adaptation to sea level rise. Policy ESCS-11.2 and Actions ESCS-11.2a through 11.2c would have a beneficial effect on special-status species and other biological resources near the Bayshore because they promote nature-based approaches to sea level rise adaptation such as bioswales, restored natural systems, and living shorelines. Relocation of critical facilities outside of sea level rise zones (see Policy ESCS-11.3 and Action ESCS-11.3a) would require project-specific evaluation under CEQA but is not expected to significantly impact biological resources. The remaining policies and actions involve planning and coordination and would not impact biological resources.

*Goal ESCS-12: Protect the community against rising groundwater levels caused by sea level rise.*

Goal ESCS-12 and associated policies and actions involve planning and updates to the Municipal Code related to rising groundwater levels caused by sea level rise. This goal and associated policies and actions would not impact special-status species or other biological resources.

***Public Services Goals, Policies, and Actions- Less Than Significant Impact***

*Goal ESCS-13: Ensure adequate public services and high quality design of public facilities to make San Carlos a safe, enjoyable, and quality community in which to live, work and shop.*

*Goal ESCS-14: Provide educational opportunities for all ages.*

*Goal ESCS-15: Establish San Carlos' position as a community cultural and arts center.*

*Goal ESCS-16: Promote community building activities in San Carlos.*

Goals ESCS-12 through ESCS-16 and associated policies and actions relate to provision of public facilities and services in San Carlos. Policy ESCS-13.3 has a beneficial effect on biological resources because it encourages the use of native plants and trees in landscaping. Redevelopment of school sites (see Policy ESCS-13.5), construction of new public facilities (see Policy ESCS-13.9 and Action ESCS-13.2), construction of new schools (see Actions ESCS-14.1 and 14.2), or a new performing art center (see Actions ESCS-15.4 and 15.5) would require project-specific

evaluation under CEQA, but are not generally expected to significantly impact biological resources because they would likely be constructed in developed areas that lack special-status species habitat and other sensitive habitats. The remaining public services policies and actions involve planning, coordination, and administration and would have no impact on biological resources.

**Mitigation Measures.** The following mitigation measures would avoid significant impacts to special-status species from the proposed updated Housing Element and Environmental Safety and Public Services Element.

**Mitigation Measure BIO-1. Project-Specific Biological Resources Evaluation:** Prior to construction of new housing on sites that are on or adjacent to natural vegetation or aquatic habitat, and/or vegetation thinning or creation of fuel breaks, a project-specific biological resources evaluation shall be conducted by a qualified biologist. The biologist shall utilize relevant resources such as the California Natural Diversity Database (CNDDB) and the National Wetlands Inventory (NWI) as well as a field survey covering the project site and adjacent areas. A biological resources report or memo shall be prepared documenting the results of the evaluation, to a level of detail appropriate for the project. At a minimum, the report or memo shall include a description of existing vegetation, habitats, and aquatic features on the project site; an evaluation of special-status species and sensitive habitats that could occur on the site; and suitable mitigation measures as needed to avoid project-related impacts to biological resources. Mitigation measures from the biological resources evaluation shall be incorporated into the CEQA document for the project and/or adopted as project conditions of approval.

**Applies To:** New housing development on sites that are on or adjacent to natural vegetation or aquatic habitat, vegetation thinning and creation of fuel breaks.

**Mitigation Measure BIO-2. Nesting Birds:** To avoid impacts to nesting birds and avoid potential violation of state and federal laws pertaining to birds, all construction of new housing (including but not limited to mobilization and staging, clearing, grubbing, tree removal, fence installation, demolition, and grading) and/or vegetation thinning and creation of fuel breaks should occur outside the avian nesting season (that is, prior to February 1 or after September 15) if possible. If construction and/or vegetation thinning or creation of fuel breaks occurs within the avian nesting season (from February 1 to September 15), all suitable habitats located within the project's area of disturbance including staging and storage areas plus a 250-foot (passerines) and 1,000-foot (raptor nests) buffer around these areas shall be thoroughly surveyed, as feasible, for the presence of active nests by a qualified biologist no more than five days before commencement of any site disturbance activities and equipment mobilization. If project activities are delayed by more than five days, an additional nesting bird survey shall be performed. Active nesting is present if a bird is building a nest, sitting in a nest, a nest has eggs or chicks in it, or adults are observed carrying food to the nest. The results of the surveys shall be documented.

If pre-construction nesting bird surveys result in the location of active nests, no site disturbance and mobilization of heavy equipment (including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, fence installation, demolition, and grading), shall take place within 250 feet of non-raptor nests and 1,000 feet of raptor nests, or as determined by a qualified biologist, until the chicks have fledged. Monitoring shall be required to ensure compliance with Migratory Bird Treaty Act (MBTA) and relevant California Fish and Game Code requirements. Monitoring dates and findings shall be documented.

**Applies To:** All housing construction and/or vegetation thinning and creation of fuel breaks during the nesting bird season (February 1 through September 15).

**Mitigation Measure BIO-3a**. **Bat Habitat Assessment:** Prior to removal of trees or structures for housing development or fire hazard reduction, a qualified biologist shall conduct a bat habitat assessment of trees and structures to be removed, as well as surrounding trees and structures. The biologist shall search for large cavities and crevices in trees and structures that could support maternity roosts as well as habitat for special-status bat species. Signs of bats such as guano or the smell of bats shall also be noted. Results of the bat habitat assessment shall be documented.

If no suitable roosting habitat or signs of bats are found, then no further action is required, and the project may proceed as planned. If suitable roosting habitat or signs of bats are found, then Mitigation Measure 3b shall be implemented.

**Mitigation Measure BIO-3b. Dusk Emergence Bat Survey:** If suitable roosting habitat or signs of bats are found in trees or structures to be removed on a new housing site or fire fuel reduction area, a qualified biologist shall conduct a dusk emergence survey for roosting bats within 14 days prior to the removal of the tree(s) or structure(s). The biologist shall monitor all suitable roosting trees and structures at dusk for emerging bats, using acoustic equipment to identify the species. Results of the survey shall be documented.

If no roosting bats are found during the survey, then no further action is required, and the project may proceed as planned. If roosting bats are found during the survey, a disturbance-free buffer zone shall be established around the roost site during the maternity season (April 15-September 15), as determined by a qualified biologist until the maternity season is over. Outside the maternity season, roosting bats may be excluded from the tree(s) or structure(s) prior to tree removal as directed by a qualified biologist. If a special-status bat is found, the roosting site shall be preserved if feasible and CDFW shall be consulted prior to exclusion.

**Applies To:** Any housing project or fuel reduction project that requires removal of trees or structures.

***Impact BIO-2: The project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies,***

***regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. Implementation of Mitigation Measure BIO-1 would reduce potential impacts to a less than significant level. (Less Than Significant with Mitigation Incorporated)***

**Housing Element- Less Than Significant with Mitigation Incorporated.** Most of the San Carlos 6th cycle sites for housing development are in developed areas along El Camino Real that do not have riparian or other sensitive habitats. However, a small number of sites are within or adjacent to riparian habitat (Pulgas Creek, Brittan Creek, or Belmont Creek) or other sensitive habitat. San Carlos Stream Development and Maintenance Ordinance (Municipal Code Section 18.14) prohibits most development within 25 feet of a stream, including housing. In addition, Mitigation Measure BIO-1 requires a project specific biological resources evaluation for sites that are on or adjacent to natural vegetation or aquatic habitat, which would include riparian habitat and other sensitive habitats. The biological resources evaluation would include site-specific mitigation to protect riparian and other sensitive habitat as needed. The proposed updated Housing Element would not significantly impact riparian or other sensitive habitat with compliance with the San Carlos Municipal Code and implementation of Mitigation Measure BIO-1.

**Safety Element - Less Than Significant with Mitigation Incorporated.** Potential impacts to riparian and other sensitive habitats from the proposed updated Safety Element are similar to potential impacts to special-status species; see the detailed analysis in the section above. All potential impacts to riparian and other sensitive habitats would be less than significant except for possibly vegetation thinning and creation of fuel breaks for fire hazard reduction. Vegetation thinning and fuel break creation is not generally expected to occur in riparian areas, which are protected by the San Carlos Stream Development and Maintenance Ordinance (Municipal Code Section 18.14) and generally have lower fire hazards due to the presence of the streams. However, other sensitive habitats such as special-status species habitats could be impacted by fuel reduction activities if such habitat is removed or disturbed during vegetation thinning or removal for fuel breaks. Mitigation Measure BIO-1 would prevent impacts to sensitive habitats from fuel reduction activities.

**Mitigation Measures.** See Mitigation Measure BIO-1 in the previous section.

***Impact BIO-3: The project would not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. Implementation of Mitigation Measure BIO-1 would reduce potential impacts to a less than significant level. (Less Than Significant with Mitigation Incorporated)***

**Updated Housing Element - Less Than Significant with Mitigation Incorporated.** Federally and state protected wetlands in San Carlos are generally limited to marsh habitat and sloughs along the Bayshore at the eastern border of the City. None of the proposed 6$^{th}$ Cycle housing sites are located along the Bayshore where protected wetlands occur. Most of the housing sites are already developed, and the vacant sites are generally small and surrounded by development. Therefore, the sites do not generally contain or support protected wetlands. According to the National

Wetlands Inventory, there is one freshwater pond mapped along El Camino Real northwest of San Carlos Avenue where some housing sites are located (NWI 2022). However, it is clear from recent aerial photos that this area is developed and no freshwater pond is currently present at this location. For these reasons, the proposed updated Housing Element is not expected to impact federally or state protected wetlands.

San Carlos does contain creeks, and in some places, associated riparian habitat. Creeks are also protected by the federal Clean Water Act and the California Porter-Colgne Act, and creeks and riparian habitat are protected by the California Fish and Game Code. San Carlos Stream Development and Maintenance Ordinance (Municipal Code Section 18.14) prohibits most development within 25 feet of a stream, including housing. In addition, Mitigation Measure BIO-1 requires a project specific biological resources evaluation for sites that are on or adjacent to natural vegetation or aquatic habitat, which would include creeks and riparian habitat. The biological resources evaluation would include site-specific mitigation to protect creeks and riparian habitat as needed. The proposed updated Housing Element would not significantly impact protected creeks or riparian habitat with compliance with the San Carlos Municipal Code and implementation of Mitigation Measure BIO-1.

**Environmental Safety and Community Services Element - Less Than Significant Impact.** Potential impacts protected wetlands and waters from the proposed updated Environmental Safety and Community Services Element are similar to potential impacts to special-status species; see the detailed analysis in the section above. All potential impacts to special-status species were found to be less than significant except for vegetation thinning and creation of fuel breaks for fire hazard reduction. Vegetation thinning and fuel break creation is not generally expected to occur in protected wetlands (mostly concentrated on the Bayshore) or other protected waters such as streams and associated riparian habitat. Streams and riparian habitat are protected by the San Carlos Stream Development and Maintenance Ordinance (Municipal Code Section 18.14) and generally have lower fire hazards due to the presence of water. Therefore, the proposed updated Environmental Safety and Community Services Element is not expected to significantly impact protected wetlands and waters.

**Mitigation Measures.** See Mitigation Measure BIO-1 in the special-status species section above.

***Impact BIO-4: The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Implementation of Mitigation Measure BIO-1 would reduce potential impacts to a less than significant level. (Less Than Significant wit Mitigation Incorporated)***

**Housing Element - Less Than Significant with Mitigation Incorporated.** All of the proposed 6$^{th}$ Cycle housing sites are developed and/or small vacant lots surrounded by development except for a few sites near Devonshire Canyon. Therefore, the proposed updated Housing Element is not generally expected to impact wildlife movement or nursery sites. San Carlos Stream Development and Maintenance Ordinance (Municipal Code Section 18.14) prohibits most development within

25 feet of a stream, including housing, which would protect movement corridors for aquatic species. In addition, Mitigation Measure BIO-1 requires a project specific biological resources evaluation for sites that are on or adjacent to natural vegetation or aquatic habitat. The biological resources evaluation would address wildlife movement and nursery sites if applicable and include site-specific mitigation as needed. The proposed updated Housing Element would not significantly impact wildlife movement and nursery sites with compliance with the San Carlos Municipal Code and implementation of Mitigation Measure BIO-1.

San Carlos and the entire western United States is within the Pacific Flyway migratory path for many bird species. Windows and glass doors in new buildings, including housing, have the potential to pose a hazard to migratory birds. Birds cannot see clear glass and as a result can fly into glass surfaces in buildings, resulting in injury or death. Buildings near water bodies or open space pose the greatest hazards to migratory birds. As most of the proposed 6$^{th}$ Cycle housing sites are developed and/or small vacant lots surrounded by development, and most are not near a water body, the risk to migratory birds from the new housing is generally expected to be low. The new housing sites are in an urban area with many existing buildings, and thus the risks from glass surfaces in new housing would be similar to existing conditions in the project area. Even with the allowed increase in height to six stories for multi-family residential buildings, the risk to migratory birds is expected to be low because of building design. Multi-family apartment buildings and single-family houses generally contain relatively small areas of glass surfaces compared to large office or industrial buildings, which pose greater hazards to birds. For these reasons, the proposed updated Housing Element would not significantly impact migratory birds due to hazards posed by glass surfaces in the new housing. Individual housing projects would undergo CEQA review and would be evaluated for bird strike risk based on project location and building design.

**Environmental Safety and Community Services Element - Less Than Significant Impact.** Any future development related to the updated Environmental Safety and Community Services Element policies and actions would require project-specific evaluation under CEQA and would generally be in developed areas with limited wildlife movement opportunities and no wildlife nursery sites. Some projects such as creek or stream drainage improvements or sea level rise projects could be in areas used by wildlife for movement corridors or nursery sites. All projects would be designed and constructed in accordance with City of San Carlos policies and other regional and state agency requirements and mitigation measures may be required to protect sensitive biological resources. Therefore, the proposed updated Environmental Safety and Community Services Element is not expected to significantly impact wildlife movement or nursery sites.

**Mitigation Measures.** See Mitigation Measure BIO-1, above.

***Impact BIO-5: The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Implementation of Mitigation Measures BIO-1 through BIO-3 would reduce potential impacts to a less than significant level. (Less Than Significant wit Mitigation Incorporated)***

**Housing Element - Less Than Significant with Mitigation Incorporated.** The San Carlos General Plan contains goals and policies protecting natural habitat and other biological resources, streams and riparian habitat, and the urban forest (see Section 4.3.2 Regulatory Setting above, under Local Regulations). Most of the proposed 6th Cycle housing sites are developed and/or small vacant lots surrounded by development, and most housing sites do not contain sensitive biological resources. In addition, all housing projects would have to comply with the City of San Carlos Tree Ordinance (Municipal Code Section 18.18), which requires a permit for removal of protected trees and has standards for protecting retained trees during construction. Housing projects near streams would also have to comply with the San Carlos Stream Development and Maintenance Ordinance (Municipal Code Section 18.14), which prohibits most development within 25 feet of a stream, including housing. Mitigation Measure BIO-1 requires a project specific biological resources evaluation for housing sites that are on or adjacent to natural vegetation or aquatic habitat. The biological resources evaluation would address sensitive biological resources and include site-specific mitigation as needed. Mitigation Measures BIO-2 and BIO-3 would prevent significant impacts to nesting birds and roosting bats, respectively, from new housing projects. With compliance with the San Carlos Municipal Code and implementation of Mitigation Measures BIO-1 through BIO-3, the proposed updated Housing Element would not conflict with local policies protecting biological resources.

**Environmental Safety and Community Services Element- Less Than Significant with Mitigation Incorporated.** The San Carlos General Plan contains goals and policies protecting natural habitat and other biological resources, streams and riparian habitat, and the urban forest (see Section 4.3.2 Regulatory Setting above, under Local Regulations). The proposed updated Environmental Safety and Community Services Element was developed to be compatible with the other elements existing San Carlos General Plan. Any future projects undertaken because of updated Environmental Safety and Community Services Element policies and actions would require project-specific evaluation under CEQA. Some projects such as creek or stream drainage improvements or sea level rise projects could be in areas with sensitive biological resources and wetlands. All projects would be designed and constructed in accordance with City of San Carlos policies and other regional and state agency requirements and mitigation measures may be required to protect sensitive biological resources.

Additionally, all projects would have to comply with the City of San Carlos Tree Ordinance (Municipal Code Section 18.18), which requires a permit for removal of protected trees and has standards for protecting retained trees during construction. Development projects near streams would also have to comply with the San Carlos Stream Development and Maintenance Ordinance (Municipal Code Section 18.14), which prohibits most development within 25 feet of a stream. Mitigation Measures BIO-1 through BIO-3 would prevent impacts to biological resources from fuel reduction activities (see Agency Coordination Action 3 in the Wildfire Hazard section of the updated Environmental Safety and Community Services Element). For these reasons, the proposed updated Environmental Safety and Community Services Element would not conflict with local policies protecting biological resources.

**Mitigation Measures.** See Mitigation Measures BIO-1 through BIO-3 in the special-status species section above.

***Impact BIO-6: The project would not conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan. (No Impact)***

The Master Plan for Edgewood Park and Natural Reserve, adopted in 1997, designates sensitive habitats in the park as natural preserves. The County Park abuts the southern tip of San Carlos. None of the proposed 6th Cycle housing sites are near Edgewood Park. Any future development related to the updated Environmental Safety and Community Services Element policies and actions would require project-specific evaluation under CEQA and is not expected to occur near Edgewood Park. No other habitat conservation plans apply to the project area. Therefore, the proposed updated Housing Element and updated Environmental Safety and Community Services Element would not conflict with a habitat conservation plan.

**Mitigation Measures.** None required.

### 4.3.5 References

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# 4.4 CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

This section addresses the project's potential impacts on historic, archaeological, cultural, and tribal cultural resources and recommends mitigation measures as appropriate.

## 4.4.1 Environmental Setting

The first known human inhabitants of the San Carlos area were the Ohlone, who were also known as the Costanoans. The Ohlones were hunters and gatherers, living in "tribelets" – small independent groups of usually related families occupying a specific territory and speaking the same language or dialect (Levy 1987; NWIC). Historians believe that two sub-tribes existed in and around San Carlos, the Salson to the north of Belmont Creek and Lhamshin around the greater San Carlos area. Spanish settlement of the area, beginning in 1769, led to the dispersal of the tribes to the Spanish missions and eventually the disappearance of the Ohlone as a cultural group.

The first Europeans to reach the San Francisco area were Spanish explorers in 1769 as part of the Portolá expedition. In 1774, the de Anza expedition had set out to convert the Native American tribes to Christianity, and colonization of the San Francisco Bay Area accelerated in 1776 with the establishment of the Mission San Francisco de Asis (Mission Dolores) and Mission Santa Clara de Asis in 1777. By the 1790s, the mission and other San Francisco establishments were being supported by small farms as far south as San Mateo. To encourage further settlement of the area, the Spanish government granted land to retired soldiers and men of influence. Don Jose Dario Arguello, comandante of the presidios at San Francisco and later governor of Alta California, received a 35,000-acre land grant that encompassed what would later become Atherton, Belmont, Menlo Park, Redwood City, San Carlos and part of San Mateo. The El Camino Real (which runs through San Carlos) became a heavily traveled route between Mission Dolores and Mission Santa Clara in addition to other missions along the route. This route led to the establishment of inns and roadhouses to serve travelers along the way. In this historic period, the Ohlone people were subjugated and absorbed into the mission system that resulted in the loss of their freedom of movement, their culture, and customs (Cabrillo College 2017).

### San Carlos History

What is now San Carlos was part of a land grant issued in 1835, the "Rancho de las Pulgas" (Ranch of the Fleas), which was the largest land grant in the peninsula at 35,420 acres. What was to eventually become San Carlos was bought out of the land grant by an American, Timothy Phelps, as a dairy farm in the 1850s. In 1885 he made plans to develop a town, Phelpsville, but was unsuccessful. He then sold the land in 1887 in order to make way for further development. Three additional attempts were made to develop a town. In 1888 the San Carlos land company tried to subdivide and sell the land once owned by Phelps. Later, in 1907, the San Carlos Park Syndicate attempted to call the area 'Oak Park' and engaged on an elaborate sales campaign. Finally, in 1917, Frederick Drake of the Mercantile Trust Company was hired to oversee development of the city and installed gas and electricity to the area as well as improved the existing water infrastructure.

By 1918, the first school was built, and the population slowly grew. In 1925 the residents voted for incorporation, and San Carlos was officially born. Drake continued to promote the town and coined the motto "The City of Good Living" (City of San Carlos 2017a; San Mateo County History Museum).

Commercial development followed soon after the establishment of residential neighborhoods. Support businesses, such as gas stations, grocery stores and a pharmacy were established by 1926 along El Camino Real. Industrial activity also came to San Carlos at this time when Fredrick Drake helped to bring about a Southern Pacific spur track between San Francisco and Sunnyvale. This rail connection led to the creation of the city's first industrial area, located east of the railroad.

After World War II, the population in San Carlos rapidly expanded, especially after the establishment of the Dalmo Victor and Eitel McCullough electronics plants in 1944. The population quadrupled between 1940 and 1950, largely due to the presence of these two electronics plants. The electronics industry grew and by 1958 it comprised a substantial portion of the industrial area. Also in the late 1940s, the San Carlos Airport moved from its former location between Brittan and San Carlos Avenues to its present site, east of Highway 101.

Additional residential development in areas east of El Camino Real and north and south of Holly Street also occurred at this time. As the city grew in the 1950s, residential growth was focused in the western hills, above Arguello Park and west of both Alameda de las Pulgas and San Carlos Avenue. In 1956, the City annexed 500 acres west of the Alameda so that the area could be subdivided to provide an additional 1,300 homes, including apartments.

In the East Side of San Carlos, growth in the service, supply and electronics industries fueled the City's economic development. More recently, high-tech and biotechnology firms have contributed to economic growth and transformation in San Carlos. Another recent trend has been the redevelopment of infill parcels with mixed-use and multi-family family housing in areas near Downtown and the El Camino Real transit corridor. Most new industrial development is occurring along the Industrial Road and Old County Road corridors. New multi-family and mixed-use developments are concentrated along or near San Carlos Avenue and west of El Camino Real.

### Archaeological and Historic Resources

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. Due to urbanization in San Carlos and San Mateo County, archaeological data are largely missing. However, prehistoric archeological deposits have been recorded near the banks of the Pulgas Creek consisting of mammal bone and chert flakes. A midden site on the banks of the Pulgas Creek was recorded in 1990 and consisted of stone flakes and a possible hammerstone. A majority of this site was destroyed during the construction of San Carlos Avenue and nearby residential development.

The National Register of Historic Places (NRHP) and the California Register of Historic Resources (CRHR) contain buildings, structures, sites, and objects considered to be of historic significance on the National or State level, respectively. Generally speaking, to be considered eligible for inclusion, buildings, structures and objects need to be 50 years or older. The CRHR allows a greater degree of flexibility in the age criteria, and some resources can be considered historically significance before meeting the age guidelines. The National and California Register contain two buildings of historic significance in the City of San Carlos: the Nathanial Brittan Party House and the Southern Pacific Depot. The City of San Carlos maintains a listing of 52 properties that are of historical significance known as the Historical Resources Inventory.

### 4.4.2 Regulatory Setting

**Federal**

National Historic Preservation Act of 1966

Enacted in 1966, the National Historic Preservation Act (NHPA) (16 U.S.C §§ 470 et seq.) declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of the National Register of Historic Places (NRHP), established the position of State Historic Preservation Officer (SHPO), provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHPA, assist Native American tribes in preserving their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

NHPA establishes the nation's policy for historic preservation and sets in place a program for the preservation of historic properties by requiring federal agencies to consider effects to significant cultural resources (i.e., historic properties) prior to undertakings.

Section 106 of the Federal Guidelines

Section 106 of the NHPA states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in, or eligible for inclusion in, the NRHP and that the ACHP and SHPO must be afforded an opportunity to comment, through a process outlined in the ACHP regulations at 36 Code of Federal Regulations (CFR) Part 800, on such undertakings.

National Register of Historic Places

The NRHP was established by the NHPA of 1966 as "an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment." The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history,

architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, or association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

Criterion A: It is associated with events that have made a significant contribution to the broad patterns of our history.

Criterion B: It is associated with the lives of persons who are significant in our past.

Criterion C: It embodies the distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction.

Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history.

Cemeteries, birthplaces, or graves of historic figures; properties owned by religious institutions or used for religious purposes; structures that have been moved from their original locations; reconstructed historic buildings; and properties that are primarily commemorative in nature are not considered eligible for the NRHP unless they satisfy certain conditions. In general, a resource must be at least 50 years of age to be considered for the NRHP, unless it satisfies a standard of exceptional importance.

Native American Graves Protection and Repatriation Act (NAGPRA) of 1990

The NAGPRA of 1990 sets provisions for the intentional removal and inadvertent discovery of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation

## State

California Environmental Quality Act (CEQA)

CEQA provides criteria to evaluate whether a building, structure, object, or site is significant. Under CEQA Guideline §15064.5(a), historic resources include the following those meeting the criteria listed below.

A. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code §5024.1, Title 14 CCR, Section 4850 et seq.)

B. A resource included in a local register of historical resources, as defined in §5020.1(K) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of §5024.1 (g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

C. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, providing the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historic Resources (Pub. Res. Code §5024.1, Title 14 CCR, Section 4852) including the following:

    1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

    2. Is associated with the lives of persons important in our past;

    3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

    4. Has yielded, or may be likely to yield, information important in prehistory or history.

D. The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to §5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in §5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be a historical resource as defined in Public Resources Code §5020.1(j) or 5024.1. In accordance with CEQA, properties designated

or eligible at all levels are deserving of protection by a lead agency when any undertaking proposes to demolish or alter any such property.

Typically to be considered an historic resource under CEQA, the structure in question must at least be considered eligible for local listing. However, in some cases a structure may be considered ineligible such as after detailed historic or architectural assessment, and thus would no longer be considered an historic resource under CEQA.

California Register of Historical Resources

Created in 1992 and implemented in 1998, the California Register of Historical Resources (CRHR) is "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate properties that are to be protected, to the extent prudent and feasible, from substantial adverse change (CA Public Resources Code)." Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks (CHLs) numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historic resources surveys, or designated by local landmarks programs may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria (Public Resources Code):

Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

Criterion 2: It is associated with the lives of persons important in our past.

Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.

Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance. It is possible that a resource whose integrity does not satisfy NRHP criteria may still be eligible for listing in the CRHR. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data. Resources that have achieved significance within the past 50 years also may be eligible for inclusion in the CRHR, provided that enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource.

California Historical Landmarks (CHLs)

CHLs are buildings, structures, sites, or places that have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value and that have been determined to have statewide historical significance by meeting at least one of the criteria listed below. The resource must also be approved for designation by the County Board of Supervisors or the City or Town Council in whose jurisdiction it is located, be recommended by the State Historical Resources Commission, or be officially designated by the Director of California State Parks. The specific standards in use now were first applied in the designation of CHL No. 770. CHLs No. 770 and above are automatically listed in the CRHR.

To be eligible for designation as a Landmark, a resource must meet at least one of the following criteria:

- The first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California); or
- Associated with an individual or group having a profound influence on the history of California. A prototype of, or an outstanding example of, a period, style, architectural movement or construction or one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder.

California Points of Historical Interest

California Points of Historical Interest are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. Points of Historical Interest (Point or Points) designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR. No historic resource may be designated as both a Landmark and a Point. If a Point is later granted status as a Landmark, the Point designation will be retired. In practice, the Point designation program is most often used in localities that do not have a locally enacted cultural heritage or preservation ordinance.

To be eligible for designation as a Point, a resource must meet at least one of the following criteria:

- The first, last, only, or most significant of its type within the local geographic region (city or county).
- Associated with an individual or group having a profound influence on the history of the local area.
- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act applies to both state and private lands. The act requires that upon discovery of human remains, construction or excavation activity must cease and the county coroner be notified.

Native American Heritage Commission, Public Resources Code Sections 5097.9–5097.991

Section 5097.91 of the Public Resources Code (PRC) established the Native American Heritage Commission (NAHC), whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Under Section 5097.9 of the PRC, a state policy of noninterference with the free expression or exercise of Native American religion was articulated along with a prohibition of severe or irreparable damage to Native American sanctified cemeteries, places of worship, religious or ceremonial sites or sacred shrines located on public property. Section 5097.98 of the PRC specifies that in the event of human remains discovery, no further disturbance is allowed until the county coroner has made the necessary findings regarding the origin and disposition of the remains. If the remains are of a Native American, the county coroner must notify the NAHC. The NAHC then notifies those persons most likely to be related to the Native American remains. The code section also stipulates the procedures that the descendants may follow for treating or disposing of the remains and associated grave goods. Section 5097.5 defines as a misdemeanor the unauthorized disturbance or removal of archaeological, historic, or paleontological resources located on public lands.

California Native American Graves Protection and Repatriation Act of 2001

Codified in the California Health and Safety Code Sections 8010–8030, the California Native American Graves Protection Act (NAGPRA) is consistent with the federal NAGPRA. Intended to "provide a seamless and consistent state policy to ensure that all California Indian human remains, and cultural items be treated with dignity and respect," the California NAGPRA also encourages and provides a mechanism for the return of remains and cultural items to lineal descendants. Section 8025 established a Repatriation Oversight Commission to oversee this process. The act also provides a process for non–federally recognized tribes to file claims with agencies and museums for repatriation of human remains and cultural items.

Senate Bill (SB) 18

California Government Code, Section 65352.3 incorporates the protection of California traditional tribal cultural places into land use planning for cities, counties, and agencies by establishing responsibilities for local governments to contact, refer plans to, and consult with California Native American tribes as part of the adoption or amendment of any general or specific plan proposed on or after March 1, 2005. SB18 requires public notice to be sent to tribes listed on the Native American Heritage Commission's SB18 Tribal Consultation list within the geographical areas affected by the proposed changes. Tribes must respond to a local government notice within 90

days (unless a shorter time frame has been agreed upon by the tribe), indicating whether or not they want to consult with the local government. Consultations are for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code that may be affected by the proposed adoption or amendment to a general or specific plan. As a result of the SB 18 outreach, one Native American Tribe, the Amah Mutsun Tribal Band, provided a response letter which indicated that if a Sacred Lands File Search and or California Historical Resources Information System (CHRIS) search reveals positive results within one mile of the project area, they recommend the following:

- All Crews and Individuals who will be moving any earth be Cultural Sensitivity Trained.
- A Qualified California Trained Archaeological Monitor be present during any earth movement.
- A Qualified Native American Monitor be present during any earth movement.

Assembly Bill (AB) 52

AB 52 specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is a project that may have a significant effect on the environment. AB 52 provides for consultation between lead agencies and Native American tribal organizations during the CEQA process. It requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. AB 52 specifies examples of mitigation measures that may be considered to avoid or minimize impacts on tribal cultural resources. The bill makes the above provisions applicable to CEQA projects that have a notice of preparation or a notice of negative declaration filed or mitigated negative declaration on or after July 1, 2015. AB 52 amends Sections 5097.94 and adds Sections 21073, 21074, 2108.3.1., 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to the California Public Resources Code (PRC), relating to Native Americans. No Native American tribes have contacted the City under AB 52, and thus no consultation per AB 52 was made with local tribes for this project.

AB 52 amended the California Environmental Quality Act (CEQA) to address California Native American tribal concerns regarding how cultural resources of importance to tribes are treated under CEQA. CEQA now specifies that a project that may cause a substantial adverse change in the significance of a "tribal cultural resource" [as defined in PRC 21074(a)] is a project that may have a significant effect on the environment. According to the AB 52, tribes may have expertise in tribal history and "tribal knowledge about land and tribal cultural resources at issue should be included in environmental assessments for projects that may have a significant impact on those resources."

The AB 52 process entails the following:

- The CEQA lead agency must begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation.
- A proposed Negative Declaration, Mitigated Negative Declaration (MND), or a Draft EIR cannot be released for public review before the tribe(s) has had the opportunity to request consultation.
- If the tribe(s) requests formal consultation, a MND cannot be released for public review until consultation between the tribe(s) and the lead agency is completed and mitigation measures acceptable to the tribe(s) are incorporated into the MND and the related Mitigation Monitoring or Reporting Program (MMRP).

AB 52 further defines the following legislative terms:

**Tribal Cultural Resource:** The passage of AB 52, created a new category of resource called a "tribal cultural resource" (TCR). The statute clearly identifies a TCR as a separate and distinct category of resource, separate from a historical resource. PRC Section 21074 defines a "tribal cultural resource" as any of the following under its subsections (a) through (c):

(a) (1) Sites, features, places, and objects with cultural value to descendant communities or cultural landscapes that are any of the following:

- Included in the California Register of Historical Resources.
- Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
- Deemed to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1.

(a) (2) Sacred places, including, but not limited to, Native American sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines that meet either of the following criteria:

- Listed on the California Native American Heritage Commission's Sacred Lands File pursuant to Section 5097.94 or 5097.96 and a California Native American tribe has submitted sufficient evidence to the lead agency demonstrating that the sacred places are of special religious or cultural significance to the California Native American tribe or contain known graves and cemeteries of California Native Americans.
- Listed or determined pursuant to criteria set forth in subdivision (g) of Section 5024.1 to be eligible for listing in the California Register of Historical Resources.

(b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

(c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 also may be a tribal cultural resource if it conforms with the criteria of subdivision (a).

**California Native American Tribe:** PRC Section 21074 defines a "California Native American Tribe" to mean a Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission (NAHC). This definition is broader than the concept of a "federally recognized tribe" that is typically used in implementing with various federal laws, including the National Environmental Policy Act (NEPA).

**Formal Tribal Consultation:** Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification notice that includes a brief description of the proposed project and its location as well as the lead agency contact information, and a notification statement that the federally recognized California Native American tribe has 30 days to request consultation.

**Treatment of Mitigation Measures and Alternatives:** PRC Section 21080.3.2 provides that as part of the consultation process, parties could propose mitigation measures. If the California Native American tribe requests consultation to include project alternatives, mitigation measures, or significant effects, the consultation would be required to cover those topics. PRC Section 21082.3 provides that any mitigation measures agreed upon during this consultation "shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring program" if determined to avoid or lessen a significant impact on a tribal cultural resource.

<u>Health and Safety Code, Sections 7050 and 7052</u>

Health and Safety Code Section 7050.5 declares that, in the event of the discovery of human remains outside a dedicated cemetery, all ground disturbances must cease, and the county coroner must be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

<u>Penal Code, Section 622.5</u>

Penal Code Section 622.5 provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands but specifically excludes the landowner.

## Local

San Carlos General Plan

The San Carlos 2030 General Plan was adopted in 2009. The following relevant cultural and tribal cultural resources policies are from the General Plan's Land Use Element.

*Goal LU-12:* Protect San Carlos' historic and cultural resources to maintain and enhance a unique sense of place

*Policy LU-12.1:* Evaluate historical and cultural resources early 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 historically significant structures and sites.

*Policy LU-12.3:* Ensures that modifications to identified historic resources are consistent with the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties

*Policy LU-12.4:* Encourage continued use and adaptive reuse of designated historic resources through application of the U.S. Secretary of the Interior's Standards and Guidelines for rehabilitation, reconstruction, and restoration.

*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.

*Policy LU-12.8:* Retain the exterior architectural character and setting of the Historical San Carlos Depot.

*Action LU-12.1:* Ensure thorough compliance with the provisions of the California Environmental Quality Act (CEQA) relating to potential impacts to cultural and historical resources.

### 4.4.3 Thresholds of Significance

Per the CEQA Guidelines, implementation of the Focused GPU would have a significant impact related to historic, cultural, or tribal cultural resources if it would:

A. Cause a substantial adverse change in the significance of a historic resource as defined by CEQA Guidelines Section 15064.5;

B. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines section 15064.5;

C. Disturb any human remains, including those interred outside of dedicated cemeteries?

D. Cause a substantial adverse change in the significance of a tribal cultural resources, 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;

   1. 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

   2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of 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

### 4.4.4 Impacts and Mitigation Measures

This section describes potential impacts related to cultural and tribal cultural resources which could result from the implementation of the Focused GPU and recommends mitigation measures as needed to reduce significant impacts. Unless otherwise noted, impact discussions apply to both the Housing Element and Environmental Safety and Public Services Element aspects of the project.

***Impact CUL-1: The Project would not cause a substantial adverse change in the significance of a historical resource as defined by CEQA Guidelines Section 15064.5. (Less Than Significant Impact)***

The Focused GPU includes goals, policies, and actions to address the major housing needs of San Carlos and to facilitate resilience to natural and manmade hazards identified by State law (Government Codes 65583 and 654302(g), respectively). Historical resources are found throughout the project area. The Focused GPU would not, in and of itself, result in physical construction that could have an impact on cultural resources; however future residential and mixed-use developments facilitated by implementation of the project could include alteration of historic structures or potentially historic resources that are 50 years or older, or the alteration of the historic setting of cultural resources in or adjacent to the project area. Given the age of these resources, it is possible they are historically significant and eligible for listing in the CRHR or the NRHP. At the time a development project is proposed, it would be evaluated for the potential to impact historical resources and if necessary further studies would be prepared to determine the level of significance of this impact.

Future residential and mixed-use developments facilitated by implementation of the project would be subject to existing General Plan goals, policies, and actions related to historic preservation including Policy LU-12.1 which requires interested parties be consulted early in the development review process in relation to cultural resources. Consultation with the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS) and local

information repositories would be necessary to determine if future proposed development sites contain or have the potential to contain historic architectural resources. Action LU-12.1 ensures compliance with the provisions of CEQA in relation to potential impacts to cultural and historical resources. Compliance with CEQA involves identifying mitigation to reduce potentially significant impacts. Action LU-12.2 directs the City to apply for Certified Local Government Status to participate in federal and State historic preservation programs. Action LU-12.3 assists in the identification of significant resources by requiring the City to update its list of historic, architecturally significant properties and landmarks every five years. Action LU-12.4 protects resources by requiring the city to develop a cultural landmarks and historic preservation plan and supporting ordinances.

Compliance with Policy LU-12.1 and Actions LU-12.2, LU-12.3, and LU-12.4, and compliance with CEQA requirements or evaluating historic resources would ensure that potential impacts to historical resources are minimized. This policy framework would serve to prevent impacts from occurring and would reduce the significance of impacts to cultural resources to a less than significant level.

***Impact CUL-2: The project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines section 15064.5. (Less Than Significant Impact)***

Future residential and mixed-use developments facilitated by implementation of the project may result in direct or indirect impacts to both prehistoric and historic buried archaeological resources. Construction activities such as grading and excavation may result in the accidental destruction or disturbance of archaeological sites. Additionally, development may draw the public to gather in areas with visible archaeological resources, resulting in destruction, illicit collection, or prospecting by unauthorized persons.

Policies LU-12.1 and LU-12.2 and Action LU-12.1 of the Land Use Element require the evaluation, protection, and preservation of historic and cultural resources. Policy LU-12.1 requires early evaluation of historic and cultural resources in the development review process. Policy LU-12.2 calls for fostering the preservation of historically significant sites. Action LU-12.1 requires compliance with CEQA provisions in relation to cultural and historic resources.

Implementation of the polices and action identified above as well as compliance with federal and State law would reduce potential impacts to archaeological resources to a less-than-significant level.

***Impact CUL-3: The project could potentially disturb human remains, including those interred outside of dedicated cemeteries. However, impacts would be reduced to less than significant levels with the implementation of General Plan policies. (Less Than Significant Impact)***

*Policy LU-12.5* of the Land Use Element calls for treating the discovery of human remains with treatment and respect and requires compliance with California Native Graves Protection, the Repatriation Act and other appropriate laws.

The disturbance or destruction of a significant Native American resource is considered a significant impact. Implementation of Policy LU-12.5 and compliance would reduce potential impacts to human remains to a less than significant level.

***Impact TRIB-1: The project would not cause a substantial adverse change in the significance of a tribal cultural resources, defined in Public Resources Code section 21074 as either a site, feature, place cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:***

***i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k). (Less Than Significant Impact)***

Under CEQA, a significant resource is one that is listed in a California or local historic register or is eligible to be listed. As such, lead agencies have a responsibility to evaluate such resources against the California Register criteria prior to making a finding as to a proposed project's impacts to historical resources (PRC § 21084.1, 20174, 14 CCR § 15064.5(3). Any ground disturbing work in native soils has the potential for archaeological discovery which, if Native American in origin, could be considered a TCR. Disturbance of TCRs would constitute a significant impact. Future Focused GPU projects would be subject to Action LU-12.1 which requires compliance with the provisions of CEQA. CEQA review requires investigation to determine if known historic resources are within the project area. These investigations can include a NWIC CHRIS record search and outreach to the NAHC for an SLF search and subsequent tribal outreach to determine if such tribal cultural resources exist, and if so, subsequent evaluation to determine if there would be a significant impact to such resources. The information would be used to determine if mitigation is necessary to avoid or protect known and unknown resources. Implementation of this review process would ensure that future development projects properly analyze potential impacts to tribal cultural resources and include appropriate mitigation to reduce potential impacts to less than significant levels. Therefore, the impact is considered less than significant.

***ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe. (Less Than Significant with Mitigation Incorporated)***

One Native American Tribe, the Amah Mutsun Tribal Band responded to the SB 18 outreach with information stating that if a Sacred Lands File Search and or California Historical Resources

Information System (CHRIS) search reveal positive results within one mile of the project area, they recommend the following:

- All Crews and Individuals who will be moving any earth be Cultural Sensitivity Trained.
- A Qualified California Trained Archaeological Monitor be present during any earth movement.
- A Qualified Native American Monitor be present during any earth movement.

The City will consider the need for construction crew training and Native American monitors on a case by case basis for future projects based on site specific information and subsequent outreach as part of the CEQA process. Action LU-12.1 and Mitigation Measure TRIB-1, below would protect potentially eligible resources from significant impacts.

Some Native American artifacts may not be considered unique archaeological resources under the CEQA guidelines (i.e., if there is not a demonstrable public interest in that information, it does not possess a special and particular quality such as being the oldest of its type or the best available example of its type, and it is not directly associated with a scientifically recognized important prehistoric event or person). However, it is possible for a lead agency to determine that an artifact is considered significant to a local tribe, and therefore be considered a significant resource under CEQA. To prevent otherwise non-significant resources which are significant to a local tribe from being destroyed or damaged, the implementation of Mitigation Measure TRIB-1 would reduce impacts to TCRs to less than significant. This mitigation is detailed below.

**Impact TRIB-1:** The project could cause a substantial adverse change in the significance of a Tribal Cultural Resource.

**Mitigation Measure TRIB-1: Consider all Native American Archaeological Discoveries to be Significant Resources.** All Native American artifacts (tribal finds) shall be considered as a significant Tribal Cultural Resource, pursuant to PRC 21074 until the lead agency has enough evidence to make a determination of significance. The City shall coordinate with an archaeologist who meets the U.S. Secretary of the Interior's Professional Qualifications, as well as an appropriate tribe or tribes, as determined by the NAHC, to develop an appropriate treatment plan for the resources. The plan may include implementation of archaeological data recovery excavations to address treatment of the resource along with subsequent laboratory processing and analysis. An archaeological report shall be written detailing all archaeological finds and submitted to the City and the Northwest Information Center.

The implementation of Mitigation Measure TRIB-1 would reduce potential impacts to TCRs to a less than significant level.

### 4.4.5 References

City of San Carlos. San Carlos 2030 General Plan. October 12, 2009. Accessed August 12, 2022 at: https://www.cityofsancarlos.org/Home/ShowDocument?id=1105.

City of San Carlos. 405 Industrial Road Initial Study/Mitigated Negative Declaration. August 9, 2022.

Levy, Richard. 1987. Costanoan in R.F. Heizer (ed.) Handbook of North American Indians. Vol. 8: California: 485-495. Washington D.C. Smithsonian Institute.

Northwest Information Center (NWIC), Sonoma State University. 2017. California Historical Resources Information System - Record Search, File No. 16-2020. June 22, 2017.

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# 4.5 ENERGY

This EIR section describes the existing environmental and regulatory energy setting, evaluates the project's potential energy impacts, and identifies mitigation measures, if required. The analysis focuses on the impacts related to implementation of the Housing Element. The proposed Environmental Safety and Public Services Element and other remaining project components will not have an appreciable effect on energy consumption.

## 4.5.1 Environmental Setting

California's estimated annual energy use as of 2019 included:

- Approximately 277,704 gigawatt hours of electricity; [1]
- Approximately 2,136,907 million cubic feet of natural gas per year (for the year 2018)[2];and
- Approximately 23.2 billion gallons of transportation fuel (for the year 2015).[3]

In 2019, energy use in California by demand sector was:

- Approximately 39.3 percent transportation;
- Approximately 23.2 percent industrial;
- Approximately 18.7 percent residential; and
- Approximately 18.9 percent commercial.[4]

California's electricity in-state generation system generates approximately 200,475 gigawatt-hours each year. In 2019, California produced approximately 72 percent of the electricity it uses; the rest was imported from the Pacific Northwest (approximately 9 percent) and the U.S. Southwest (approximately 19 percent). Natural gas is the main source for electricity generation at approximately 42.97 percent of the total in-state electric generation system power, as shown in Table 4.5-1.

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[1]California Energy Commission. Energy Almanac. Total Electric Generation. 2020. https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2019-total-system-electric-generation.

[2]Natural Gas Consumption by End Use. U.S. Energy Information Administration. August 31, 20020. https://www.eia.gov/dnav/ng/ng_cons_sum_dcu_SCA_a.htm.

[3]California Energy Commission. Revised Transportation Energy Demand Forecast 2018-2030. April 19, 2018. https://www.energy.ca.gov/assessments/

[4]U.S. Energy Information Administration. California Energy Consumption by End-Use Sector. California State Profile and Energy Estimates. January 16, 2020 https://www.eia.gov/state/?sid=CA#tabs-2

| Table 4.5-1: Total Electricity System Power (California 2019) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Fuel Type** | **California In-State Generation (GWh)** | **Percent of California In-State Generation** | **Northwest Imports (GWh)** | **Southwest Imports (GWh)** | **Total Imports (GWh)** | **Percent of Imports** | **California Power Mix (GWh)** | **Percent California Power Mix** |
| Coal | 248 | 0.12% | 219 | 7,765 | 7,985 | 10.34% | 8,233 | 2.96% |
| Natural Gas | 86,136 | 42.97% | 62 | 8,859 | 8,921 | 11.55% | 95,057 | 34.23% |
| Nuclear | 16,163 | 8.06% | 39 | 8,743 | 8,782 | 11.37% | 24,945 | 8.98% |
| Oil | 36 | 0.02% | 0 | 0 | 0 | 0.00% | 36 | 0.01% |
| Other (Petroleum Coke/Waste Heat) | 411 | 0.20% | 0 | 11 | 11 | 0.01% | 422 | 0.15% |
| Large Hydroelectric | 33,145 | 16.53% | 6,387 | 1,071 | 7,458 | 9.66% | 40,603 | 14.62% |
| Unspecified Sources of Power | 0 | 0.00% | 6,609 | 13,767 | 20,376 | 26.38% | 20,376 | 7.34% |
| Renewables | 64,336 | 32.09% | 10,615 | 13,081 | 23,696 | 30.68% | 88,032 | 31.70% |
| Biomass | 5,851 | 2.92% | 903 | 33 | 936 | 1.21% | 6,787 | 2.44% |
| Geothermal | 10,943 | 5.46% | 99 | 2,218 | 2,318 | 3.00% | 13,260 | 4.77% |
| Small Hydro | 5,349 | 2.67% | 292 | 4 | 296 | 0.38% | 5,646 | 2.03% |
| Solar | 28,513 | 14.22% | 282 | 5,295 | 5,577 | 7.22% | 34,090 | 12.28% |
| Wind | 13,680 | 6.82% | 9,038 | 5,531 | 14,569 | 18.87% | 28,249 | 10.17% |
| **Total** | **200,475** | **100.00%** | **23,930** | **53,299** | **77,229** | **100.00%** | **277,704** | **100.00%** |

Notes:
[1] Source: California Energy Commission. 2019 Total System electric Generation. https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2019-total-system-electric-generation

A summary of and context for energy consumption and energy demands within the State is presented in "U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts" excerpted below:

California was the seventh-largest producer of crude oil among the 50 states in 2018, and, as of January 2019, it ranked third in oil refining capacity.

California is the largest consumer of jet fuel among the 50 states and accounted for one-fifth of the nation's jet fuel consumption in 2018.

California's total energy consumption is the second-highest in the nation, but, in 2018, the State's per capita energy consumption ranked the fourth-lowest, due in part to its mild climate and its energy efficiency programs.

In 2018, California ranked first in the nation as a producer of electricity from solar, geothermal, and biomass resources and fourth in the nation in conventional hydroelectric power generation.

In 2018, large- and small-scale solar PV and solar thermal installations provided 19% of California's net electricity generation.[5].

5State Profile and Energy Estimates. Independent Statistics and Analysis. [Online] [Cited: January 16, 2020.] http://www.eia.gov/state/?sid=CA#tabs2.

As indicated above, California is one of the nation's leading energy-producing states, and California per capita energy use is among the nation's most efficient. Given the nature of the proposed project, the remainder of this discussion will focus on the three sources of energy that are most relevant to the project—namely, electricity and natural gas for building uses, and transportation fuel for vehicle trips associated with the proposed project.

### Electricity and Natural Gas

Electricity and natural gas would be provided to the project by Pacific Gas & Electric (PG&E). PG&E provides electrical and natural gas service to the project area through State-regulated utility contracts. PG&E provides electric energy service to 16 million people throughout a 70,000-square-mile service area in northern and central California.[6] The delivery of electricity involves a number of system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. In 2020, PG&E provided 78,519 Gigawatt-hours per year of electricity.[7]

Table 4.5-2 identifies PG&E's specific proportional shares of electricity sources in 2019. As shown in Table 4.5-2, the 2019 PG&E Power Mix for their Base Plan has renewable energy at 29 percent of the overall energy resources, of which biomass and waste is at three percent, solar energy is at 12 percent, and wind power is at nine percent. Other energy sources include large hydroelectric at 27 percent and nuclear at 44 percent.

Natural gas is delivered through a nation-wide network of high-pressure transmission pipelines. In 2020, PG&E provided 4,509 million therms of natural gas.[8]

The following summary of natural gas resources and service providers, delivery systems, and associated regulation is excerpted from information provided by the California Public Utilities Commission (CPUC).

6 Pacific Gas & Electric. Company Profile. https://www.pge.com/en_US/about-pge/company-information/profile/profile.page.

7 California Energy Commission. Electricity Consumption by Entity. http://www.ecdms.energy.ca.gov/elecbyutil.aspx.

8 California Energy Commission. Gas Consumption by Entity. http://www.ecdms.energy.ca.gov/gasbyutil.aspx.

| Table 4.5-2: PG&E 2019 Power Content Mix | |
|---|---|
| **Energy Resources** | **2019 PG&E Power Mix** |
| Eligible Renewable[1] | 29% |
| *Biomass & Biowaste* | *3%* |
| *Geothermal* | *2%* |
| *Eligible Hydroelectric* | *2%* |
| *Solar* | *12%* |
| *Wind* | *9%* |
| Coal | 0% |
| Large Hydroelectric | 27% |
| Natural Gas | 0% |
| Nuclear | 44% |
| Other | 0% |
| Unspecified Sources of power[2] | 0% |
| Total | 100% |

Notes:
Source: Pacific Gas & Electric. 2019 Power Mix. https://www.pge.com/pge_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2020/1220-PowerContent-ADA.pdf
(1) The eligible renewable percentage above does not reflect Renewables Portfolio Standard (RPS) compliance, which is determined using a different methodology.
(2) Unspecified sources of power are not traceable to specific generation sources.

The CPUC regulates natural gas utility service for approximately 11 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller investor-owned natural gas utilities. The CPUC also regulates independent storage operators Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.

California's natural gas utilities provide service to over 11 million gas meters. SoCalGas and PG&E provide service to about 5.9 million and 4.3 million customers, respectively, while SDG&E provides service to over 800,000 customers. In 2018, California gas utilities forecasted that they would deliver about 4,740 million cubic feet per day (MMcfd) of gas to their customers, on average, under normal weather conditions.

The vast majority of California's natural gas customers are residential and small commercial customers, referred to as "core" customers. Larger volume gas customers, like electric generators and industrial customers, are called "noncore" customers. Although very small in number relative to core customers, noncore customers consume about 65 percent of the natural gas delivered by the state's natural gas utilities, while core customers consume about 35 percent.

The CPUC regulates the California utilities' natural gas rates and natural gas services, including in-state transportation over the utilities' transmission and distribution pipeline systems, storage, procurement, metering and billing.

Most of the natural gas used in California comes from out-of-state natural gas basins. In 2017, California utility customers received 38 percent of their natural gas supply from basins located in the U.S. Southwest, 27 percent from Canada, 27 percent from the U.S. Rocky Mountain area, and 8 percent from production located in California."[9]

**Transportation Energy Resources**

The project would generate vehicle trips resulting in consumption of energy resources, predominantly gasoline and diesel fuel. Gasoline (and other vehicle fuels) are commercially-provided commodities and would be available to the project residents and employees via commercial outlets.

The most recent data available shows the transportation sector emits 40 percent of the total greenhouse gases in the state and about 84 percent of smog-forming oxides of nitrogen (NOx).[10,11] In 2019, 28 percent of total United States energy consumption was for transporting people and goods from one place to another. In 2019, petroleum comprised about 91 percent of all transportation energy use, excluding fuel consumed for aviation and most marine vessels.[12] In 2020, about 123.49 billion gallons (or about 2.94 billion barrels) of finished motor gasoline were consumed in the United States, an average of about 337 million gallons (or about 8.03 million barrels) per day.[13]

### 4.5.2 Regulatory Framework

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation (U.S. DOT), the United States Department of Energy (U.S. DOE), and the United States Environmental Protection Agency (U.S. EPA) are three federal agencies with substantial influence over energy policies and programs. On the state level, the CPUC and the California Energy Commissions (CEC) are two agencies with authority over different aspects of energy. Relevant federal and state energy-related laws and plans are summarized below.

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[9] California Public Utilities Commission. Natural Gas and California. http://www.cpuc.ca.gov/natural_gas/

[10] CARB. California Greenhouse Gas Emissions Inventory – 2020 Edition. https://www.arb.ca.gov/cc/inventory/data/data.htm

[11] CARB. 2016 SIP Emission Projection Data. https://www.arb.ca.gov/app/emsinv/2017/emseic1_query.php?F_DIV=-4&F_YR=2012&F_SEASON=A&SP=SIP105ADJ&F_AREA=CA

[12] US Energy Information Administration. Use of Energy in the United States Explained: Energy Use for Transportation. https://www.eia.gov/energyexplained/?page=us_energy_transportation

[13] EIA. Frequently Asked Questions. https://www.eia.gov/tools/faqs/faq.php?id=23&t=10

## Federal

Corporate Average Fuel Economy (CAFE) Standards

First established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) standards reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and U.S. EPA jointly administer the CAFE standards. The U.S. Congress has specified that CAFE standards must be set at the "maximum feasible level" with consideration given for: (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy.[14]

Issued by NHTSA and U.S. EPA in March 2020 (published on April 30, 2020 and effective after June 29, 2020), the Safer Affordable Fuel-Efficient Vehicles Rule would maintain the CAFE and $CO_2$ standards applicable in model year 2020 for model years 2021 through 2026. The estimated CAFE and $CO_2$ standards for model year 2020 are 43.7 mpg and 204 grams of CO2 per mile for passenger cars and 31.3 mpg and 284 grams of $CO_2$ per mile for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012.[15]

Intermodal Surface transportation Efficiency Act of 1991 (ISTEA)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions.

The Transportation Equity Act of the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides

[14]National Highway Safety Administration (NHTSA). Corporate Average Fuel Economy. https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy.

[15] National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (USEPA), 2018. Federal Register / Vol. 83, No. 165 / Friday, August 24, 2018 / Proposed Rules, The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks 2018. Available at: https://www.epa.gov/regulations-emissions-vehicles-and-engines/safer-affordable-fuel-efficient-safe-vehicles-final-rule.

for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems to help improve operations and management of transportation systems and vehicle safety.

**State**

Integrated Energy Policy Report (IEPR)

Senate Bill 1389 requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the State's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety. The CEC prepares these assessments and associated policy recommendations every two years, with updates in alternate years.

The 2019 IEPR was adopted February 20, 2020, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2019 IEPR focuses on a variety of topics such as decarbonizing buildings, integrating renewables, energy efficiency, energy equity, integrating renewable energy, updates on Southern California electricity reliability, climate adaptation activities for the energy sector, natural gas assessment, transportation energy demand forecast, and the California Energy Demand Forecast.[16]

The 2020 IEPR was adopted March 23, 2021 and identifies actions the state and others can take to ensure a clean, affordable, and reliable energy system. In 2020, the IEPR focuses on California's transportation future and the transition to zero-emission vehicles, examines microgrids, lessons learned from a decade of state-supported research, and stakeholder feedback on the potential of microgrids to contribute to a lean and resilient energy system, It also reports on California's energy demand outlook, updated to reflect the global pandemic and help plan for a growth in zero-emission plug in electric vehicles.[17]

State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number

[16] California Energy Commission. Final 2019 Integrated Energy Policy Report. February 20, 2020. https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2019-integrated-energy-policy-report

[17] California Energy Commission. Final 2020 Integrated Energy Policy Report. March 23, 2020. https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2020-integrated-energy-policy-report-update

of strategies, including assistance to public agencies and fleet operators and encouraging urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access.

California Building Standards Code (Title 24)

*California Building Energy Efficiency Standards (Title 24, Part 6)*. The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations (CCR), Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. The current California Building Energy Efficiency Standards are the 2019 Title 24 standards, which became effective on January 1, 2020. The 2019 Title 24 standards include efficiency improvements to lighting and non-residential standards which include alignment with the American Society of Heating and Air-Conditioning Engineers.

All building permit applications submitted on or after January 1, 2020 must follow the 2019 standards. The 2016 residential standards were estimated to be approximately 28 percent more efficient than the 2013 standards, whereas the 2019 residential standards are estimated to be approximately seven percent more efficient than the 2016 standards. Once rooftop solar electricity generation is factored in, 2019 residential standards are estimated to be approximately 53 percent more efficient than the 2016 standards. Under the 2019 standards, nonresidential buildings are estimated to be approximately 30 percent more efficient than the 2016 standards. Energy efficient buildings require less electricity; increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions.

California Building Energy Efficiency Standards (Title 24, Part 11). The 2019 California Green Building Standards Code (CCR Title 24, Part 11), commonly referred to as the CALGreen Code, went into effect on January 1, 2020. The 2019 CALGreen Code includes mandatory measures for non-residential development related to site development; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality.

The Department of Housing and Community Development (HCD) updated CALGreen through the 2019 Triennial Code Adoption Cycle. HCD modified the best management practices for stormwater pollution prevention (Section 5.106.2); added Sections 5.106.4.1.3 and 5.106.4.1.5 regarding bicycle parking; amended Section 5.106.5.3.5 allowing future charging spaces to qualify as designated parking for clean air vehicles; updated Section 5.303.3.3 regarding showerhead flow rates; amended Section 5.304.1 for outdoor potable water use in landscape areas and repealed Sections 5.304.2 and 5.304.3; and updated Section 5.504.5.3 regarding MERV filters in mechanically ventilated buildings.

Senate Bill 100

Senate Bill 100 (SB 100) requires 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045. SB 100 was adopted September 2018.

The interim thresholds from prior Senate Bills and Executive Orders would also remain in effect. These include Senate Bill 1078 (SB 1078), which requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. Senate Bill 107 (SB 107) changed the target date to 2010. Executive Order S-14-08, which was signed on November 2008 and expanded the State's Renewable Energy Standard to 33 percent renewable energy by 2020. Executive Order S-21-09 directed the CARB to adopt regulations by July 31, 2010 to enforce S-14-08. Senate Bill X1-2 codifies the 33 percent renewable energy requirement by 2020.

Senate Bill 350

Senate Bill 350 (SB 350), signed into law October 7, 2015, increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. This will increase the use of Renewables Portfolio Standard (RPS) eligible resources, including solar, wind, biomass, geothermal, and others. In addition, SB 350 requires the state to double statewide energy efficiency savings in electricity and natural gas end uses by 2030. To help ensure these goals are met and that greenhouse gas emission reductions are realized, large utilities will be required to develop and submit Integrated Resource Plans (IRPs). These IRPs will detail how each entity will meet their customers resource needs, reduce greenhouse gas emissions, and ramp up the deployment of clean energy resources.

Assembly Bill 32

In 2006 the California State Legislature adopted Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006. AB 32 requires CARB to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable statewide emission cap which will be phased in starting in 2012. Emission reductions include carbon sequestration projects that would remove carbon from the atmosphere and best management practices that are technologically feasible and cost effective.

Assembly Bill 1493/Pavley Regulations

California Assembly Bill 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations to reduce GHGs emitted by passenger vehicles and light duty trucks. In 2005, the CARB submitted a "waiver" request to the U.S. EPA from a portion of the federal Clean Air Act in order to allow the State to set more stringent tailpipe emission standards for $CO_2$ and other GHG emissions from passenger vehicles and light duty trucks. On December 19, 2007 the U.S. EPA announced that it denied the "waiver" request. On January 21, 2009, CARB submitted a letter to the U.S. EPA administrator regarding the State's request to reconsider the waiver denial. The U.S. EPA approved the waiver on June 30, 2009.

*Executive Order S-1-07/Low Carbon Fuel Standard*

Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG

emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. This Order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009 CARB approved the proposed regulation to implement the low carbon fuel standard and began implementation on January 1, 2011. The low carbon fuel standard is anticipated to reduce GHG emissions by about 16 million tons per year by 2020. CARB approved some amendments to the LCFS in December 2011, which were implemented on January 1, 2013. In September 2015, the Board approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address procedural deficiencies in the way the original regulation was adopted. In 2018, the Board approved amendments to the regulation, which included strengthening and smoothing the carbon intensity benchmarks through 2030 in-line with California's 2030 GHG emission reduction target enacted through SB 32, adding new crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector.

The LCFS is designed to encourage the use of cleaner low-carbon transportation fuels in California, encourage the production of those fuels, and therefore, reduce GHG emissions and decrease petroleum dependence in the transportation sector. Separate standards are established for gasoline and diesel fuels and the alternative fuels that can replace each. The standards are "back-loaded," with more reductions required in the last five years, than during the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today's fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the low carbon fuel standard will be based on a combination of both lower carbon fuels and more efficient vehicles.

Reformulated gasoline mixed with corn-derived ethanol, at ten percent by volume, and low sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel as appropriate. Compressed natural gas and liquefied natural gas also may be low carbon fuels. Hydrogen and electricity, when used in fuel cells or electric vehicles, are also considered as low carbon fuels for the low carbon fuel standard.

<u>Executive Order N-79-20/Zero Emissions by 2035 Standard</u>

Executive Order N-79-20 was issued in January 2021 and proposes a goal of the State that 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035. Furthermore, it proposes a goal of the State that 100 percent of medium- and heavy-duty vehicles in the State be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks, as well as to transition to 100 percent zero-emission off-road vehicles and equipment by 2035 where feasible.

California Air Resources Board

*CARB's Advanced Clean Cars Program.* Closely associated with the Pavley regulations, the Advanced Clean Cars emissions control program was approved by CARB in 2012. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles for model years 2015–2025. The components of the Advanced Clean Cars program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years.[18]

*Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling*. The Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (Title 13, California Code of Regulations, Division 3, Chapter 10, Section 2435) was adopted to reduce public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles. This section applies to diesel-fueled commercial motor vehicles with gross vehicular weight ratings of greater than 10,000 pounds that are or must be licensed for operation on highways. Reducing idling of diesel-fueled commercial motor vehicles reduces the amount of petroleum-based fuel used by the vehicle.

Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen, and other Criteria Pollutants, form In-Use Heavy-Duty Diesel-Fueled Vehicles

The Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles (Title 13, California Code of Regulations, Division 3, Chapter 1, Section 2025) was adopted to reduce emissions of diesel particulate matter, oxides of nitrogen ($NO_X$) and other criteria pollutants from in-use diesel-fueled vehicles. This regulation is phased, with full implementation by 2023. The regulation aims to reduce emissions by requiring the installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. The newer emission controlled models would use petroleum-based fuel in a more efficient manner.

Sustainable Communities Strategy

The Sustainable Communities and Climate Protection Act of 2008, or Senate Bill 375 (SB 375), coordinates land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction mandates established in AB 32.

Senate Bill 375 (SB 375) was adopted September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy

[18] California Air Resources Board, California's Advanced Clean Cars Program, January 18, 2017. www.arb.ca.gov/msprog/acc/acc.htm.

(SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). CARB, in consultation with each MPO, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. As of 2018, the 2020 and 2035 targets were set at 15 percent and 19 percent, respectively. CARB is also charged with reviewing each MPO's sustainable communities strategy or alternate planning strategy for consistency with its assigned targets.

### 4.5.3 Significance Thresholds and Methodology

In compliance with Appendix G of the State CEQA Guidelines, the project would result in a significant energy impact if it would:

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

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

c) Cause a substantial adverse cumulative impact would respect to energy usage.

In addition, Appendix F of the State CEQA Guidelines states that the means of achieving the goal of energy conservation includes the following:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas and oil; and
- Increasing reliance on renewable energy sources.

Appendix F of the State CEQA guidelines states that the environmental impacts from a project can include:

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

- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

*Methodology*

Information from the CalEEMod 2020.4.0 Daily and Annual Outputs, contained in Appendix C, was utilized for this analysis. The CalEEMod outputs detail project related transportation energy demands and facility energy demands.

### 4.5.4 Impacts and Mitigation Measures

This section describes potential energy impacts and recommends mitigation measures, as needed, to reduce significant impacts.

***Impact Energy-1 – The project would not generate energy usage, either directly or indirectly, that may have a significant impact on the environment. (Less Than Significant Impact)***

Energy consumption related to project operations would include transportation energy demands and facilities energy demands (energy consumed by building operations and site maintenance activities).

**Transportation Fuel Consumption**

The largest source of operational energy use would be vehicle operation of residents, employees and truck trips. The City of San Carlos is an urbanized area, and the project would increase residential density in areas with existing transit stops.

Using the CalEEMod output (MD Acoustics 2022), it is assumed that an average trip for autos and light trucks was 9.5 miles and 3- 4-axle trucks were assumed to travel an average of 6.69 miles.[19] To be conservative, it was assumed that vehicles would operate 365 days per year. Table 4.5-3 shows the estimated annual fuel consumption for all classes of vehicles from autos to heavy- heavy trucks for the Cumulative (2040) Plus Project scenario compared with the Cumulative (2040) scenario.[20] The proposed project would generate approximately 28,957 new trips per day, compared to the existing 185,433 trips per day without the project, per the traffic analysis from Kittelson & Associates. The vehicle fleet mix was used from the CalEEMod output for the Cumulative (2040) Plus Project scenario (MD Acoustics 2022). Table 4.5-3 shows that fuel consumption would be reduced by 62.7% percent per capita within the new development of the project.

[19] CalEEMod default distance for H-W (home-work) or C-W (commercial-work) is 9.5 miles; 7.3 miles for H-O (home-other) or C-O (commercial-other).

[20] Average fuel economy based on aggregate mileage calculated in EMFAC 2017 for 2040. See Appendix C for EMFAC output.

| Table 4.5-3: Estimated Vehicle Operations Fuel Consumption | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Vehicle Type** | **Vehicle Mix** | **Number of Vehicles** | **Average Trip (miles)[1]** | **Daily VMT** | **Average Fuel Economy (mpg)** | **Total Gallons per Day** | **Total Annual Fuel Consumption (gallons)** |
| **Cumulative (2040) Plus Project** | | | | | | | |
| Light Auto | Automobile | 12,265 | 16.6 | 203,595 | 46.25 | 4,402 | 1,606,624 |
| Light Truck | Automobile | 2,491 | 6.69 | 16,668 | 38.51 | 433 | 157,992 |
| Light Truck | Automobile | 7,660 | 6.69 | 51,246 | 38.53 | 1,330 | 485,409 |
| Medium Truck | Automobile | 5,012 | 6.69 | 33,530 | 32.08 | 1,045 | 381,488 |
| Light Heavy Truck | 2-Axle Truck | 887 | 8.4 | 7,447 | 14.10 | 528 | 192,738 |
| Light Heavy Truck 10,000 lbs + | 2-Axle Truck | 244 | 8.4 | 2,052 | 14.93 | 137 | 50,159 |
| Medium Heavy Truck | 3-Axle Truck | 353 | 8.4 | 2,969 | 11.00 | 270 | 98,485 |
| Heavy Heavy Truck | 4-Axle Truck | 45 | 8.4 | 374 | 7.72 | 48 | 17,699 |
| Total | | 28,957 | -- | 317,881 | -- | 8,193 | -- |
| **Total Annual Fuel Consumption** | | | | | | | **2,990,595** |
| **Service Population** | | | | | | | **12,927** |
| **Annual Fuel Consumption per Capita** | | | | | | | **231.3** |
| **Cumulative (2040)** | | | | | | | |
| Light Auto | Automobile | 108,672 | 16.6 | 1,803,955 | 46.25 | 39,001 | 14,235,480 |
| Light Truck | Automobile | 11,966 | 6.69 | 80,049 | 38.51 | 2,079 | 758,774 |
| Light Truck | Automobile | 33,728 | 6.69 | 225,637 | 38.53 | 5,856 | 2,137,274 |
| Medium Truck | Automobile | 22,341 | 6.69 | 149,462 | 32.08 | 4,659 | 1,700,525 |
| Light Heavy Truck | 2-Axle Truck | 4,531 | 8.4 | 38,061 | 14.10 | 2,699 | 985,064 |
| Light Heavy Truck 10,000 lbs + | 2-Axle Truck | 1,222 | 8.4 | 10,267 | 14.93 | 688 | 250,984 |
| Medium Heavy Truck | 3-Axle Truck | 1,760 | 8.4 | 14,783 | 11.00 | 1,344 | 490,408 |
| Heavy Heavy Truck | 4-Axle Truck | 1,214 | 8.4 | 10,197 | 7.72 | 1,321 | 482,337 |
| Total | | 185,433 | -- | 2,332,412 | -- | 57,646 | -- |
| **Total Annual Fuel Consumption** | | | | | | | **21,040,846** |
| **Service Population** | | | | | | | **33,896** |
| **Fuel Consumption per Capita** | | | | | | | **620.7** |
| **Percent Change Fuel Consumption per Capita** | | | | | | | **-62.7%** |

Notes:
[1]Based on the size of the site and relative location, trips were assumed to be local rather than regional.

Trip generation and VMT generated by the proposed project does not propose uses or operations that would inherently result in excessive and wasteful vehicle trips and VMT, nor associated excess and wasteful vehicle energy consumption. Furthermore, the state of California consumed approximately 4.2 billion gallons of diesel and 15.1 billion gallons of gasoline in 2015.[21,22] Therefore, as fuel consumption would be reduced from the implementation of the project, fuel consumption would be insignificant in comparison to the State's demand. Therefore, project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary and would therefore have a less than significant impact.

[21]California Energy Commission. California Gasoline Data, Facts, and Statistics. https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-gasoline-data-facts-and-statistics

[22] California Energy Commission. Diesel Fuel Data, Facts, and Statistics. https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/diesel-fuel-data-facts-and-statistics

**Facility Energy Demands (Electricity and Natural Gas)**

Building operation and site maintenance (including landscape maintenance) from future projects associated with the Focused General Plan Update would result in the consumption of electricity and natural gas (provided by PG&E). Operation of the proposed project would involve the use of energy for heating, cooling, and equipment operation. These facilities would comply with all applicable California Energy Efficiency Standards and 2019 CALGreen Standards.

The annual natural gas and electricity demands were provided per the CalEEMod output (MD Acoustics 2022) and are provided in Table 4.5-4. As shown, natural gas demand will be reduced by 44.2 percent and electricity demand will be reduced by 1.8 percent per capita; the project's 2040 growth projection would result in a reduction in energy usage per capita and would therefore have a less than significant impact.

**Table 4.5-4: Unmitigated Annual Operation Energy Demand Summary**

| **Natural Gas Demand** | | **kBTU/year** |
|---|---|---|
| Cumulative (2040) Plus Project | Planning Area | 41,199,470 |
| | Per Capita | 3,056 |
| Cumulative (2040) | Planning Area | 58,457,370 |
| | Per Capita | 5,473 |
| **Net Difference** | | **-17,257,900** |
| **Percent Change Per Capita** | | **-44.2%** |
| **Electricity Demand** | | **kWh/year** |
| Cumulative (2040) Plus Project | Planning Area | 15,103,600 |
| | Per Capita | 1,120 |
| Cumulative (2040) | Planning Area | 12,190,790 |
| | Per Capita | 1,141 |
| **Net Difference** | | 2,912,810 |
| **Percent Change Per Capita** | | -1.8% |

***Impact Energy-2 – The project would not conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing the emissions of greenhouse gases. (Less Than Significant Impact)***

Regarding federal transportation regulations, the City of San Carlos is located in an already developed area with existing roads. These roads are already in place so the project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be proposed pursuant to the ISTEA because the City is not planning for intermodal facilities in the Planning Area.

Regarding the State's Energy Plan and compliance with Title 24 CCR energy efficiency standards, all future projects within the Planning Area are required to comply with the California Green

Building Standard Code requirements for energy efficient buildings and appliances, as well as utility energy efficiency programs implemented by PG&E.

Regarding the State's Renewable Energy Portfolio Standards, all projects within the Planning Area would be required to meet or exceed the energy standards established in the California Green Building Standards Code, Title 24, Part 11 (CALGreen). CalGreen Standards require that new buildings reduce water consumption, employ building commissioning design review to increase building system efficiencies, divert construction waste from landfills, use LED lighting, and install low pollutant-emitting finish materials. All future projects would be required to show compliance with all federal, state, and local energy regulations.

As described above, by requiring compliance with all relevant regulations for future developments within the Planning Area, the proposed project would be consistent with all applicable plans, policies, and regulations and would have a less than significant impact.

***Impact Energy-3 – The project would not cause substantial adverse cumulative impacts with respect to energy usage. (Less Than Significant Impact)***

Individual projects do not demand enough energy usage to impact cumulative energy demand for the region. Thus, the analysis of energy usage is by nature a cumulative analysis focused on whether an individual project's contribution to energy demand is cumulatively considerable. As described under Impact Energy-1 and Energy-2, implementation of the project would result in a reduction in per capita energy usage compared to the 2040 scenario without project implementation; this impact would be considered less than significant.

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# 4.6 GEOLOGY AND SOILS

This section describes the existing geologic, groundwater, seismic, and soil characteristics of the project area. It includes a description of the regulatory framework and analyzes impacts that could result from the implementation of the proposed Focused GPU.

## 4.6.1 Environmental Setting

San Carlos is located on the San Francisco Peninsula, which is set within the larger Coast Ranges Geomorphic Province. This province is characterized by northwest-southeast trending mountain ranges that stretch from the Oregon border on the north to Point Conception on the south. In the San Francisco Bay area, most of the Coast Ranges are underlain by the tectonically complex, Jurassic- to Cretaceous-age sedimentary and metamorphic bedrock of the Franciscan Complex. Based on geologic mapping by the US Geological Survey (USGS), the project site is underlain by Holocene-age coarse-grained alluvium (USGS 1993).

The geology within the city limit and the SOI is mainly unconsolidated sedimentary deposits underlain by sedimentary rock and Franciscan bedrock west of Alameda de las Pulgas. The western border area of the City and its western SOI is underlain by the Cretaceous age Franciscan Complex consisting mainly of greywacke sandstone, conglomerate and shale bedrock. Conglomerate, sandstone and mudstone of the Santa Clara formation underlie the transitional alluvial zone between the western hills and flatland deposits.

The lowland deposits, which underlie most of San Carlos, consist mostly of the deposits of Holocene age alluvium (less than 11,000 years old) consisting of a mix of clay, silt, sand, and gravel. Some older Pleistocene age deposits are also present, but with similar compositions. The alluvium is several tens of feet to hundreds of feet thick at the Bay margins to the northeast. The more recent flatland deposits overlie Franciscan shale, sandstone and con-glomerate, which are exposed in the western foothills and form the core bedrock of the Coast Ranges on the San Francisco Peninsula.

In the east parts of the project area, the surface deposits are artificial fill consisting of a mix of gravel, sand, Bay mud, broken concrete, cement, asphalt, and solid waste, as much as ten feet thick. The older portions of the fill (mid-19th through mid-20th centuries) are undocumented in that there are few or no records about their constituent materials, distribution, or degree of compaction. Beneath the fill is zero to 20 feet of Bay mud, thickening toward the margin of San Francisco Bay. The Bay mud is saturated, highly compressible soft clay, silt and organic material. Beneath the Bay mud is a series of interlayered clay, clayey sand and sand (likely the Old Bay Clay or the Colma formation). The geologic deposits are generally considered stiff enough to provide foundation support for light- and medium-weight structures.[1]

[1] City of San Carlos. San Carlos 2030 General Plan EIR. June 25, 2009.

## Groundwater

The Santa Clara formation is a major aquifer and is widespread in the South Bay, and provides potable water for San Carlos and other South Bay communities. The water table within the city limit and SOI normally is approximately10 feet below ground surface (bgs), with deeper water in the upland areas and groundwater at elevations less than five feet below grade nearer the Bay margins. (USGS, 1998) There can also be significant seasonal groundwater elevation effects, with groundwater elevations rising during the winter recharge season. Groundwater levels typically vary with the season and the amount of precipitation received.

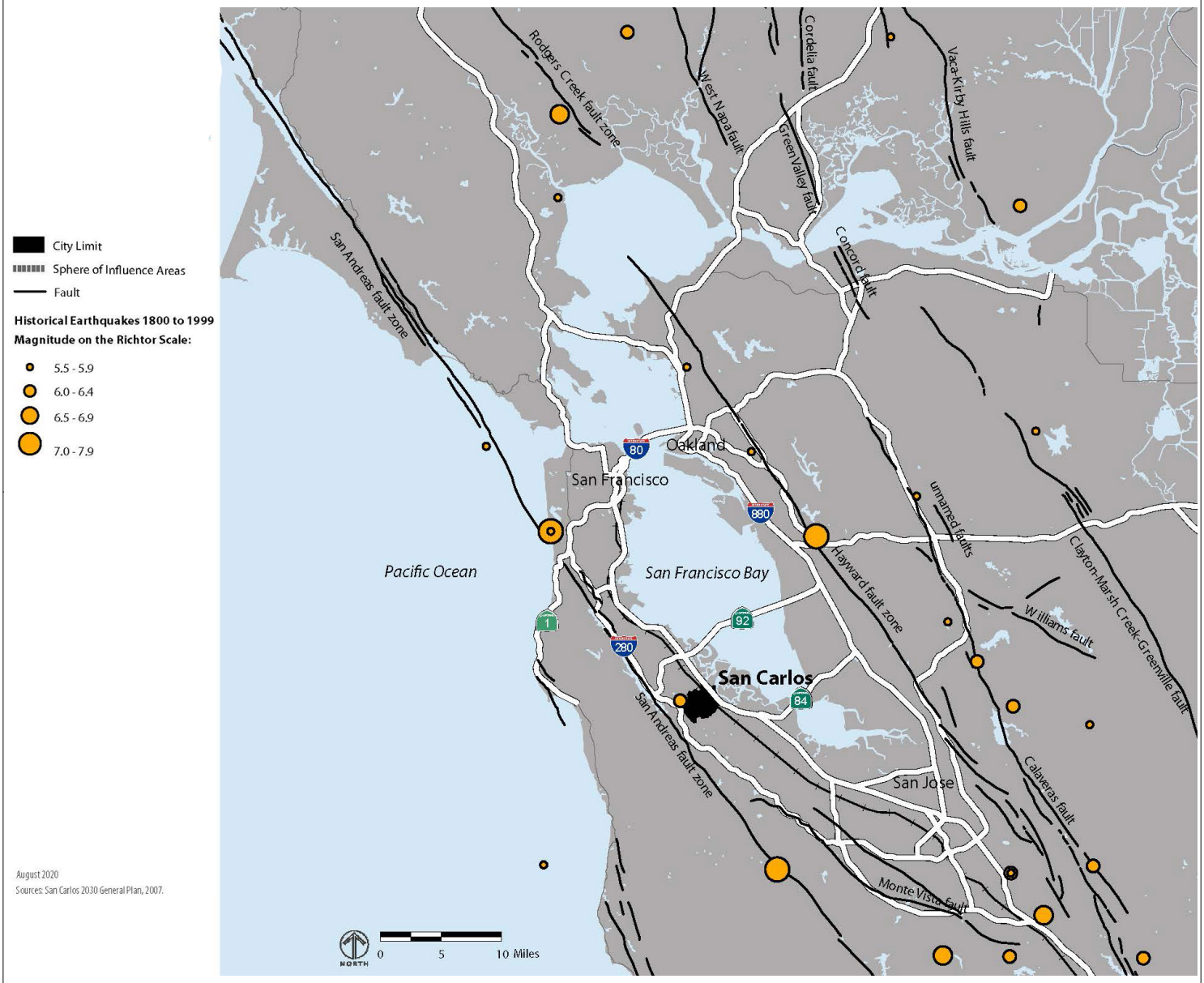
## Faulting and Seismicity

The San Francisco Bay Area contains numerous active faults and is considered seismically active. Numerous small earthquakes occur every year in the San Francisco Bay Region, and larger earthquakes have been recorded and can be expected to occur in the future.

The Monte Vista – Shannon, San Andreas, and Pilarcitos are the major faults in the vicinity of San Carlos. The San Andreas Fault System, which is located about one mile west of the western border of the City, is the closest active fault system to the City. Other major earthquake faults in the San Francisco Bay Area include: the Hayward Fault, which is approximately 14 miles to the northeast, the Calaveras Fault, which is approximately 21 miles to east, and the San Gregorio Fault, approximately 10 miles to the west.

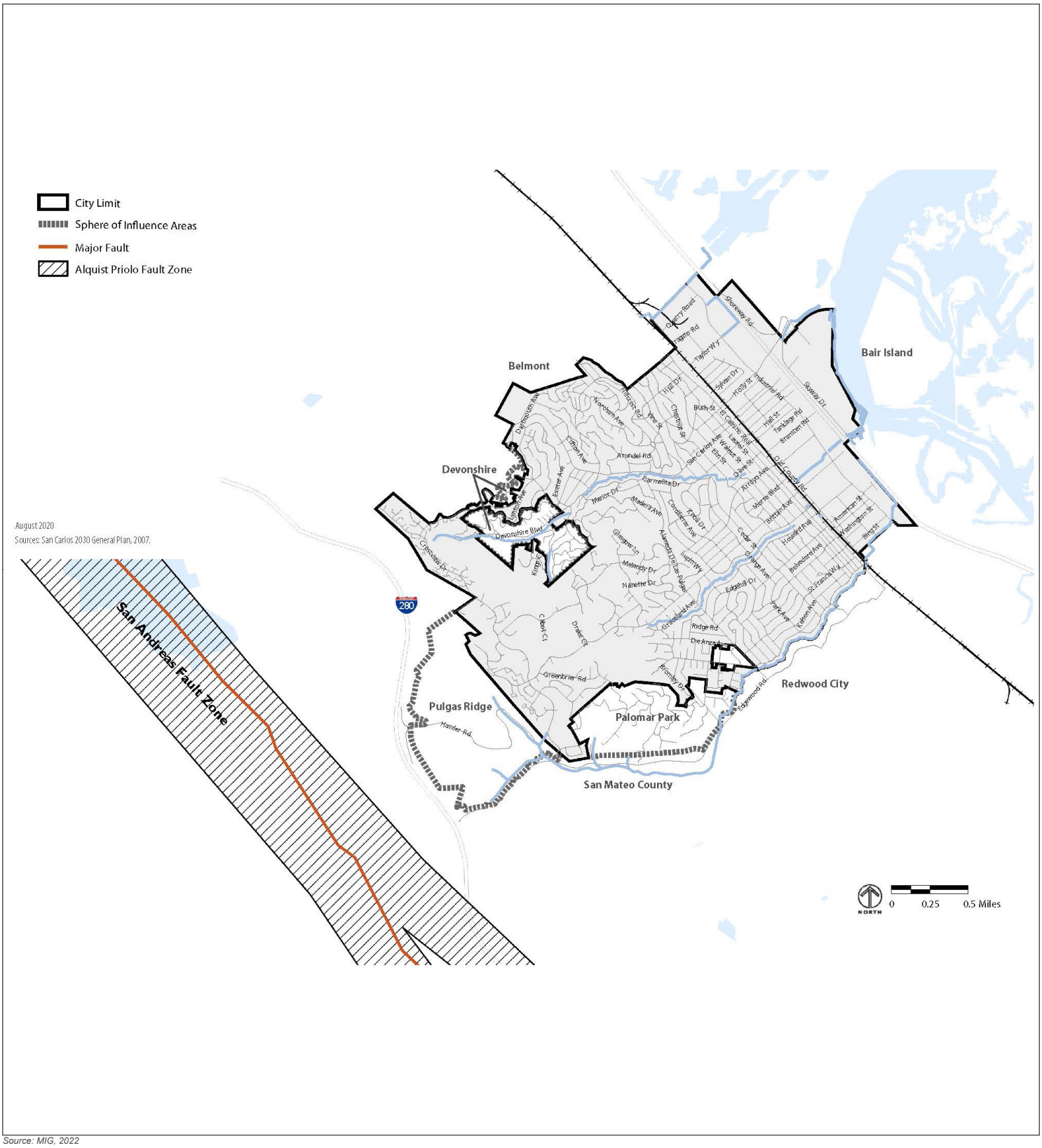
The April 1906 earthquake on the San Andreas fault, estimated at approximately Moment Magnitude1 (Mw) 7.9 (M8.3 on the Richter scale), was likely the largest seismic event felt in San Carlos. Figure 4.6-1 shows the approximate position of the major fault zones in the Bay Area, historical magnitudes and location of the project area in relation to these features. Figure 4.6-2 shows the location of the San Andreas fault zone in proximity to the City. The relative lack of seismic activity since the 1989 Loma Prieta earthquake (Mw 6.9 and M7.1) suggests that the Bay Area will likely experience an earthquake of significant magnitude in the next couple of decades. The 2016 U.S. Geologic Survey (USGS) predicted a 72 percent chance of a magnitude 6.7 or greater earthquake occurring in the San Francisco Bay Area in 30 years (Langan Engineering and Environmental Services, Inc. 2020). During a major earthquake on a segment of one of the nearby faults, strong to very strong shaking would be expected to occur in the area. Strong shaking during an earthquake can result in ground failure such as that associated with fault rupture, soil liquefaction, lateral spreading, and cyclic soil densification.[2]

[2] Cyclic densification refers to seismically induced differential compaction of non-saturated granular material (sand and gravel above the groundwater table) caused by earthquake vibrations. The borings and CPTs indicate that the materials above the water table are sufficiently dense or clayey, and therefore the potential for seismic densification is low. (Langan Engineering and Environmental Services, Inc. 2020)




Source: MIG, 2022

**Figure 4.6-1** Regional Faults and Historical Earthquakes




Source: MIG, 2022

**Figure 4.6-2** San Carlos Area Faults

*Focused General Plan Update*

MIG

### Liquefaction

Liquefaction occurs when loose, saturated sandy soils lose strength and flow like a liquid during earthquake shaking. Ground settlement often accompanies liquefaction. Soils most susceptible to liquefaction are saturated, loose, silty sands, and uniformly graded sands.

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 shaking, but can also be due to improper grading, landslides, or other factors. Liquefaction potential within the project area ranges from very low to very high. Liquefaction potential in the western hilly areas is low, while the flatlands and bay margins area have high liquefaction potential. Figure 4.6-3 shows the locations of the various liquefaction potential zones within the project area.

### Landslides

Landslides are downward and outward movements of slope-forming materials such as rock, soil and/or artificial fill. The general characteristics that influence landslide hazards include slope material, slope steepness, water content, vegetation coverage and proximity to areas of erosion or man-made cuts.

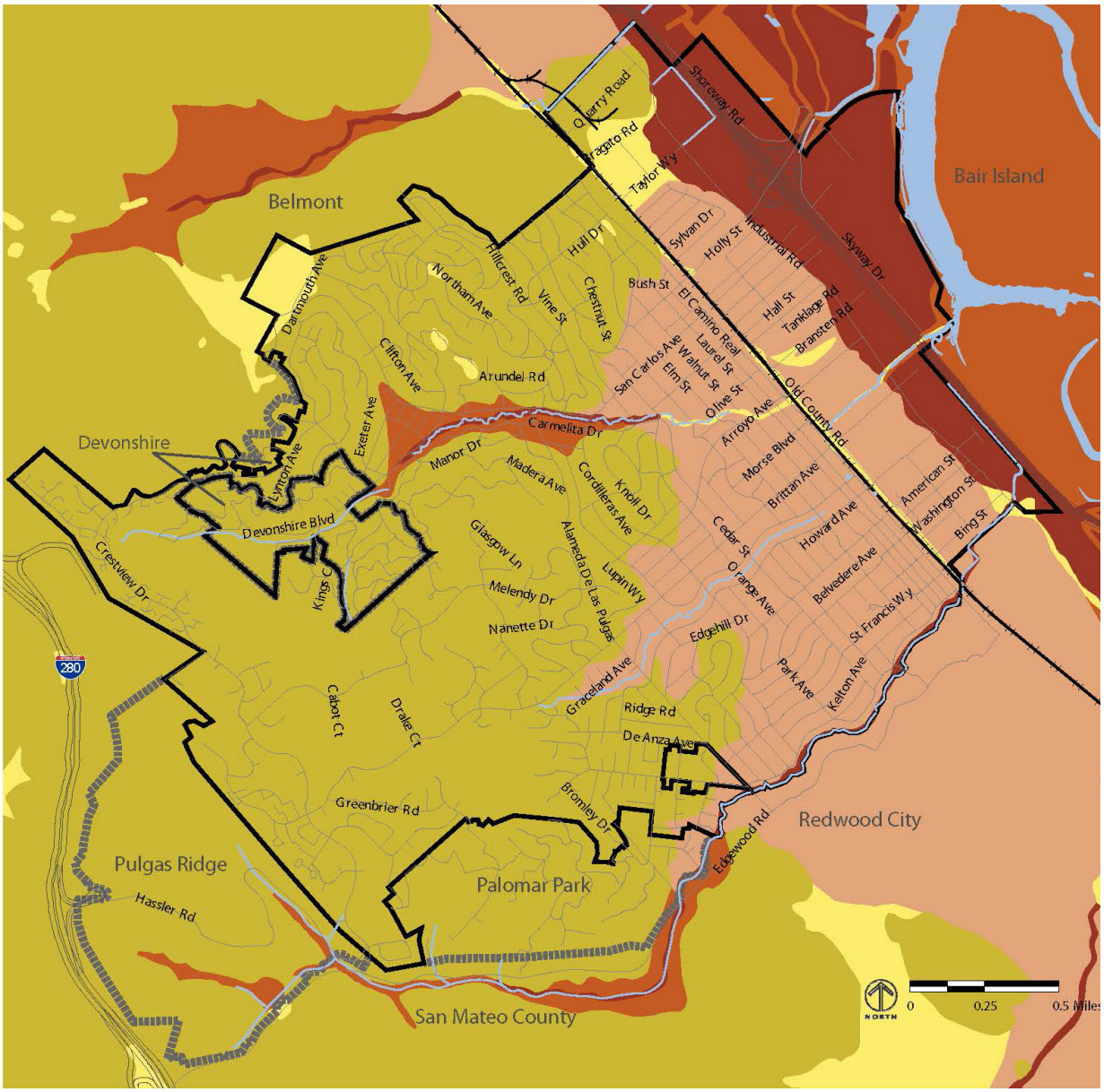
The best predictor of where slides might occur is the location of past movements. Landslides occur on some of the upper hilly slopes, more commonly in the northwestern area of the City. Figure 8-8 of the proposed Environmental Safety and Public Services Element shows the landslide hazard areas in San Carlos. Differences in the physical characteristics of slope materials, which markedly influence landslide potential, vary widely in terms of landslide hazards.

### Lateral Spreading

Lateral spreading involves lateral ground movements caused by seismic shaking. These lateral ground movements are often associated with a weakening or failure of an embankment or soil mass overlying a continuous layer of liquefied sand or weak soils. Lateral spreading is generally the most pervasive and damaging type of liquefaction-induced ground failure generated by earthquakes.

### Expansive Soils

Expansive soils contain higher levels of clay which expand and shrink depending on water content. Consequently, expansive soils present hazards for structures that were not appropriately engineered. The only expansive soils found in the city are located in the northwestern hills and the western hills near Interstate 280 (I-280), and areas within the SOI but outside of the city limit. These expansive soils are technically referred to as Maymen loams and are classified as having low expansion potential. The areas of the City containing expansive soils are shown in Figure 8-7 in the proposed Environmental Safety and Public Services Element.




August 2020
Sources: San Carlos 2030 General Plan, 2007.

*Source: MIG, 2022*

**Figure 4.6-3** Liquefaction Potential

*Focused General Plan Update*

### Subsidence

Subsidence is the gradual or sudden sinking of an area of land due to removal or displacement of subsurface earth materials. Subsidence in California is caused by lowered groundwater tables due to groundwater pumping or prolonged drought, drainage, compression of organic soils or mud, underground mining, and natural compaction or collapse. The effects of subsidence include damage to buildings and infrastructure. Sea level rise may lead to increased saturation of the underlying soils along the shoreline, increasing rates and risk of subsidence in eastern San Carlos. Shoreline roads, including Hwy 101, and infrastructure located beneath roads are at an increased risk of damage or failure due to subsidence exacerbated by sea level rise.

### Soil Erosion

Erosion is a natural process that occurs over time and can be caused by either wind or water moving over soils. The natural erosion process is an important factor in building up fertile valley soils. However, soil erosion can become a problem when human activities accelerate the rate at which soils are being displaced. Non-point sources including impervious surfaces, unsound farming practices, over-grazing, construction activities, and road construction (particularly unpaved roads) can all accelerate the rate at which soils are removed from hillsides. Point sources such as industrial wastewater discharges, mining activities, wastewater treatment plants, commercial and residential land uses, and agricultural operations can affect erosion rates through increased storm water velocity, disturbance of natural drainage patterns, and water discharges. Soil erosion can leave silt-choked streams, gullied hillsides, and damaged farmland. Erosion may be a concern in the project area, especially during initial grading stages of future development under the proposed project.

### Paleontological Resources

Paleontology is a branch of geology that studies the life forms of the past, especially prehistoric life forms, through the study of plant and animal fossils. Paleontological resources represent a limited, non-renewable, and impact-sensitive scientific and educational resource. As defined in this section, paleontological resources are the fossilized remains or traces of multi-cellular invertebrate and vertebrate animals and multi-cellular plants, including their imprints, from a previous geologic period.

Fossil remains such as bones, teeth, shells, and leaves are found in the geologic deposits (rock formations) where they were originally buried. Paleontological resources include not only the actual fossil remains, but also the collecting localities, and the geologic formations containing those localities. Paleontological resources preserve an aspect of Northern California's scientific prehistory that is important in understanding the development of the region as a whole.

Protection of potential paleontological resources can be achieved by estimating the probability of finding such resources in the project area, looking for formations in which they occur, and taking precautions, such as construction monitoring in areas with equivalent or similar formations, to avoid damaging sites.

### 4.6.2 Regulatory Setting

#### Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act regulates development in California near known active faults due to hazards associated with surface fault ruptures. There are no Alquist-Priolo earthquake fault zones within the project area, although there is one near San Carlos, encompassing the area around the San Andreas fault where it passes through the Santa Cruz Mountains and Crystal Springs Reservoir, west of the City.

Seismic Hazard Mapping Act

The Seismic Hazard Mapping Act was passed in 1990 following the Loma Prieta earthquake to reduce threats to public health and safety and to minimize property damage caused by earthquakes. The act directs the U.S. Department of Conservation to identify and map areas prone to the earthquake hazards of liquefaction, earthquake-induced landslides, and amplified ground shaking. The act requires site-specific geotechnical investigations to identify potential seismic hazards and formulate mitigation measures prior to permitting most developments designed for human occupancy within the Zones of Required Investigation.

#### California Building Code

The 2019 California Building Codes (CBC) covers grading and other geotechnical issues, building specifications, and non-building structures.

#### California Public Resources Code

Section 5097 of the Public Resources Code specifies the procedures to be followed in the event of the unexpected discovery of historic, archaeological, and paleontological resources, including human remains, historic or prehistoric resources, paleontological resources on nonfederal land. The disposition of Native American burials falls within the jurisdiction of the California Native American Heritage Commission (NAHC). Section 5097.5 of the Code states the following:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

#### City of San Carlos General Plan

Government Code Section 65302.1 requires that a Safety Element be included in every General Plan which establishes policies and programs for the protection of the community from fires, flooding, geologic and other natural and human caused hazards. The following are the relevant

policies and actions contained in the existing General Plan's 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.

*Policy CSS-1.9:* Continue to ensure that seismic hazards are mitigated to the greatest extent possible for critical public facilities, infrastructure and emergency services.

These 2009 General Plan policies appear in the proposed Environmental Safety and Public Services (ESPS) Element, with an updated numbering convention "ESPS" in place of "CSS." See impact discussion below.

**City of San Carlos Municipal Code**

The City of San Carlos Municipal Code contains the following sections, which may be applicable to the proposed project:

*12.08.165 Grading—Seasonal prohibitions*

Grading shall be prohibited during the rainy season as defined in the Municipal Regional Permit, unless the City Engineer or his/her designee finds that the land disturbance is relatively minor and that erosion can be easily controlled, or is a necessary and integral part of an interim plan for previously initiated project phases, or is necessary to prevent an imminent threat to public safety as determined by the City Engineer or his/her designee.

*12.08.180 Grading—Drainage restrictions*

No grading shall be conducted in such a manner as to alter the established gradient of natural drainage channels in such a manner as to cause excessive erosion or flooding

*12.08.190 Grading—Slopes and banks*

A. The exposed or finished banks or slopes of any fill or excavation shall be uniformly graded, and no such slope, bank or inclined graded surface shall exceed a vertical height of thirty feet unless intercepting drains or terraces are provided. Such drains or terraces shall be permanently lined or protected with approved materials, and accumulating surface waters shall be conducted to an approved point of discharge. Berms shall be provided to prevent overflow from any such terrace or intercepting drain.

B. All exposed or finished banks or slopes of any fill or excavation having a slope steeper than three horizontal to one vertical shall be protected from erosion by approved planting, cribbing, walls or terracing, or a combination thereof. Other unprotected graded surfaces exceeding five thousand square feet in area shall be planted, paved or built upon, or shall be provided with berms and approved drainage facilities adequate to prevent erosion and to conduct the accumulation or runoff of surface waters to an approved place of discharge (San Carlos 2021).

### 4.6.3 Thresholds of Significance

Per the CEQA Guidelines, implementation of the project would have a significant impact related to geology and soils if it would:

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

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

2. Strong seismic ground shaking;

3. Seismic-related ground failure, including liquefaction; or

4. Landslides;

    a. Result in substantial soil erosion or the loss of topsoil;

    b. 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;

    c. 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; or

d. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

e. Directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

### 4.6.4 Impacts and Mitigation Measures

This section describes potential impacts which could result from the implementation of the project and recommends mitigation measures as needed to reduce significant impacts. Unless otherwise noted, impact discussions apply to both the Housing Element and Environmental Safety and Public Services Element aspects of the project.

***Impact GEO-1: the project would not directly or indirectly cause potential substantial adverse effects involving faults, liquefaction, or seismic-related ground failure. (Less Than Significant Impact)***

Due to its location and physical conditions, future development in the project area would be subject to geologic and seismic constraints, which may represent a potentially significant impact on future structures. The most serious constraints would be related to the City's proximity to major earthquake faults and liquefaction potential. Strong groundshaking could be expected to occur in the western portion of the City, closer to the active San Andrea fault system, which is located approximately one mile west of the City. As shown on Figure 4.6-3, the liquefaction danger increases from Very Low in the central and western portions of the City to Medium in the denser residential neighborhoods in the eastern portion of the City west of El Camino Real and the industrial areas of the City east of El Camino Real. The danger level is rated High and Very High for the some of the narrow creek corridors and surrounding residential areas on the west side of El Camino Real, and Very High for areas east of Industrial Road to US 101. The majority of increased residential density resulting from the project would be expected in the areas mapped as having the Medium danger rating.

Provided below are the applicable goals, policies and actions from the proposed Environmental Safety and Public Services Element related to seismic safety for the City.

*Goal ESPS-1:* Reduce the potential loss of life, injury, and property damage due to seismic and geologic hazards.

> *Policy ESPS-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 ESPS-1.2:* Prohibit structural development in known areas where seismic and geological hazards cannot be mitigated.

*Policy ESPS-1.3:* Continue to monitor and enforce mitigation measures to reduce risk for projects where geological and seismic hazards can be mitigated.

*Policy ESPS-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 ESPS-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.

*Policy ESPS-1.6:* Continue to encourage retrofitting of structures, particularly older buildings, to withstand earthquake shaking and landslides, consistent with state Building Codes and Historic Building Codes.

*Policy ESPS-1.7:* Continue to incorporate geotechnical hazard data into future land use decision- making, site design, and construction standards.

*Policy ESPS-1.8:* Actively promote public education, research, and information dissemination on seismic and geotechnical hazards.

*Policy ESPS-1.9:* Continue to ensure that seismic hazards are mitigated to the greatest extent possible for critical public facilities, infrastructure, and emergency services.

*Action ESPS-1.1:* Continue to review the General Plan, Zoning Ordinance, Subdivision Ordinance, and Uniform Building Code to ensure that geotechnical data and information relating to seismic hazards is current and accurate.

*Action ESPS-1.2:* Continue to enforce the City of San Carlos Unreinforced Masonry Seismic Retrofit Program ordinance for any existing unreinforced masonry structures that may exist within the city.

*Action ESPS-1.3:* Provide opportunity for voluntary retrofit of existing residential buildings by implementing the Standard Plan Set for Residential Seismic Retrofitting as adopted by ABAG.

In addition to the Environmental Safety and Public Services Element, the State Building Code (SBC) has guidelines on building design and construction based on seismic constraints and expected groundshaking throughout California.

Site-specific geotechnical analyses will be required to accurately assess potential seismic and geologic hazards at any specific project location. In addition, stringent City grading and building codes and slope landscaping requirements are in place to address landslide potential, and soils

studies and remediation measures for any problems are required prior to the issuance of grading and building permits.

With implementation of these Environmental Safety and Public Services Element goals, policies and actions, State Building Code requirements and City grading and building permit requirements, potential impacts related to geologic and seismic constraints on future development within the project area would be less than significant.

***Impact GEO-2: The project would not result in substantial soil erosion or the loss of topsoil. (Less Than Significant Impact)***

The northwestern portion of the City contains some steep slopes that would be subject to erosion as well as the banks of several creek within the City. The flatter portions of the City, making up the majority of the project area, are also subject to erosion by wind and water where native soils are left exposed during periods of high wind or strong storms. As a result, local soils may be subject to erosion or loss of topsoil as future development under the proposed project occurs on vacant land or where reconstruction of existing development occurs.

The City's existing General Plan and the proposed Environmental Safety and Public Services Element contain policies related to erosion, including Policy ESPS-1.1, which requires the City Building Official to verify geotechnical and soils reports for development in areas where potentially serious geologic risks, including erosion, exist. Also included is Policy ESPS-1.7, in which the City will "Continue to incorporate geotechnical hazard data into future land use decision-making, site design, and construction standards." In addition to these policies, future development projects must comply with regulatory permitting requirements of multiple regional and state agencies. For example, development sites that disturb one or more acres of ground must comply with the statewide Construction General Permit, which requires that project proponents prepare a Storm Water Pollution Prevention Plan (SWPPP) for short-term construction-related water quality impacts and file of Notice of Intent with the SWRCB (see Section 4.9 Hydrology and Water Quality). Project proponents must also comply with the City's grading permit requirements which include the preparation of erosion and sediment control plans to control soil erosion and sedimentation impacts during the construction phases of new or redevelopment projects. New and redevelopment projects in the City must also comply with Provisions 12.08.165, 12.08.180 and 12.08.190 of the City of San Carlos Municipal Code, described above, to address potential grading impacts during construction.

With implementation of these General Plan goals and policies, water quality regulatory permitting requirements, City grading permit and Municipal Code grading requirements, potential impacts related to erosion from future development within the project area would be less than significant.

***Impact GEO-3: The project would not directly or indirectly cause potential substantial adverse effects involving landslides or be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project. (Less Than Significant Impact)***

As previously indicated, the project area contains steep topography, primarily in the northwest portion of the City. Other areas containing steeper slopes occur in the western part of the City, as well. These areas are mapped as having Moderate to High susceptibility to deep-seated landslides, according to the proposed Environmental Safety and Public Services Element. It is possible that future events could trigger landslides in these areas, however, the majority of the area where the future growth anticipated by the project is expected to occur, is located in the flatter portions of the City having Low or no susceptibility to deep-seated landslides as mapped.

While future development within the city limit and SOI could expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, from seismically induced landslides in certain areas, it is estimated that over 80 percent of the city slopes gently eastward toward the San Francisco Bay, with no unstable slopes.[3] The potential impacts from slope instability is considered to be low, however, because unstable slopes could be encountered in upland areas during future construction projects. Adherence to Policy ESPS-1.1 in the City's General Plan and proposed Environmental Safety and Public Services Element and conformance with State Building Code requirements would reduce this impact to a less-than-significant level.

***Impact GEO-4: The project would not involve soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water. (Less Than significant Impact)***

California law (Water Code §13263) requires formal authorization to discharge waste such as sewage. Authorization can be in the form of Water Board permits (called waste discharge requirements) or a waiver. The Water Board also specifies criteria for siting, design, construction, maintenance and management of onsite wastewater systems to ensure protection of water quality. These specifications are implemented at the local level by the San Mateo County Health Department, including suitability of soils for supporting the use of septic tanks or alternative waste water disposal systems. Percolation testing is required to determine the adequacy of the soils.

The State Building Code (SBC) has general guidelines on infrastructure design and construction based on soil conditions and limitations in California. During the City's existing development review process, proposed private projects are evaluated against the soil design constraints of the SBC, including those requiring septic or alternative wastewater treatment systems. The City typically requires this information be provided in a soils constraints or geotechnical constraints report signed by a registered engineer or geologist.

It is not anticipated that future new or redevelopment projects within the project area would require the construction or use of septic tanks or alternative wastewater disposal systems. Wastewater generated by such projects would be conveyed to the municipal sanitary sewer system that is maintained and operated by the City of San Carlos Public Works Department. In addition to serving areas within the City, the Public Works wastewater system also serves several outside

[3] City of San Carlos. City of San Carlos Draft 2030 General Plan Update EIR. 2009.

sewer districts including Devonshire Canyon, Scenic Heights, Emerald Lake and the unincorporated portion of the Harbor Industrial Area. Properties in these areas are subject to an Outside Sewer Service Agreement with the City of San Carlos. Some of those properties may be relying of septic tanks.

With implementation of General Plan policies, the State Building Code, and San Mateo County Health Department requirements, potential impacts related to soil constraints, including soils not capable of accommodating septic systems where proposed for future development within the project area, would be less than significant.

***Impact GEO-5: The project could potentially impact unique paleontological resources or sites or unique geological features. However, implementation of the City's development review process would reduce impacts to a less than significant level. (Less Than Significant Impact)***

**Less than Significant Impact**

The proposed project could result in excavation and earth moving activities for future new or redevelopment projects that could involve excavation into previously undisturbed soils. Such projects could therefore have the potential to encounter previously undisturbed paleontological resources. The City's development review process, including CEQA analysis, requires research and technical analysis to determine if a site contains identified or possible paleontological or unique geologic resources. Implementation of this review process would ensure that future development projects properly analyze potential impacts to paleontological resources and include appropriate mitigation to reduce potential impacts to less than significant levels.

### 4.6.5 References

City of San Carlos. City of San Carlos Draft 2030 General Plan Update EIR. 2009.

Langan Engineering and Environmental Services, Inc. Geotechnical Investigation – Alexandria District Phase 2, San Carlos, California. 2021.

San Mateo County Health Department. Land Use, Septic Systems and Water Wells. Accessed on August 11, 2022 at: https://www.smchealth.org/landuse#:~:text=If%20you%20live%20in%20an,into%20a%20large%20underground%20tank.

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# 4.7 GREENHOUSE GASES

This EIR chapter describes the existing environmental and regulatory greenhouse gas (GHG) setting of the project area and evaluates the project's potential GHG emissions impacts. The analysis focuses on impacts as a result of the proposed Housing Element update. The proposed Environmental Safety and Public Services Element and remaining other project components will not have an appreciable effect on greenhouse gases. Information on existing GHG emissions levels and applicable Federal and State regulations was obtained from the U.S. Environmental Protection Agency (U.S. EPA), California Air Resources Board (CARB), and BAAQMD.

## 4.7.1 Environmental Setting

### Climate Change

Climate change is the distinct change in measures of climate over a long period of time. Climate change can result from natural processes and from human activities. Natural changes in the climate can be caused by indirect processes, such as changes in the Earth's orbit around the Sun, or direct changes within the climate system itself (i.e., changes in ocean circulation). Human activities can affect the atmosphere through emissions of gases and changes to the planet's surface. Emissions affect the atmosphere directly by changing its chemical composition, while changes to the land surface indirectly affect the atmosphere by changing the way the Earth absorbs gases from the atmosphere. The term "climate change" is preferred over the term "global warming" because "climate change" conveys the fact that other changes can occur beyond just average increase in temperatures near the Earth's surface. Elements that indicate that climate change is occurring on Earth include:

- Rising of global surface temperatures by 1.3° Fahrenheit (°F) over the last 100 years;
- Changes in precipitation patterns;
- Melting ice in the Arctic;
- Melting glaciers throughout the world;
- Rising ocean temperatures;
- Acidification of oceans; and
- Range shifts in plant and animal species.

Climate change is intimately tied to the Earth's greenhouse effect. The greenhouse effect is a natural occurrence that helps regulate the temperature of the planet, and without it, life as we know it on Earth would not exist. Since the beginning of the industrial revolution (approximately 150 years), human activities have been adding to the natural greenhouse effect by increasing the gases

in the atmosphere that "trap" energy, thereby contributing to an average increase in the Earth's temperature. Human activities that enhance the greenhouse effect are detailed below.

## Greenhouse Gases

Gases that "trap" heat in the atmosphere and affect regulation of the Earth's temperature are known as "greenhouse gases." Many chemical compounds in the Earth's atmosphere exhibit the GHG property. GHGs allow sunlight to enter the atmosphere freely. When the sunlight strikes the Earth's surface, it is either absorbed or reflected back toward space. Earth, or materials near the Earth's surface, that have absorbed energy from sunlight warm up during the daytime and emit infrared radiation back toward space during both the daytime and nighttime hours. GHGs absorb this long-wave, infrared radiation and help keep the energy in the Earth's atmosphere.

GHGs that contribute to climate regulation are a different type of pollutant than criteria or hazardous air pollutants because climate regulation is global in scale, both in terms of causes and effects. Some GHGs are emitted to the atmosphere naturally by biological and geological processes such as evaporation (water vapor), aerobic respiration (carbon dioxide, or $CO_2$), and off-gassing from low-oxygen environments such as swamps or exposed permafrost (methane or $CH_4$). However, GHG emissions from human activities such as fuel combustion (e.g., $CO_2$) and refrigerants use (e.g., hydrofluorocarbons, or HFCs) significantly contribute to overall GHG concentrations in the atmosphere, climate regulation, and global climate change. Human production of GHGs has increased steadily since pre-industrial times (approximately pre-1880), and atmospheric $CO_2$ concentrations have increased from a pre-industrial value of 280 parts per million (ppm) in the early 1800s to approximately 419 ppm in April 2021(NOAA, 2021). The effects of increased GHG concentrations in the atmosphere include increasing shifts in temperature and precipitation patterns and amounts, reduced ice and snow cover, sea level rise, and acidification of oceans. These effects in turn impact food and water supplies, infrastructure, ecosystems, and overall public health and welfare.

The 1997 United Nations' Kyoto Protocol international treaty set targets for reductions in emissions of four specific GHGs—$CO_2$, $CH_4$, nitrous oxide ($N_2O$), and sulfur hexafluoride ($SF_6$)—and two groups of gases—HFCs and perfluorocarbons (PFCs). These GHGs are the primary GHG emitted into the atmosphere by human activities. Water vapor is also a common GHG that regulates the Earth's temperature; however, the amount of water vapor in the atmosphere can change substantially from day to day, whereas other GHG emissions remain in the atmosphere for longer periods of time. Black carbon consists of particles emitted during combustion; although a particle and not a gas, black carbon also acts to trap heat in the Earth's atmosphere. The most common GHGs are described below.

- **Carbon Dioxide ($CO_2$)** is emitted and removed from the atmosphere naturally. Animal and plant respiration involves the release of $CO_2$ from animals and its absorption by plants in a continuous cycle. The ocean-atmosphere exchange results in the absorption and release of $CO_2$ at the sea surface. $CO_2$ is also released from plants during wildfires. Volcanic eruptions release a small amount of $CO_2$ from the Earth's crust. Human activities that affect

$CO_2$ in the atmosphere include burning of fossil fuels, industrial processes, and product uses. Combustion of fossil fuels used for electricity generation and transportation are the largest source of $CO_2$ emissions in the United States. When fossil fuels are burned, the carbon stored in them is released into the atmosphere entirely as $CO_2$. Emissions from industrial activities also emit $CO_2$ such as cement, metal, and chemical production and use of petroleum produced in plastics, solvents, and lubricants.

- **Methane ($CH_4$)** is emitted from human activities and natural sources. Natural sources of $CH_4$ include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, soils, and wildfires. Human activities that cause $CH_4$ releases include fossil fuel production, animal digestive processes from farms, manure management, and waste management. It is estimated that 50 percent of global $CH_4$ emissions are human generated. Releases from animal digestive processes at agricultural operations are the primary source of human-related $CH_4$ emissions. $CH_4$ is produced from landfills as solid waste decomposes. $CH_4$ is a primary component of natural gas and is emitted during its production, processing, storage, transmission, distribution, and use. Decomposition of organic material in manure stocks or in liquid manure management systems also releases $CH_4$. Wetlands are the primary natural producers of $CH_4$ because the habitat is conducive to bacteria that produce $CH_4$ during decomposition of organic material.

- **Nitrous Oxide ($N_2O$)** is emitted from human sources such as agricultural soil management, animal manure management, sewage treatment, combustion of fossil fuels, and production of certain acids. $N_2O$ is produced naturally in soil and water, especially in wet, tropical forests. The primary human-related source of $N_2O$ is agricultural soil management due to use of synthetic nitrogen fertilizers and other techniques to boost nitrogen in soils. Combustion of fossil fuels (mobile and stationary) is the second leading source of $N_2O$, although parts of the world where catalytic converters are used (such as California) have significantly lower levels than those areas that do not.

- **Sulfur Hexafluoride ($SF_6$)** is commonly used as an electrical insulator in high-voltage electrical transmission and distribution equipment such as circuit breakers, substations, and transmission switchgear. Releases of $SF_6$ occur during maintenance and servicing as well as from leaks of electrical equipment.

- **Hydrofluorocarbons (HFCs) and Perfluorocarbons (PFCs)** are entirely human made and are mainly generated through various industrial processes. These types of gases are used in aluminum production, semiconductor manufacturing, and magnesium production and processing. HFCs and PFCs are also used as substitutes for ozone-depleting gases like chlorofluorocarbons (CFCs) and halons.

In 1997, the United States (U.S.) was a signatory to the Kyoto Protocol; however, the treaty was not sent to Congress for ratification. Thus, while a signatory to the Kyoto Protocol, the U.S. is not an official party to this international agreement and is not subject to any emission reductions goals established pursuant to the Kyoto Protocol. Although the U.S. is not a party to this agreement, the

GHGs targeted for reduction by the Kyoto Protocol are also targeted under federal and State GHG reporting and emissions reduction programs.

GHGs can remain in the atmosphere long after they are emitted. The potential for a particular greenhouse gas to absorb and trap heat in the atmosphere is considered its global warming potential (GWP). The reference gas for measuring GWP is $CO_2$, which has a GWP of one. By comparison, $CH_4$ has a GWP of 25, which means that one molecule of $CH_4$ has 25 times the effect on global warming as one molecule of $CO_2$. Multiplying the estimated emissions for non-$CO_2$ GHGs by their GWP determines their $CO_2$ equivalent ($CO_2e$), which enables a project's combined GWP to be expressed in terms of mass $CO_2$ emissions. The GWP and estimated atmospheric lifetimes of the common GHGs are shown in Table 4.7-1.

**Table 4.7-1: Global Warming Potential (GWP) of Common GHGs (100-Year Horizon)**

| GHG | GWP[(A)] | GHG | GWP[(A)] |
|---|---|---|---|
| Carbon Dioxide ($CO_2$) | 1 | Perfluorocarbons (PFCs) | |
| Methane ($CH_4$) | 25 | $CF_4$ | 6,500 |
| Nitrous Oxide ($N_2O$) | 298 | $C_2F_6$ | 9,200 |
| Hydrofluorocarbons (HFCs) | | $C_4F_{10}$ | 7,000 |
| HFC-23 | 14,800 | $C_6F_{14}$ | 7,400 |
| HFC-134a | 1,430 | Sulfur Hexafluoride ($SF_6$) | 22,800 |
| HFC-152a | 140 | | |
| HCFC-22 | 1,700 | | |

Source: CARB, 2014
GWPs are based on the United Nations Intergovernmental Panel on Climate Change (IPCC) 4th Assessment Report.

## Climate Change and California

The 2009 California Climate Adaptation Strategy prepared by the California Natural Resources Agency (CNRA) identified anticipated impacts to California due to climate change through extensive modeling efforts. General climate changes in California indicate that:

- California is likely to get hotter and drier as climate change occurs with a reduction in winter snow, particularly in the Sierra Nevada Mountain Range.
- Some reduction in precipitation is likely by the middle of the century.
- Sea levels will rise up to an estimated 55 inches.
- Extreme events such as heat waves, wildfires, droughts, and floods will increase.
- Ecological shifts of habitat and animals are already occurring and will continue to occur (CNRA, 2009).

It should be noted that changes are based on the results of several models prepared under different climatic scenarios; therefore, discrepancies occur between the projections and the interpretation. The potential impacts of global climate change in California are detailed below.

In January 2018, the CNRA adopted *Safeguarding California Plan: 2018 Update*, which builds on nearly a decade of adaptation strategies to communicate current and needed actions State government should take to build climate change resiliency. It identifies hundreds of ongoing actions and next steps that State agencies are taking to safeguard Californians from climate impacts within a framework of 81 policy principles and recommendations. The 2018 update also has two new chapters and incorporates a feature showcasing the many linkages among policy areas. A new "Climate Justice" chapter highlights how equity is woven throughout the entire plan (CNRA, 2018).

### Statewide GHG Emissions

CARB prepares an annual statewide GHG emission inventory using regional, State, and federal data sources, including facility-specific emissions reports prepared pursuant to the State's Mandatory GHG Reporting Program. The statewide GHG emission inventory helps CARB track progress towards meeting the State's Assembly Bill (AB) 32 GHG emissions target of 431 million metric tons of $CO_2$ equivalents ($MTCO_2e$), as well as establish and understand trends in GHG emissions.[1] Statewide GHG emissions for the 2007 to 2018 time period are shown in Table 4.7-2 (2007-2018 Statewide GHG Emissions (Million $MTCO_2e$)).

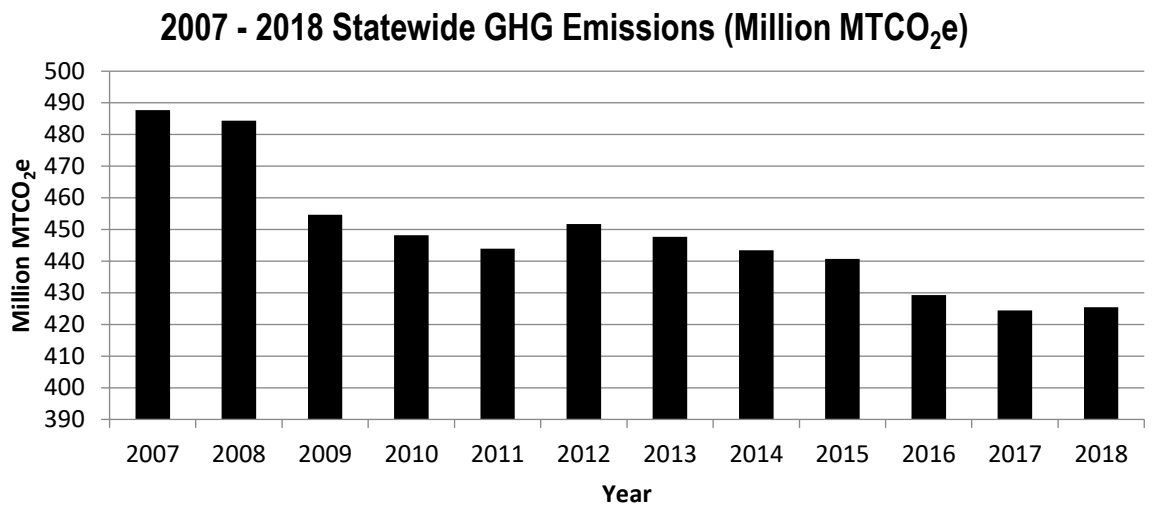
**Table 4.7-2: 2007-2018 Statewide GHG Emissions (Million MTCO2e)**

| | Year | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Scoping Plan Sector** | **'07** | **'08** | **'09** | **'10** | **'11** | **'12** | **'13** | **'14** | **'15** | **'16** | **'17** | **'18** |
| Agriculture | 35 | 35 | 33 | 34 | 34 | 36 | 34 | 35 | 33 | 33 | 32 | 33 |
| Commercial/Residential | 44 | 44 | 45 | 46 | 46 | 44 | 44 | 38 | 39 | 41 | 41 | 41 |
| Electric Power | 114 | 120 | 101 | 90 | 89 | 98 | 91 | 89 | 85 | 69 | 62 | 63 |
| High GWP | 11 | 12 | 12 | 14 | 15 | 16 | 17 | 18 | 19 | 19 | 20 | 21 |
| Industrial | 90 | 90 | 87 | 91 | 89 | 89 | 92 | 92 | 90 | 89 | 89 | 89 |
| Recycling and Waste | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| Transportation | 186 | 175 | 168 | 165 | 162 | 161 | 161 | 163 | 166 | 170 | 171 | 170 |
| **Total Million $MTCO_2e$[(A)]** | **488** | **484** | **455** | **448** | **444** | **452** | **448** | **443** | **441** | **429** | **424** | **425** |

[1] CARB approved use of 431 million $MTCO_2e$ as the state's 2020 GHG emission target in May 2014. Previously, the target had been set at 427 million $MTCO_2e$.

**Table 4.7-2: 2007-2018 Statewide GHG Emissions (Million MTCO2e)**

| Scoping Plan Sector | Year | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | '07 | '08 | '09 | '10 | '11 | '12 | '13 | '14 | '15 | '16 | '17 | '18 |




Source: CARB, 2020
Totals may not equal due to rounding. CARB inventory uses GWPs based on the United Nations' IPCC's 4th Assessment Report.

As shown in Table 4.7-2, statewide GHG emissions have generally decreased over the last decade, with 2018 levels (425 million $MTCO_2e$) approximately 12 percent less than 2007 levels (488 million $MTCO_2e$) and below the State's 2020 reduction target of 431 million $MTCO_2e$. The transportation sector (170 million $MTCO_2e$) accounted for more than one-third (approximately 40 percent) of the state's total GHG emissions inventory (425 million $MTCO_2e$) in 2018.

### Existing Planning Area GHG Emissions

The existing land uses within the Planning Area contribute to existing city, regional, and statewide GHG emissions. The Planning Area's existing GHG emissions, presented below in Table 4.7-3 (Existing (2020) GHG Emissions in the Planning Area), were estimated using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0. GHG emissions generated within the Planning Area primarily come from the area, energy, and mobile sources described in Section 4.3.1, as well as the following additional sources specific to GHG emissions:

- **Energy use and consumption:** Emissions generated from purchased electricity and natural gas. As estimated using CalEEMod, the existing land uses in the Planning Area use and consume approximately 2,913 megawatt hours (MWh) of electricity per year and 58,457 million British Thermal Units (MMBtu) of natural gas per year.

- **Solid waste disposal:** Emissions generated from the transport and disposal of generated waste. CalEEMod estimates approximately 1,784 tons of solid waste are generated per year by the people working and living within the Planning Area.
- **Water/wastewater:** Emissions from electricity used to supply water to land uses and treat the resulting wastewater generated. As estimated in CalEEMod, existing land uses within the Planning Area use approximately 268 million gallons of water per year.

The Planning Area's existing GHG emissions were estimated using default emissions assumptions provided by CalEEMod and are summarized in Table 4.7-3 (Existing GHG Emissions in the Planning Area) below. As this GPU is to analyze housing impacts, the existing residential population has been used for a population. The emissions are based on Year 2040 vehicle fleet characteristics and Renewable Portfolio Standard (RPS) energy goals (60 percent renewable energy) and represent the projected emissions that existing land uses would generate in the future (assuming no increase in population or change in land uses). This scenario provides an estimate of how emissions would change in the Planning Area as a result of regulations that would reduce motor vehicle emissions in the future, and allows for distinguishing the potential change in emissions that would occur from the proposed change in land uses that would occur with implementation and buildout of the project in Year 2040, as opposed to a change in emissions that would occur from regulatory requirements that would be in place whether or not the project is adopted.

**Table 4.7-3: Existing Land Use GHG Emissions Estimates**

| Source | GHG Emissions (Metric Tons / Year) | | | |
|---|---|---|---|---|
| | $CO_2$ | $CH_4$ | $N_2O$ | Total $MTCO_2e$ |
| **Existing Land Use Operational Emissions in Year 2040 (Future Conditions)** | | | | |
| Area | 237.18 | 0.29 | 0.01 | 247.35 |
| Energy | 4,247.45 | 0.24 | 0.08 | 4,277.14 |
| Mobile | 16,594.70 | 1.15 | 0.77 | 16,851.35 |
| Waste | 362.09 | 21.40 | 0.00 | 897.06 |
| Water | 167.88 | 5.37 | 0.13 | 340.49 |
| Total Existing GHG[(A)] | 21,609.29 | 28.45 | 0.98 | 22,613.38 |
| Residential Population | | | | 10,682 |
| Existing GHG Efficiency ($MTCO_2e$ / SP) | | | | 2.12 |

Source: MD, 2022 (see Appendix D)
Totals may not equal due to rounding.

### 4.7.2 Regulatory Framework

#### International and Federal

International Regulation and the Kyoto Protocol

In 1988, the United Nations established the Intergovernmental Panel on Climate Change (IPCC) to evaluate the impacts of global warming and to develop strategies that nations could implement

to curtail global climate change. In 1992, the United States joined other countries around the world in signing the "United Nations' Framework Convention on Climate Change" agreement with the goal of controlling GHG emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The plan currently consists of more than 50 voluntary programs for member nations to adopt.

Federal Regulation and the Clean Air Act

On December 7, 2009, the U.S. EPA issued an endangerment finding that current and projected concentrations of the six Kyoto GHGs in the atmosphere ($CO_2$, $CH_4$, $N_2O$, $SF_6$, HFCs, and PFCs) threaten the public health and welfare of current and future generations. This finding came in response to the Supreme Court ruling in *Massachusetts v. EPA*, which found that GHGs are pollutants under the Federal Clean Air Act. As a result, the U.S. EPA issued its GHG Tailoring Rule in 2010, which applies to facilities that have the potential to emit more than 100,000 $MTCO_2e$. In 2014, the U.S. Supreme Court issued its decision in *Utility Air Regulatory Group v. EPA* (No. 12-1146), finding that the U.S. EPA may not treat GHGs as an air pollutant for purposes of determining whether a source is a "major" source required to obtain a permit pursuant to the "Clean Air Act's Prevention of Significant Deterioration" or "Title V" operating permit programs. The U.S. EPA's Greenhouse Gas Reporting Program requires facilities that emit 25,000 $MTCO_2e$ or more of GHG to report their GHG emissions to the U.S. EPA to inform future policy decisionmakers.

The Current Administration

Former President Trump and the U.S. EPA, during the time of the Trump administration, stated their intent to halt various federal regulatory activities to reduce GHG emissions. President Biden, who took office in January 2021, and his administration have begun to strengthen federal policy once again around GHG emissions on a national level. California and other states are still challenging some federal actions undertaken during the time of the Trump administration that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives. The timing and consequences of these types of federal decisions and potential responses from California and other states are speculative at this time.

The United States participates in the United Nations Framework Convention on Climate Change. While the United States signed the Kyoto Protocol, which would have required reductions in GHGs, Congress never ratified the protocol. The federal government chose voluntary and incentive-based programs to reduce emissions and has established programs to promote climate technology and science. In 2015, the Paris Agreement was adopted, which aims at keeping global temperature rise this century below 2 degrees Celsius above pre-industrial levels and pursuing efforts to limit temperature increase above an additional 1.5 degrees Celsius. The Agreement was signed by President Obama in April 2016, but the agreement does not contain enforcement provisions that would require U.S. Senate ratification. On November 4, 2019, Former President Trump formally began the process to leave the Paris Climate Agreement. In accordance with

Article 28 of the Paris Agreement, that process was complete on November 4, 2020. As one of his first acts in the Oval Office, President Biden signed an executive order to have the United States rejoin the Paris Climate Agreement. At this time, there are no federal regulations or policies pertaining to GHG emissions that directly apply to the project.[2]

Federal Vehicle Standards

In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the U.S. EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, U.S. EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of $CO_2$ in model year 2025, on an average industry fleetwide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking.

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

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

In August 2018, The USEPA and NHTSA released a notice of proposed rulemaking called Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (SAFE Vehicles Rule).

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[2] Though the U.S. EPA announced the Clean Power Plan on August 3, 2015, which sets standards for power plants and customizes goals for states to cut their carbon pollution, the U.S. Supreme Court stayed implementation of the Plan on February 9, 2016, pending further judicial review.

On September 27, 2019, the U.S. EPA and the NHTSA published the SAFE Vehicles Rule Part One: One National Program." (84 Fed. Reg. 51,310 (Sept. 27, 2019.) The Part One Rule revoked California's authority to set its own greenhouse gas emissions standards and set zero emission vehicle mandates in California. As a result of the loss of the zero emission vehicles (ZEV) sales requirements in California, there may be fewer ZEVs sold and thus additional gasoline-fueled vehicles sold in future years (CARB 2019b).

In April 2020, the U.S. EPA and NHTSA issued the SAFE Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (Final SAFE Rule) that relaxed federal greenhouse gas emissions and fuel economy standards. The Final SAFE Rule relaxed federal greenhouse gas emissions and Corporate Average Fuel Economy (CAFE) standards to increase in stringency at approximately 1.5 percent per year from model year (MY) 2020 levels over MYs 2021–2026. The previously established emission standards and related "augural" fuel economy standards would have achieved approximately 4 percent per year improvements through MY 2025. The Final SAFE Rule affects both upstream (production and delivery) and downstream (tailpipe exhaust) $CO_2$ emissions (CARB, 2020) and has been challenged by 23 states. The litigation is ongoing.

## State

<u>Assembly Bill 32 (California Global Warming Solutions Act) and Related GHG Goals</u>

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 establishes the caps on statewide greenhouse gas emissions proclaimed in Executive Order (EO) S-3-05 and established the timeline for meeting State GHG reduction targets. The deadline for meeting the 2020 reduction target is December 31, 2020.

As part of AB 32, CARB determined 1990 GHG emissions levels and projected a "business-as-usual" (BAU)[3] estimate for 2020, to determine the amount of GHG emission reductions that would need to be achieved. In 2007, CARB approved a statewide 1990 emissions level and corresponding 2020 GHG emissions limit of 427 million $MTCO_2e$ (CARB, 2007). In 2008, CARB adopted its *Climate Change Scoping Plan*, which projects 2020 statewide GHG emissions levels of 596 million $MTCO_2e$ and identifies numerous measures (i.e., mandatory rules and regulations and voluntary measures) that will achieve at least 174 million $MTCO_2e$ of GHG reductions and bring statewide GHG emissions to 1990 levels by 2020 (CARB, 2009).

EO B-30-15, 2030 Carbon Target and Adaptation, issued by Governor Brown in April 2015, set a target of reducing GHG emissions by 40 percent below 1990 levels in 2030. To achieve this ambitious target, Governor Brown identified five key goals for reducing GHG emissions in California through 2030:

- Increase renewable electricity to 50 percent.

[3] BAU is a term used to define emissions levels without considering reductions from future or existing programs or technologies.

- Double energy efficiency savings achieved in existing buildings and make heating fuels cleaner.
- Reduce petroleum use in cars and trucks by up to 50 percent.
- Reduce emissions of short-lived climate pollutants.
- Manage farms, rangelands, forests, and wetlands to increasingly store carbon.

By directing State agencies to take measures consistent with their existing authority to reduce GHG emissions, EO B-30-15 establishes coherence between the 2020 and 2050 GHG reduction goals set by AB 32 and seeks to align California with the scientifically established GHG emissions levels needed to limit global warming below two degrees Celsius.

To reinforce the goals established through EO B-30-15, Governor Brown signed SB 32 and AB 197 on September 8, 2016. SB 32 made the GHG reduction target (to reduce GHG emissions by 40 percent below 1990 levels by 2030) a requirement, as opposed to a goal. AB 197 gives the Legislature additional authority over CARB to ensure the most successful strategies for lowering emissions are implemented, and requires CARB to, "protect the State's most impacted and disadvantaged communities …[and] consider the social costs of the emissions of greenhouse gases."

<u>Scoping Plan</u>

The CARB Scoping Plan is the comprehensive plan primarily directed at identifying the measures necessary to reach the GHG reduction targets stipulated in AB 32. The key elements of the 2008 Scoping Plan were to expand and strengthen energy efficiency programs, achieve a statewide renewable energy mix of 33 percent, develop a cap-and-trade program with other partners (including seven states in the United States and four territories in Canada) in the Western Climate Initiative, establish transportation-related targets, and establish fees (CARB, 2009). CARB estimated that implementation of these measures will achieve at least 174 million $MTCO_2e$ of reductions and reduce statewide GHG emissions to 1990 levels by 2020 (CARB, 2009).

In a report prepared on September 23, 2010, CARB indicated 40 percent of the reduction measures identified in the Scoping Plan had been secured (CARB 2010). Although the cap-and-trade program began on January 1, 2012 (after CARB completed a series of activities dealing with the registration process, compliance cycle, and tracking system), covered entities did not have an emissions obligation until 2013. In August 2011, the Scoping Plan was reapproved by CARB with the program's environmental documentation.

On February 10, 2014, CARB released the public draft of the "First Update to the Scoping Plan." "The First Update" built upon the 2008 Scoping Plan with new strategies and recommendations, and identified opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments (CARB 2014). "The First Update" defined CARB's climate change priorities over the next five years, and set the

groundwork to reach post-2020 goals set forth in Executive Orders S-3-05 and B-16-12. It also highlighted California's progress toward meeting the 2020 GHG emission reduction goals defined in the 2008 Scoping Plan. "The First Update" evaluated how to align the State's long-term GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. "The First Update" to the Scoping Plan was approved by the Board on May 22, 2014.

The second update to the scoping plan, the 2017 Climate Change Scoping Plan update (CARB 2017), was adopted by CARB in December 2017. The primary objective for the 2017 Climate Change Scoping Plan is to identify the measures required to achieve the mid-term GHG reduction target for 2030 (i.e., reduce emissions by 40 percent below 1990 levels by 2030) established under EO B-30-15 and SB 32. The 2017 Climate Change Scoping Plan identifies an increased need for coordination among State, regional, and local governments to realize the potential for GHG emissions reductions that can be gained from local land use decisions. It notes that emissions reductions targets set by more than one hundred local jurisdictions in the state could result in emissions reductions of up to 45 million $MTCO_2e$ and 83 million $MTCO_2e$ by 2020 and 2050, respectively. To achieve these goals, the 2017 Scoping Plan Update includes a recommended plan-level efficiency threshold of six metric tons or less per capita by 2030 and no more than two metric tons per capita by 2050. The major elements of the 2017 Climate Change Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing zero emission vehicle (ZEV) buses and trucks.
- Low Carbon Fuel Standard (LCFS), with an increased stringency (18 percent by 2030).
- Implementation of SB 350, which expands the Renewable Portfolio Standard (RPS) to 50 percent 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 proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing $CH_4$ and hydrocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- 20 percent reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Senate Bill 375 (Sustainable Communities and Climate Protection Act)

California enacted legislation (SB 375) to attempt to reduce GHG emissions by modifying land use planning and approval practices. SB 375, signed in September 2008, requires metropolitan planning organizations (MPO), such as ABAG, to adopt a sustainable community strategy (SCS) or alternative planning strategy when preparing their updated Regional Transportation Plans for the purpose of reducing GHG emissions. All future transportation funding must be consistent with the SCS. The legislation also allows developers to bypass certain environmental reviews under CEQA if they build projects consistent with the new sustainable community strategies. SB 375 also directs CARB to develop regional GHG emission reduction targets to be achieved from the transportation sector for 2020 and 2035. CARB will work with the MPOs and regional planning agencies (ABAG and MTC in the Bay Area) to align their regional transportation, housing and land use plans to reduce vehicle miles traveled and attain its GHG reduction targets. However, the regional targets for reductions in GHG emissions have not yet been adopted by CARB.

SB 375 also extends the minimum time period for the regional housing needs allocation cycle from five years to eight years for local governments within an MPO that meet certain requirements. City or county land use policies, including general plans, are not required to be consistent with the regional transportation plan. However, new provisions of CEQA would incentivize qualified projects and categorize projects as transit priority projects if they are consistent with an approved SCS or alternative planning strategy.

Senate Bill 97 - Modification to the Public Resources Code

Related to AB 32, Senate Bill 97 (SB 97) required that by July 1, 2009, the California Office of Planning and Research (OPR) prepare, develop, and transmit to the Resources Agency (Natural Resource Agency) guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, including but not limited to effects associated with transportation or energy consumption. OPR transmitted draft guidelines to the Natural Resources Agency in June 2009.

Per SB 97, the draft guidelines were approved in December 2009, meeting the requirement of the Natural Resources Agency to certify and adopt the guidelines by January 1, 2010. The guidelines incorporate proposed text changes related to the significance criteria for evaluating GHG emissions on the environment. The draft guidelines were formalized on March 18, 2010 and all CEQA documents prepared after this date are required to comply with the OPR-approved amendments to the CEQA guidelines. As part of these guidelines, OPR recommends that each agency develop an approach to determining the significance of GHG emissions, based to the extent possible on scientific and factual data, that considers the following factors: (1) the extent to which the project may increase or reduce GHG emissions compared to the existing environment; (2) whether project emissions exceed a threshold of significance that the lead agency has determined applies to the project; and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for reducing or mitigating greenhouse gas emissions.

The OPR does not identify a threshold of significance for GHG emissions within the amended CEQA guidelines, nor has it prescribed methodologies or specific mitigation measures for evaluating and reducing GHG emissions. Thus, the amendments encourage lead agencies to develop their own determinations based on substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier subsequent project-level environmental review processes.

At this time, neither the City of San Carlos nor the BAAQMD have formalized a significance threshold for GHG emissions within the City or region. However, the BAAQMD released GHG thresholds in 2017 as part of the BAAQMD CEQA Air Quality Guidelines, which provide guidance on quantifying and evaluating GHG emissions.

The BAAQMD CEQA Air Quality Guidelines propose an operational-related threshold of significance for GHG emissions for plans (including General Plans) but do not propose a threshold of significance for construction-period GHG emissions. As of 2017, the BAAQMD proposed a threshold of 6.6 metric tons of $CO_2e$ per year per service population for long-range, plan-level GHG emission impacts. In other words, a plan that complied with the BAAQMD standard would result in not more than 6.6 metric tons of CO2e emissions per year per resident and employee (BAAQMD 2017).

<u>Senate Bill 350 (Clean Energy and Pollution Reduction Act) and Senate Bill 100</u>

SB 350 was signed into law in September 2015 and establishes tiered increases to the RPS. The Bill requires 40 percent of the state's energy supply to come from renewable sources 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. SB 100, signed by Governor Brown on September 10, 2018, increased the RPS requirement for 2030 from 50 percent to 60 percent.

<u>Assembly Bill 1493</u>

With the passage of AB 1493 (Pavley I) in 2002, California launched an innovative and pro-active approach for dealing with GHG emissions and climate change at the state level. AB 1493 requires CARB to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards apply to automobiles and light trucks from 2009 through 2016. Although litigation was filed challenging these regulations, and the U.S. EPA initially denied California's related request for a waiver, a waiver was granted. In 2012, the U.S. EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 among light-duty vehicles. In January 2012, CARB approved the Advanced Clean Cars (ACC) program (formerly known as Pavley II) for model years 2017 through 2025. The components of the ACC program are the Low-Emission Vehicle (LEV) regulations and the ZEV regulation. The program combines the control of smog, soot, and GHGs and requirements for greater numbers of zero-emission vehicles into a single package of standards.

Executive Order B-30-15, Senate Bill 32 & Assembly Bill 197 (Statewide Interim GHG Targets)

California EO B-30-15 (April 29, 2015) set an "interim" statewide emission target to reduce greenhouse emissions to 40 percent below 1990 levels by 2030 and directed state agencies with jurisdiction over GHG emissions to implement measures pursuant to statutory authority to achieve this 2030 target and the 2050 target of 80 percent below 1990 levels. Specifically, the EO directed CARB to update the Scoping Plan to express this 2030 target in metric tons. AB 197 (September 8, 2016) and SB 32 (September 8, 2016) codified into statute the GHG emissions reduction targets of at least 40 percent below 1990 levels by 2030 as detailed in EO B-30-15. AB 197 also requires additional GHG emissions reporting that is broken down to sub-county levels and requires CARB to consider the social costs of emissions impacting disadvantaged communities.

Executive Order B-55-18

Governor Brown issued EO B-15-18 on September 10, 2018, which directs the State to achieve carbon neutrality as soon as possible and no later than 2045, and achieve and maintain net negative emissions thereafter.

Title 24 Energy Standards

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings in 1978 in response to a legislative mandate to reduce energy consumption in the State. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental air quality." The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC).

CALGreen Code contains both mandatory and voluntary measures. For non-residential land uses there are 39 mandatory measures including, but not limited to exterior light pollution reduction, wastewater reduction by 20 percent, and commissioning of projects over 10,000 square feet. Two tiers of voluntary measures apply to non-residential land uses, for a total of 36 additional elective measures.

California's Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2019 standards, adopted May 9, 2018, became effective on January 1, 2020 and improve upon existing standards, focusing on three key areas: proposing new requirements for installation of solar photovoltaics for newly constructed low-rise residential buildings; updating current ventilation and Indoor Air Quality (IAQ) requirements, and extending Title 24 Part 6 to apply to healthcare facilities. The 2019 standards also propose several smaller improvements in energy efficiency.

Center for Biological Diversity v. California Department of Fish and Wildlife

In its decision in *Center for Biological Diversity v. California Dept. of Fish and Wildlife* (*Newhall*) 62 Cal.4th 204 (2015), the California Supreme Court set forth several options that lead agencies may consider for evaluating the cumulative significance of a proposed project's GHG emissions:

A. A calculation of emissions reductions compared to a BAU scenario based upon the emissions reductions in CARB's Scoping Plan, including examination of the data to determine what level of reduction from BAU a new land use development at the proposed location must contribute in order to comply with statewide goals.

B. A lead agency might assess consistency with AB 32's goals by looking to compliance with regulatory programs designed to reduce GHG emissions from particular activities.

C. Use of geographically specific GHG emission reduction plans to provide a basis for tiering and streamlining of project-level CEQA analysis.

D. A lead agency may rely on existing numerical thresholds of significance for GHG emissions, though use of such thresholds is not required.

**Regional**

San Carlos Climate Mitigation and Adaptation Plan

The City's Climate Mitigation and Adaptation Plan (CMAP) provides tools and encouragement for residents and local businesses to coordinate with the City to reduce GHG emissions. The CMAP, which was acknowledged by the San Carlos City Council on September 27, 2021, includes a GHG emissions inventory from the year 1990 and sets forth a GHG reduction targets for the years 2030 and 2050- a 40 percent and 80 percent decrease in GHG emissions from 1990 levels, respectively. To this end, the CAP includes a number of targeted reduction strategies.

### 4.7.3 Significance Thresholds

Per the CEQA Guidelines, implementation of the project would have a significant impact related to GHG emissions if it would:

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

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

c) Cause substantial adverse cumulative impacts with respect to greenhouse gases?

The BAAQMD Threshold of Significance for operational-related GHG impacts of plans employs either a GHG efficiency-based metric of 6.6 MT per service population (SP) per year of carbon dioxide equivalent ($CO_2e$), or a GHG Reduction Strategy option.

### 4.7.4 Impacts and Mitigation Measures

This section describes potential impacts related to GHG emissions and recommends mitigation measures, as needed, to reduce significant impacts.

***Impact GHG-1 – The project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. (Less Than Significant Impact)***

Project implementation would result in construction and operational activities that would generate GHG emissions. As described in more detail below, the GHG emissions generated by the growth envisioned under the project would exceed BAAQMD thresholds and result in a significant and unavoidable impact even with the inclusion of feasible mitigation measures.

The planned growth envisioned by the Cumulative (2040) Plus Project scenario could result in 3,688 newly built dwelling units within the Planning by 2040. This growth would result in construction activities that would generate GHG emissions primarily from fuel combustion in equipment during demolition, site preparation, grading, building construction, paving, and architectural coating activities and in worker, vendor, and haul trips to and from future development projects. Construction activities would occur intermittently at different sites within the Planning Area over the next approximately 20 years. Generally, the BAAQMD recommends amortizing construction GHG emissions over a 30-year period since construction activities for a project typically only occur towards the start of a project and cease to emit GHGs upon the completion of construction activities. This normalizes construction emissions so that they can be grouped with operational emissions and compared to appropriate thresholds, plans, etc. As described under Impact AIR-2, there is uncertainty regarding the timing and methods of construction activities that would occur for future development projects. Construction activities would cease to emit GHGs upon completion, unlike operational emissions that would be continuous year after year until the project is decommissioned. For reasons discussed in Impact AIR-2, construction emissions were not estimated for the proposed project.

The existing and proposed land uses envisioned by the project would result in operational GHG emissions, primarily from mobile, energy, and area sources. Mobile sources, including vehicle trips to and from land uses within the Planning Area, would result primarily in emissions of $CO_2$,

with emissions of $CH_4$ and $NO_2$ also occurring in minor amounts. In addition to mobile sources, GHG emissions would also be generated from natural gas usage, electricity use, water conveyance and use, wastewater treatment, and solid waste disposal. Natural gas use would result in the emission of two GHGs: $CH_4$ (the major component of natural gas) and $CO_2$ (from the combustion of natural gas). Electricity use associated with both the physical usage of the development, as well as the energy needed to transport water/wastewater, would result in the production of GHGs if the electricity is generated through non-renewable sources (i.e., combustion of fossil fuels). Solid waste generated by land uses within the Planning Area would contribute to GHG emissions in a variety of ways. Landfills and other methods of disposal use energy when transporting and managing the waste. In addition, landfills, the most common waste management practice, results in the release of $CH_4$ from the decomposition of organic materials.

Potential operational GHG emissions resulting from operation of the land uses proposed by the Cumulative (2040) Plus Project scenario were estimated using CalEEMod, Version 2020.4.0. The modeling assumes project growth consistent with the land use development intensities described in Impact AIR-2. The modeling is based on default data assumptions contained in CalEEMod, with the project-specific modifications described under Impact AIR-2.

The total unmitigated GHG emissions estimated to occur under projected 2040 growth conditions are shown below in Table 4.7-4 and compared against the potential GHG emissions that could exist in 2040 with the existing Cumulative (2040) scenario. As described above, the BAAQMD recommends the use of an efficiency threshold for plan-level analysis in which potential emissions levels are considered in terms of how many GHG emissions would be produced by each resident and employee using a project's facilities. Thus, the plan-level threshold of 6.6 $MTCO_2e$/yr/SP is the primary contextual factor considered in evaluating the significance of the project's GHG emissions changes.

**Table 4.7-4: Unmitigated Project GHG Emissions**

| Source | GHG Emissions ($MTCO_2e$ / Year) | | |
|---|---|---|---|
| | Cumulative (2040)[(A)] | Cumulative (2040) Plus Project | Net Change |
| Area | 247.35 | 292.95 | 46 |
| Energy | 4,277.14 | 3,622.89 | -654 |
| Mobile | 16,851.35 | 16,549.43 | -302 |
| Waste | 897.06 | 852.93 | -44 |
| Water | 340.49 | 497.97 | 157 |
| Total[(B)] | 22,613.38 | 21,816.16 | -797 |
| Residential Population | 10,682 | 13,480 | 2,798 |
| $MTCO_2e$/yr/SP | 2.12 | 1.62 | -0.50 |
| BAAQMD Plan Level Significance Threshold | -- | 6.6 | -- |
| **Exceeds Threshold?** | **--** | **No** | **--** |

Source: MD Acoustics (see Appendix D).
See Table 4.8-3 for existing GHG emissions in the Planning Area.
Totals may not equal due to rounding.

As shown above in Table 4.7-4, in the Cumulative (2040) Plus Project scenario the Planning Area would emit approximately 21,816 $MTCO_2e$ annually by 2040. Dividing through by the Planning Area's residential population (13,480 residents) results in an efficiency metric of 1.62 $MTCO_2e$/yr/SP for the Cumulative (2040) Plus Project scenario. This does not exceed the BAAQMD threshold and shows a reduction from existing and future baseline conditions (the GHG efficiency occurring under the Cumulative (2040) Plus Project scenario would be approximately 24 percent less than Cumulative (2040) scenario conditions).

The primary source of project GHG emissions would be mobile sources, which represent approximately 76 percent of total annual GHG emissions occurring under Cumulative (2040) Plus Project growth conditions. The unmitigated mobile source emission estimates are conservative, since they do not take into account land use interactions (e.g., residential land use proximity to commercial land uses) and transit amenities (e.g., bus routes) that would likely reduce the number of vehicle trips generated in the Planning Area and the quantity of VMT occurring with the project in 2040. The next highest source of project GHG emissions would be energy sources, which would represent approximately 17 percent of total annual GHG emissions.

As shown in Table 4.7-4, the Cumulative (2040) Plus Project growth projection would result in GHG emissions that would not exceed the BAAQMD plan-level significance threshold and would therefore have a less than significant impact.

***Impact GHG-2 – The proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing the emissions of greenhouse gases. (Less Than Significant Impact)***

**CARB Scoping Plan**

As discussed in Section 4.8.2, the 2017 Climate Change Scoping Plan is CARB's primary document used to ensure State GHG reduction goals are met. The plan identifies an increasing need for coordination among State, regional, and local governments to achieve the GHG emissions reductions that can be gained from local land use planning and decisions. The major elements of the 2017 Climate Change Scoping Plan, which is designed to achieve the State's 2030 GHG reduction goal, are listed in Section 4.8.2. Nearly all of the specific measures identified in the 2017 Climate Change Scoping Plan would be implemented at the state level, with CARB and/or another state or regional agency having the primary responsibility for achieving required GHG reductions. The project, therefore, would have limited ability to directly conflict with any of the specific measures identified in the 2017 Climate Change Scoping Plan. Nonetheless, the overarching goal of the 2017 Climate Change Scoping Plan is to achieve a 40 percent reduction in GHG emissions below 1990 levels by the Year 2030. To achieve this statewide goal, the 2017 Climate Change Scoping Plan recommends a statewide efficiency metric of six metric tons per capita by 2030 and two metric tons per capita by 2050. These statewide per capita targets are based on the statewide GHG emissions inventory that includes all emissions sectors in the State. Under an unmitigated scenario as shown in Table 4.7-4, implementation of the proposed project is estimated to result in a GHG emission efficiency of 3.9 $MTCO_2e$ per capita. Project growth would result in emissions

that meet the 2017 Climate Change Scoping Plan adjusted statewide 2040 metric of four $MTCO_2e$ per capita employed for this EIR.[4]

As discussed above, the project's unmitigated GHG emissions would be consistent with the CARB Scoping Plan's interpolated per capita GHG efficiency metric and would have a less than significant impact.

***Impact GHG-3 – The project would not cause substantial adverse cumulative impacts with respect to greenhouse gases. (Less Than Significant Impact)***

As stated in Section 4.8.4, global climate change is the result of GHG emissions worldwide; individual projects do not generate enough GHG emissions to influence global climate change. Thus, the analysis of GHG emissions is by nature a cumulative analysis focused on whether an individual project's contribution to global climate change is cumulatively considerable. As described under Impact GHG-1 and GHG-2, the project would result in GHG emissions that do not exceed the significance thresholds applied in this EIR and comply with the 2017 Climate Change Scoping Plan.

### 4.7.5 References

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[4] The Project plans for growth through Year 2040. Therefore, the 2040 statewide efficiency metric is linearly derived from the State's 2030 (6 $MTCO_2e$ per capita) and 2050 (2 $MTCO_2e$ per capita) targets.

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| List of Acronyms, Abbreviations, and Symbols | |
|---|---|
| **Acronym, Symbol, Abbreviation** | **Description** |
| AB | Assembly Bill |
| ACC | Advanced Clean Cars |
| BAU | Business-As-Usual |
| CalEEMod | California Emissions Estimator Model |
| CALGreen | California Green Building Standards Code |
| CAP | Climate Action Plan |
| CAPCOA | California Air Pollution Control Officers Association |
| CARB | California Air Resources Board |
| CBSC | California Building Standards Commission |
| CEC | California Energy Commission |
| CFC | Chlorofluorocarbon |
| $C_H4$ | Methane |
| CNRA | California Natural Resources Agency |
| $CO_2$ | Carbon Dioxide |
| $CO_2e$ | Carbon Dioxide Equivalent |
| EIR | Environmental Impact Report |
| EO | Executive Order |
| EV | Electric Vehicle |
| GHG | Greenhouse Gases |
| GWP | Global Warming Potential |
| HFC | Hydrofluorocarbon |
| IAQ | Indoor Air Quality |
| LCFS | Low Carbon Fuel Standard |
| LEV | Low-Emission Vehicle |
| MMBTU | Million British Thermal Units |
| $MTCO_2e$ | metric tons of $CO_2$ equivalents |
| MWh | Megawatt-hours |
| $N_2O$ | Nitrous Oxide |
| PFC | Perfluorocarbon |
| ppm | parts per million |
| RPS | Renewable Portfolio Standard |
| SB | Senate Bill |
| $SF_6$ | Sulfur Hexafluoride |
| SOI | Sphere of Influence |
| SP | Service Population |
| TDM | Transportation Demand Management |
| U.S. EPA | United States Environmental Protection Agency |
| VMT | Vehicle Miles Travelled |
| ZEV | Zero Emission Vehicle |
| °F | Degrees Fahrenheit |
| % | Percent |

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# 4.8 HAZARDS AND HAZARDOUS MATERIALS

This section describes the existing hazards and hazardous materials within the project area. It includes a description of the regulatory framework and analyzes impacts that could result from the implementation of the proposed Focused GPU.

## 4.8.1 Environmental Setting

A "hazardous material" is defined by the California Health and Safety Code Section 25501 as, "any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment." Products as diverse as gasoline, paint solvents, film solvents, household cleaning products, refrigerants and radioactive substances are categorized as hazardous materials. What remains of hazardous material after use, or processing, is considered to be a hazardous waste.

Hazardous materials have also been known to infiltrate the groundwater, in some cases contaminating entire groundwater systems. There are currently no known regional plumes of contaminated groundwater within the project area, according to the County of San Mateo Health Services Agency and the State Water Board.

### Hazardous Material Sites

Due to San Carlos' history of industrial use, hazardous materials may be present in the soils and groundwater in or near the industrial areas, especially in the East Side and along portions of El Camino Real. Common hazardous materials in industrial areas include oils, fuels, paints, solvents, acids and bases, disinfectants, and metals. Legacy pollutants used in industrial practices up to the 1970s, such as polychlorinated biphenyl (PCB), may also be present in these areas. The State Department of Toxic Substances Control (DTSC) is responsible for maintaining a list of sites with active hazardous material users and/or generators and sites with historical or current environmental contamination. This list is known as the Cortese List (see description below under Section 4.1.2 Regulatory Setting) The Department is also responsible for coordinating the cleaning-up of contaminated sites. Figure HAZ-1 in Appendix A of the updated Environmental Safety and Public Services Element shows the locations of hazardous materials sites in San Carlos according to the DTSC's records (Cortese List). Table HAZ-1 in Appendix A of the updated Environmental Safety and Public Services Element lists the hazardous materials sites with current or historic environmental contamination.

### Household Hazardous Waste (HHW)

Hazardous waste generated by San Carlos residences is collected in part by the recycling and solid waste services management company at the Shoreway Recycling and Disposal Center, in part through San Mateo County Environmental Health HHW monthly drop-off appointment events in

San Mateo, and in part through other collection facilities. There are several other convenient locations for drop off of HHW including:

- Mercury thermometer exchange at the South Bayside System Authority wastewater treatment plant.
- A pharmaceutical drop-box is also available at the San Carlos Police Department.
- Batteries, mobile phones and motor oil can be recycled curbside at your home or business.

Some HHW, including medical wastes, asbestos, tires, and explosives are not readily disposable within the City of San Carlos.

### Airport Operations

The San Carlos Airport is located within the San Carlos city limit east of US 101, along the bay shoreline. The 160-acre airport is located on land owned by the County of San Mateo and managed by the San Mateo County Public Works Department. Private planes are the primary users of the San Carlos Airport and are utilized for both business and recreation. Due to the airport's 2,600-foot runway, large aircraft, such as commercial jets, are not permitted to use the airport. The airport also allows private jets under 12,500 pounds to land and take off at any time, but activities such as student training are limited to daytime to meet noise abatement requirements. The airport houses approximately 500 aircraft and is the place of business for over 25 aviation related businesses, including a helicopter training school. Other airport services include emergency response functions such as Air-Ambulance, Medivac flights and law enforcement patrols.

The City/County Association of Governments of San Mateo County (C/CAG) serves as the State-mandated Airport Land Use Commission and is responsible for promoting land use compatibility around the County's airports in order to minimize public exposure to excessive airport noise and safety hazards. The primary means by which this is accomplished is through the San Mateo County Comprehensive Airport/Land Use Plan (CLUP), adopted by C/CAG in 2015. The CLUP is a State mandated document that addresses airport/land use compatibility related to proposed land use policy actions within the environs of San Carlos Airport.

## 4.8.2 Regulatory Setting

### Federal

<u>U.S. Environmental Protection Agency (EPA)</u>

Regulates chemical and hazardous materials use, storage, treatment, handling, transport, and disposal practices; protects workers and the community (along with CalOSHA, see below) and integrating the Federal Clean Water Act and Clean Air Act into California Legislation.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

Adopted in 1980, CERCLA was developed to remove contamination of water, air, and land resources from past chemical disposal practices. Also known as the "Superfund Act," CERCLA contains a list of sites referred to as Superfund sites, where there is an imminent threat to human health. CERCLA collects taxes from the chemical and petroleum industries to clean abandoned or uncontrolled hazardous sites using short term and long-term responses techniques.

The Resources Conservation and Recovery Act (RCRA)

Federal law that regulates hazardous wastes from a 'cradle-to-grave' approach, meaning that all hazardous wastes are tracked and strictly regulated from generation to disposal, and waste generators are required to report use or transport of hazardous wastes to the EPA. Hazardous waste generators range from small producers such as dry cleaners and automobile repair facilities to larger producers such as hospitals and manufacturing operations. The EPA categorizes Small Quantity Generators (SQG) as those facilities that produce between 220.5 and 2,205 pounds (i.e., 100 and 1,000 kilograms) of hazardous waste per month. Facilities producing less than 220.5 pounds of hazardous waste per month are not subject to RCRA. Large Quantity Generators (LQG) produce 2,205 pounds or more hazardous waste per month. LQG and SQG facilities are subject to the storage and transportation requirements of RCRA.

The Federal Emergency Planning and Community Right-To-Know Act (EPCRA)

Enacted to inform communities and residents of chemical hazards in their area, this Act requires the US EPA maintain and publish a list of toxic chemical releases, known as the Toxic Release Inventory (TRI). Facilities required to report include industrial uses that manufacture, process, or use significant amounts of chemicals. Reporting includes types and amounts of chemicals that are released each year into the air, water, and land or transferred off-site. Listing as a TRI facility doesn't necessarily mean that releases are harmful to humans or the environment.

Federal Occupational Safety and Health Administration (OSHA)

Establishes and enforces Federal regulations related to health and safety of workers exposed to toxic and hazardous materials. OSHA also sets health and safety guidelines for construction activities and manufacturing facility operations.

U.S. Department of Transportation (DOT)

Regulates the shipment of hazardous material. DOT also administers the Hazardous Materials Transportation Uniform Safety Act (HMTUSA) to clarify conflicting state, local, and federal regulations. HMTUSA requires the Secretary of Transportation to promulgate regulations for the safe transport of hazardous material in intrastate, interstate, and foreign commerce. The Secretary also retains authority to designate materials as hazardous (along with EPA) when they pose unreasonable risks to health, safety, or property.

Standardized Emergency Management System and National Incident Management System (SEMS)

According to the State's SEMS, local agencies have primary authority regarding rescue and treatment of casualties and making decisions regarding protective actions for the community. When a major incident occurs, the first few moments are critical in terms of reducing loss of life and property. First responders must be sufficiently trained to understand the nature and the gravity of the event to minimize the confusion that inevitably follows catastrophic situations. This on-scene authority rests with the local emergency services organization and the incident commander.

### State

California Occupational Safety and Health Administration (CalOSHA)

Responsible for promulgating and enforcing State health and safety standards and implementing Federal OSHA Laws. For example, CalOSHA's regulatory scope includes provisions to minimize the potential for release of asbestos and lead during construction and demolition activities.

California Environmental Protection Agency (Cal EPA)

The Cal EPA implements and enforces a statewide hazardous materials program known as the Certified Unified Program Agency (CUPA) established by Senate Bill 1802 to enable counties and local government to enforce the administrative requirements, permits, inspections, and enforcement activities for the following environmental and emergency management programs for hazardous materials:

- Hazardous Materials Release Response Plans and Inventories (Business Plans)
- California Accidental Release Prevention Program
- Underground Storage Tank Program
- Aboveground Petroleum Storage Act Requirements for Spill Prevention, Control, and Countermeasure Plans
- Hazardous Waste Generator and On-site Hazardous Waste Treatment Programs
- California Uniform Fire Code, Hazardous Materials Management Plans, and Hazardous Material Inventory Statements

CUPAs are accountable for carrying out responsibilities previously handled by approximately 1,300 different state and local agencies.

CalEPA Office of Emergency Services (CalEPA/OES)

Cal/EPA establishes regulations governing the use of hazardous materials in the State to protect air, water, and soil. OES coordinates State and local agencies and resources for educating, planning, and warning citizens of hazardous materials and related emergencies, including organized response efforts in case of emergencies.

CALFIRE, Office of the State Fire Marshal (CAL FIRE-OSFM)

The Office of the State Fire Marshal evaluates and provides technical assistance for the Hazardous Material Management Plan (HMMP), the Hazardous Materials Inventory Statement (HMIS) and the Aboveground Petroleum Storage Act (APSA) Programs. The HMMP and HMIS Program are closely tied to the Business Plan Program.

California Hazardous Waste Control Law

The California Hazardous Waste Control Law is administered by the California EPA to regulate hazardous wastes. Although the Hazardous Waste Control Law is generally more stringent than RCRA, until the federal EPA approves the California Hazardous Waste Control Program (which is charged with regulating the generation, treatment, storage, and disposal of hazardous waste), both the state and federal laws apply in California. The Hazardous Waste Control Law lists 791 chemicals and approximately 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills. The California Code of Regulations (CCR) 22 CCR Section 66261.10 provides that waste has "hazardous" characteristics if it has the following effects: [a](1) a waste that exhibits the characteristics may:

> (A) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed or otherwise managed.
>
> According to 22 CCR (Article 11, Chapter 3), substances having a characteristic of toxicity, ignitability, corrosivity, or reactivity are considered hazardous waste. Hazardous wastes are hazardous substances that no longer have a practical use, such as material that has been abandoned, discarded, spilled, contaminated, or are being stored prior to proper disposal. Toxic substances may cause short-term or long-lasting health effects, ranging from temporary effects to permanent disability or death. For example, toxic substances can cause eye or skin irritation, disorientation, headache, nausea, allergic reactions, acute poisoning, chronic illness, or other adverse health effects if human exposure exceeds certain levels (the level depends on the substance involved). Carcinogens (substances known to cause cancer) are a special class of toxic substances. Examples of toxic substances include most heavy metals, pesticides, and benzene (a carcinogenic component of gasoline). Ignitable substances (e.g., gasoline, hexane, and natural gas) are hazardous because of their flammable properties. Corrosive substances (e.g., strong acids and bases such as sulfuric (battery) acid or lye) are chemically active and can damage other materials or cause severe burns upon contact. Reactive substances (e.g., explosives, pressurized canisters, and pure sodium metal, which reacts violently with water) may cause explosions or generate gases or fumes.

Other types of hazardous materials include radioactive and biohazardous materials. Radioactive materials and wastes contain radioisotopes, which are atoms with unstable nuclei that emit ionizing radiation to increase their stability. Radioactive waste mixed with chemical hazardous waste is referred to as "mixed wastes." Biohazardous materials and wastes include anything derived from living organisms. They may be contaminated with disease-causing agents, such as bacteria or viruses (22 CCR 66251.1 et seq.).

California Department of Toxic Substances Control (DTSC)

DTSC regulates hazardous substances and wastes, oversees remedial investigations, protects drinking water from toxic contamination, and warns the public that could potentially be exposed to listed carcinogens. DTSC evaluates and provides technical assistance for the Hazardous Waste Generator Program, including Onsite Treatment (Tiered Permitting) and the Resource Conservation Recovery Act (RCRA). In addition, EnviroStor is DTSC's data management system for tracking cleanup, permitting, enforcement and investigation efforts at hazardous waste facilities and sites with known contamination or sites where there may be reasons to investigate further. There are six hazardous waste sites currently mapped in San Carlos on the DTSC EnviroStor website, but no open investigations (DTSC EnviroStor).

Underground Tank Regulations

Title 23, Division 3, Chapter 16 (Underground Tank Regulations) of the California Code of Regulations identifies the regulations applicable to new and existing underground storage tanks. These regulations establish monitoring, maintenance, reporting, abatement, and closure procedures for all underground storage tanks in the state. These regulations are administered by the San Francisco Bay Regional Water Quality Control Board.

California Highway Patrol (CHP)

The CHP has primary regulatory responsibility for the transportation of hazardous wastes and materials.

Cortese List

California Government Code Section 65962.5 established the "Cortese List", which requires state agencies to compile a list of all properties affected by hazardous waste and develop a framework for how they will continue to be monitored and addressed by the State. A site's presence on the list has bearing on the local permitting process as well as on compliance with the California Environmental Quality Act (CEQA).

California Porter Cologne Water Quality Control Act

Division 7 of the California Water Code (Water Code) identifies the enforcement and implementation rights of the Regional Water Quality Control Board to remedy discharges to

surface waters or groundwater that would or could violate water quality standards. Standard remedies include issuance of Cease-and-Desist Orders and cleanup and abatement procedures.

Code of Regulations Title 22

Title 22 of the California Code of Regulations contains all applicable State and Federal laws governing hazardous wastes in the State. Title 22 is more stringent and broader in its coverage of wastes than Federal law. Chapter 51 (Site Remediation) identifies the minimum standards of performance for site investigations and response actions performed by the private sector in site cleanup efforts.

Hazardous waste is any waste with properties that make it potentially dangerous or harmful to human health or the environment. Hazardous waste is defined in one of two ways. Waste is considered hazardous if it appears on one of the five lists created pursuant to the Federal Resource Conservation Recovery Act (RCRA). The lists are known as the F-, K-, P-/U-, and M- lists and reflect non-specific source waste, source-specific waste, discarded commercial chemical products, discarded mercury-containing products, respectively. A waste may also be categorized as hazardous if it exhibits one of the four characteristics of hazardous materials: ignitibility, corrosivity, reactivity, and toxicity. Because of its toxicity, solid wastes containing certain levels of lead are considered hazardous and must be handled, transported, and disposed of in accordance with Federal and State law. In California, two thresholds have been established by State regulation to determine if a waste is hazardous due to its lead content. The Total Threshold Limit Concentration (TTLC) establishes a threshold of 1,000 milligrams (mg) of lead per one kilogram (kG) of waste. The Soluble Threshold Limit Concentration (STLC) establishes a threshold of 5 mg of lead per liter (L) of waste extract solution. Hazardous Waste must be disposed of at Class I landfills that are specifically designed to accept hazardous waste, such as the Kettleman Hills Landfill in Kettleman City in Kings County.

California Asbestos Standards in Construction

The California Division of Occupational Safety and Health (Cal/OSHA) enforces the California Asbestos Standards in Construction (8 CCR Section 1529). These standards regulate exposure to asbestos in all construction work including demolition of structures. These regulations establish entry and exit procedures after working in asbestos contaminated areas and establish specific control measures designed to protect workers depending on the type of asbestos they are handling. Such procedures include minimum air circulations, use of respirators, wetting of materials, clothing laundering, construction and demolition equipment requirements, and shielding specifications. Notification procedures are also in place that require building owner and employee noticing as well as external and internal hazard signage. All asbestos workers are required to complete training programs and register as an asbestos contractor, depending on the type of asbestos being removed. Medical examination requirements are also required to monitor worker health, generally on an annual basis.

California Construction Safety Orders for Lead

Title 8, Section 1532.2 (Lead) of the California Code of Regulations establishes the requirements for any construction worker who may be exposed to lead during demolition or salvage, removal or encapsulation, new construction, and cleanup activities. The construction safety orders establish an action level of 30 micrograms of lead per cubic meter (µg/cm3) of air calculated over an 8-hour time-weighted average without regard for the use of a respirator, meaning this is the limit where safety protocols must be initiated, such as use of a respirator. Under no circumstance may a worker be exposed to 50 µg/cm3 over an 8-hour weighted period. These regulations require implementation of engineering and work practice controls such as respiratory protection, protective clothing, housekeeping, hygiene practices, and signage requirements to meet worker exposure limits. Medical monitoring and training requirements are also identified.

Assembly Bill 2948

In response to the growing statewide concern of hazardous waste management, State Assembly Bill 2948 (Tanner 1986) enacted legislation authorizing local governments to develop comprehensive hazardous waste management plans. The intent of each plan is to ensure that adequate treatment and disposal capacity is available to manage the hazardous wastes generated within its jurisdiction.

Hazardous Materials Business Plan (CERS Annual Submittal)

In 1986, the California Governor's Office of Emergency Services (Cal OES) established the Hazardous Materials Business Plan (HMBP) Program, which prevents or minimizes damage to the public and the environment from a release of hazardous materials. Under the Program, California businesses that handle hazardous materials were required to submit an HMBP each year. Assembly Bill 1429, which was passed on July 9, 2019, would require a business with a facility that is not required to submit Tier II information pursuant to the above-mentioned federal provision and is not subject to the provisions governing those aboveground storage tanks to submit its business plan once every three years, instead of annually.

Emergency Services Act

Under the Emergency Services Act, the State of California developed an Emergency Response Plan to coordinate emergency services provided by federal, state, and local agencies. Rapid response to incidents involving hazardous materials or hazardous waste is an integral part of the plan, which is administered but the Governor's Office of Emergency Services. The Office of Emergency Services coordinates the responses of other agencies, including the EPA, California Highway Patrol, Regional Water Quality Control Boards, Air Quality Management Districts, and county disaster response offices.

The Emergency Planning Community Right-to-Know Act

The Emergency Planning Community Right-to-Know Act requires facilities to disclose to the State and Local Emergency Planning Committee the quantities and type of toxic chemicals stored. To avoid multiple reports to various agencies, the California Health and Safety Code requires notification of chemical inventories to the Administering Agency which is DTSC. Notification of chemical inventory is accomplished through completion of a Hazardous Materials Business Plan and inventory.

**Regional**

Regional Water Quality Control Board (RWQCB)

One of nine regional boards in the State, the San Francisco Bay Regional Water Quality Control Board (RWQCB) protects surface and groundwater quality from pollutants discharged or threatened to be discharged to the waters of the State. The RWQCB issues and enforces National Pollutant Discharge Elimination System (NPDES) permits and regulates leaking underground storage tanks and other sources of groundwater contamination.

The RWQCB most recently re-issued the Municipal Regional Stormwater NPDES Permit (MRP) in May 2022 to regulate stormwater discharges from municipalities and local agencies (co-permittees) in Alameda, Contra Costa, San Mateo, and Santa Clara Counties, and the cities of Fairfield, Suisun City, and Vallejo. Provision C.12.f of the MRP requires co-permittee agencies (including the City of San Carlos) to implement a control program for PCBs that reduces PCB loads by a specified amount during the term of the permit, thereby making substantial progress toward achieving the urban runoff PCBs wasteload allocation in the Basin Plan by March 2030. Programs must include focused implementation of PCB control measures, such as source control, treatment control, and pollution prevention strategies. Municipalities throughout the Bay Area are updating their demolition permit processes to incorporate the management of PCBs in demolition building materials to ensure PCBs are not discharged to storm drains during demolition. As of July 1, 2019, buildings constructed between 1955 and 1978 that are proposed for demolition must be screened for the presence of PCBs prior to the issuance of a demolition permit.

Bay Area Air Quality Management District

The Bay Area Air Quality Management District (BAAQMD) regulates the demolition and renovation of buildings and structures that may contain asbestos, and the manufacture of materials known to contain asbestos. The BAAQMD is vested with authority to regulate airborne pollutants through both inspection and law enforcement, and is to be notified 10 days in advance of any

proposed demolition or abatement work. BAAQMD regulations must always be followed when removing asbestos or demolishing buildings.

## Local

Hazardous Materials Response

The Hazardous Materials Response Team of San Mateo County responds to hazardous materials emergencies throughout the county. The team is comprised of the South County Fire Hazmat Team, the Environmental Health Division of the County Health Services Agency, and the Sheriff's Office of Emergency Services.

Airport Land Use Commission

The City/County Association of Governments of San Mateo County (C/CAG) serves as the State-mandated Airport Land Use Commission and is responsible for promoting land use compatibility around the County's airports in order to minimize public exposure to excessive airport noise and safety hazards. The primary means by which this is accomplished is through the San Mateo County Comprehensive Airport/Land Use Plan (CLUP), adopted by C/CAG in 2015. The CLUP is a State mandated document that addresses airport/land use compatibility related to proposed land use policy actions within the environs of San Carlos Airport.

City of San Carlos General Plan

The currently adopted Environmental Management Element and Community Safety and Services Element of the San Carlos 2030 General Plan contain the following policies regarding flooding, emergency response, airport safety, wildfires, and hazards, and Hazardous Materials:

*Goal EM-5*: Assure a high level of domestic water quality, promote water conservation and reduce toxics in run-off, including stormwater and the sanitary sewer system.

> *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-5.2*: Promote the use of less toxic household and commercial cleaning materials.
>
> *Policy EM-5.7*: Encourage site designs that manage the quantity and quality of storm water run-off.
>
> *Action EM-5.1*: Evaluate amending the Zoning Code to maximize permeable surfaces or other water catchment methods for new development as applicable.
>
> *Action EM-5.2*: Utilize bioswales and other bio-filtration systems as applicable to cleanse run-off before it enters creeks and the San Francisco Bay.

*Action EM-5.4*: Implement Climate Action Plan measures to provide for water-efficient landscaping.

*Action EM-5.10*: Implement the NPDES Stormwater Permit and for those properties exempt from the Permit, require a stormwater pollution prevention plan, including use of best management practices, to control erosion and sedimentation during construction.

*Goal CSS-2* Reduce hazards associated with flooding and inundation.

*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-2.9* 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-2.10:* Reduce losses due to flooding by encouraging property owners who experience flood damage to reconstruct their properties in a flood-resistant manner.

Policy CSS-2.11: Participate in regional efforts to address flooding hazards associated with rising sea levels.

*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.

*Goal CSS-3:* Protect lives and property from risks associated with fire-related emergencies.

*Policy CSS-3.1:* Evaluate fire response needs of the Fire Department as new development and redevelopment continues within city limit.

*Policy CSS-3.2:* Participate in fire prevention and life safety programs with neighboring jurisdictions and other governmental agencies as needed.

*Policy CSS-3.4:* Maintain participation with the Joint Powers Authority Agreement with all fire departments in San Mateo County to ensure required response times for initial emergency deployment personnel and equipment.

*Policy CSS-3.5* Preserve the local government agreement with California Department of Forestry and Fire Protection (CAL FIRE) for responses in the Mutual Threat Zone (MTZ) within the Wildland Urban Interface Areas of the city. Continue to provide BSCFD equipment and personnel under the mutual aid agreement, with the State of California Office of Emergency Service (OES) Region II. This continued "reverse support" enables the City of San Carlos to receive "no cost" statewide mutual aid in the event of a declared large-scale emergency.

*Policy CSS-3.6:* Continue to enforce building code regulations that minimize fire hazards in areas subject to a very high fire severity zone (VHFSZ) risk west of Alameda de las Pulgas and prohibit any structural development in areas where wildland urban fire hazards cannot be mitigated under an agreement addressing alternate means of protection and materials agreement.

*Policy CSS-3.7:* Maintain City-owned open space lands in a manner that minimizes and reduces fire hazard threats to fixed public and private properties, by reducing hazardous vegetation fuels.

*Policy CSS-3.8:* Provide adequate access for fire and emergency service vehicles to new development in hillside areas, as per the International Fire Code and the Urban Wildland Interface Code.

*Policy CSS-3.9:* Support "early review" of proposed development by the Belmont-San Carlos Fire Department and institute impact fees to ensure adequate all-risk fire equipment for the community.

*Policy CSS-3.10:* Continue to require all new development to provide all necessary water service, fire hydrants and road improvements consistent with City standards and the California Fire Code.

*Policy CSS-3.11:* Ensure that in existing developed areas within the city there is an acceptable level of fire safety and emergency medical/paramedic services.

*Policy CSS-3.12:* Incorporate drought-resistant and fire resistant plants in capital improvement projects in areas that are subject to wildland fires.

*Policy CSS-3.13:* Ensure that property owners maintain property in a manner that minimizes fire hazards through the removal of vegetation, hazardous structures and materials and debris as governed under the City Municipal Code for enforcement.

*Action CSS-3.1:* Update the City's Community Wildfire Protection Plan as appropriate.

*Action CSS-3.2:* Enforce the established residential fire sprinkler ordinance.

*Goal CSS-4:* Protect the community from the harmful effects of hazardous materials.

*Policy CSS-4.1:* Prohibit uses involving the manufacturing of hazardous materials throughout the city. Hazardous materials are defined in Chapter 6.95, Section 25501 0-1 of the Health and Safety Code. This policy applies only to the direct manufacture of hazardous substances. It does not apply to the storage or use of such materials in conjunction with permitted industrial uses.

*Policy CSS-4.2:* Require producers of and users of hazardous materials in San Carlos to conform to all local, State and federal regulations regarding the production, disposal and transportation of these materials.

*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-4.7:* Require the preparation of emergency response plans as part of use applications for all large generators of hazardous waste as required by federal law.

*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.

*Policy CSS-5.1:* Maintain land use and development in the vicinity of San Carlos Airport that are consistent with the relevant airport/land use compatibility criteria and guidelines contained

in the adopted Airport/Land Use Compatibility Plan (CLUP) for the environs of San Carlos Airport, including noise, safety, height and avigation easement requirements.

*Action CSS-5.1:* Submit proposed land use policy actions (general plans/amendments, specific plans/amendments, rezonings, etc.) and related development plans, if any, that affect property located within the Area B portion of the Airport Influence Area (AIA) boundary for San Carlos Airport, to the San Mateo County Airport Land Use Commission for review/action, pursuant to California Public Utilities Code Section 21676(b), prior to final action by the City.

*Goal CSS*-6: Continue effective emergency response procedures to ensure public safety in the event of natural or man-made disasters.

*Policy CSS-6.2:* Preserve a Basic Emergency Operation Plan consistent with the National Incident Management System (NIMS).

*Policy CSS-6.9:* Evaluate safety service limitations on an annual basis to provide for adequate levels of service.

These General Plan Community Safety and Services Element policies have been revised in the proposed Environmental Safety and Public Services (ESPS) Element. See impact discussion below.

### 4.8.3 Significance Thresholds

Per the CEQA Guidelines, implementation of the proposed project would have a significant impact related to hazards and hazardous materials if it would:

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

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;

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

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;

e) For development within the project area located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;

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

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

### 4.8.4 Impacts and Mitigation

This section describes potential impacts related to hazards and hazardous materials which could result from the implementation of the General Plan Update and recommends mitigation measures as needed to reduce significant impacts. Unless otherwise noted, impact discussions apply to both the Housing Element and Environmental Safety and Public Services Element aspects of the project.

***Impact HAZ-1: The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. (Less Than Significant Impact)***

Hazardous materials include substances that are flammable, corrosive, explosive, radioactive, infectious, thermally unstable, and poisonous. Future residential and mixed-use development facilitated by implementation of the project would not likely include the routine transport, use, storage, and disposal of hazardous materials associated with these uses. These uses would involve the use of small amounts of hazardous materials for cleaning and maintenance purposes, such as cleansers, degreasers, pesticides, and fertilizers. Construction activities at project sites would involve the short-term use of hazardous materials, such as petroleum-based fuels for maintenance and construction equipment, wet concrete and asphalt, paint, and other hazardous construction materials.

All hazardous substances associated with future residential and mixed-use development construction and operations would be used, transported, stored, and disposed of in conformance with applicable regulations, including:

- The Resource Conservation Recovery Act, which provides the “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 US roadways;
- The International Fire Code, which creates procedures and mechanisms to ensure the safe handling and storage of hazardous materials;
- California Code of Regulations Title 22, which regulates the generation, transportation, treatment, storage, and disposal of hazardous waste; and
- The California Code of Regulations Title 27, which regulates the treatment, storage, and disposal of solid wastes.

Compliance with applicable regulations would ensure that the project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

***Impact HAZ-2: The 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. (Less Than Significant Impact)***

As discussed above, construction activities would involve the short-term use of hazardous materials, such as petroleum-based fuels for maintenance and construction equipment, wet concrete and asphalt, paint, and other hazardous construction materials. All spills or leaks of petroleum products during construction would be required to be immediately contained, the hazardous material identified, and the material remediated in compliance with applicable State and local regulations. All contaminated waste would be required to be collected and disposed of at an appropriately licensed disposal or treatment facility. Furthermore, strict adherence to all emergency response plan requirements set forth by the San Mateo County Environmental Health Department (San Mateo County Health) would be required throughout the duration of construction. In addition, soil off hauled during grading and excavation would typically be tested to determine the appropriate method of disposal. Therefore, substantial hazards to the public or the environment arising from the accidental release of hazardous materials during project construction would not occur.

As previously discussed, the project area contains numerous sites containing contaminated soil and groundwater, as identified on the Cortese List. Soil and groundwater contaminants from these sites could potentially be released if flooding were to occur during storm events. The majority of the hazardous waste and Leaking Underground Storage Tank (LUST) sites on the Cortese List occur on commercial and/or industrial properties in the area between El Camino Real and US 101, which coincides with the area in which the majority of the 100-year flood hazard zones are mapped (primarily the El Camino Real and Industrial Road corridors). These areas also contain mapped 500-year flood hazard zones (refer to Figure 4.9-1).

**Goals, Polices & Actions**

The updated Environmental Safety and Public Services Element contains the following goals, policies, and actions to address the release of hazardous materials into the environment and flooding hazards, which include flooding that would result in the release of hazardous materials (soil and groundwater contaminants) into the environment:

*Goal ESPS-2:* Reduce hazards associated with flooding and inundation.

> *Policy ESPS-2.1:* Improve and maintain City storm drainage infrastructure in a manner that reduces flood hazards.
>
> *Policy ESPS-2.2:* Maintain and prioritize restoration of a healthy riparian corridor in City-maintained flood control channels such as Pulgas Creek and Belmont Creek to reduce the risk

of flooding due to erosion, siltation, blockage, and heavy undergrowth; and increase community access to channels with improved stormwater and flood management strategies.

*Policy ESPS-2.3:* Maintain a strong and enforceable Stream Development and Maintenance Ordinance for all city creeks and their tributaries.

*Policy ESPS -2.4:* Minimize impervious surfaces to reduce stormwater runoff and increase flood protection.

*Policy ESPS -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 ESPS -2.6:* Promote City staff knowledge and training on the relationship between watershed health and flood hazards.

*Policy ESPS -2.7:* Coordinate with neighboring jurisdictions on approaches to flooding and creek maintenance.

*Policy ESPS -2.8:* Continue to work with appropriate local, State, and federal agencies (such as FEMA, San Mateo County OneShoreline Program, City/County Association of Governments (CCAG) of San Mateo County, and San Francisco Bay Conservation and Development Commission (BCDC) to: (1) maintain the most current flood hazard and floodplain information and use it as a basis for project review; and (2) create public-private partnerships to guide development in accordance with federal, State, and local standards.

*Policy ESPS -2.10:* Incorporate stormwater drainage systems in development projects to effectively control the rate and amount of runoff to prevent increases in downstream flooding potential.

*Policy ESPS -2.11:* 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.

*Action ESPS -2.1:* Consider participating in a regional Watershed Management Plan to perform technical analysis to understand geotechnical, biological, and hydraulic conditions to model the hydrography of the city and identify options to reduce flooding risk and where opportunities exist to restore creeks within the watershed to a more naturalized condition. Options could include detaining or retaining stormwater runoff in upper portions of the watershed, adding capacity in the lower portions of the watershed and maintaining existing creek and channel capacity through improved maintenance. The Watershed Management Plan would seek to balance the two primary functions of creeks: flood control and riparian habitat.

*Action ESPS-2.2:* Amend the Stream Development and Maintenance Ordinance to: (1) include all creeks and tributaries, including Pulgas Creek and Belmont Creek, to strengthen the effectiveness of existing policies and to create vital and accessible community open space with

improved stormwater and flood management strategies; (2) increase the required setbacks and landscaping provisions from the existing creek top to improve stormwater detention capacity and to help address flooding issues and creek restoration; (3) prohibit general vehicle access along the creek within the Stream Development Ordinance overlay district.

*Action ESPS -2.6:* Seek to have property owners downstream of city limit maintain drainage channels in a responsible manner to avoid flooding.

*Action ESPS -2.7:* Initiate flood insurance rate map revisions for City projects.

*Goal ESPS-5:* Protect the community from the harmful effects of hazardous materials.

*Policy ESPS-5.3:* Mitigate hazard exposure to and from new development projects through the environmental review process, design criteria, and standards enforcement.

Conformance with the above goals, policies and actions of the updated Environmental Safety and Public Services Element, listed above, would reduce potential impacts of release of hazardous materials into the environment to a less than significant level.

***Impact HAZ-3: The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. (Less Than Significant Impact)***

Construction activities associated with future residential and mixed-use development and redevelopment could potentially occur in the vicinity of existing schools. Potential construction-related air toxics impacts to schools and other sensitive receptors are discussed in Section 4.2 Air Quality. However, as discussed above, construction activities would involve the short-term use of hazardous materials, the handling and disposal of which would be subject to regulation by the California Code of Regulations, Titles 22 and 27, and would not result in a significant hazard to the public. Therefore, the project would not result in a significant impact to existing schools.

***Impact HAZ-4: The project area contains sites that are included on lists of hazardous materials sites compiled pursuant to Government Code Section 65962.5, however, goals, policies and actions addressing hazardous materials contained in the updated Environmental Safety and Public Services Element would reduce potential impacts to less than significant levels. (Less Than Significant Impact).***

There are numerous Cortese List sites located within the project area. The majority of these are LUST sites that have been remediated and their clean-up operations completed. Cases that are still active are regulated by the DTSC, San Mateo County Environmental Health Division, State Water Quality Control Board, and the Army Corp of Engineers.

### Goals, Polices & Actions

The updated Environmental Safety and Public Services Element contains the following goal, policies, and actions that would reduce the potential impacts to the public or the environment from hazardous materials sites:

*Goal ESPS-5:* Protect the community from the harmful effects of hazardous materials.

> *Policy ESPS -5.2:* Require producers of and users of hazardous materials in San Carlos to conform to all local, State. and federal regulations regarding the production, disposal, and transportation of these materials.
>
> *Policy ESPS -5.3:* Mitigate hazard exposure to and from new development projects through the environmental review process, design criteria, and standards enforcement.
>
> *Policy ESPS -5.4:* Mitigate indoor air intrusion potential in areas of new development or redevelopment where the property is located above known volatile compound plumes.
>
> *Policy ESPS -5.5:* 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 ESPS -5.6:* Prohibit land uses and development which emit odors, particulates, gases, or other environmentally sensitive contaminants from being located within proximity of schools, community centers, residential areas, and other sensitive receptors. Sensitive receptors shall be prohibited from locating in the proximity of environmentally sensitive contaminants.
>
> *Policy ESPS -5.8:* Actively promote public education, research, and information dissemination on hazards materials.

Conformance with the goal, policies and actions addressing hazardous materials contained in the updated Environmental Safety and Public Services Element would reduce potential impacts to a less than significant level.

***Impact HAZ-5: The project is located within two miles of the San Carlos Airport, but would not result in a safety hazard or excessive noise for people residing or working in the project area. (Less Than Significant Impact)***

The San Carlos Airport is located in the northeast corner of the City, between the US 101 freeway and the San Francisco Bay.

### Goals, Polices & Actions

In order to address compatibility between the airport and surrounding land uses, the updated Environmental Safety and Public Services Element contains the following goal, policy and action:

*Goal ESPS -6:* Minimize risks associated with operations at the San Carlos Airport.

*Policy ESPS -6.1:* Maintain land use and development in the vicinity of San Carlos Airport that are consistent with the relevant airport/land use compatibility criteria and guidelines contained in the adopted Airport/Land Use Compatibility Plan for the environs of San Carlos Airport, including noise, safety, height, and avigation easement requirements.

*Action ESPS -6.1:* Submit proposed land use policy actions (general plans/amendments, specific plans/amendments, rezonings, etc.) and related development plans, if any, that affect property located within the Area B portion of the Airport Influence Area (AIA) boundary for San Carlos Airport, to the San Mateo County Airport Land Use Commission for review/action, pursuant to California Public Utilities Code Section 21676(b), prior to final action by the City.

Implementation of Policy *ESPS* -5.1 (previously described), *ESPS* -6.1 and Action *ESPS* -6.1, as well as implementation of the appropriate provisions of the CLUP, described above, would reduce potential safety hazards and excessive noise impacts to less than significant levels.

***Impact HAZ-6: The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (Less Than Significant Impact)***

According to the updated Environmental Safety and Public Services Element, State law requires the City of San Carlos to have established emergency preparedness procedures to respond to a variety of natural and man-made disasters that could affect the community. In the event of an emergency, the City will respond according to the Standardized Emergency Management System (SEMS) developed by the State. The SEMS system establishes a hierarchy of response, with local government as the first responders. If San Carlos does not have sufficient resources to respond to a disaster, the County of San Mateo would lend resources. Mutual Aid agreements between various agencies would be enacted all the way to the State level.

San Carlos established an Emergency Operations Center (EOC) program in 1987. The City's Emergency Response Plan establishes evacuation routes, identifies agencies responsible for emergency response and summarizes and assesses potential threats and hazards. Additionally, as required by California Government Code 3100, all City employees must report to City Hall, after ensuring the welfare of their families, to assist in emergency response in the event of a disaster.

San Mateo County Sheriff's Office of Emergency Services (OES) is responsible for coordinating emergency response in the county. The OES operates under a Joint Powers Agreement with the 20 incorporated cities in the county. The Emergency Services Council, which consists of a representative from each of the 20 incorporated cities and a member of the County Board of Supervisors, governs the OES.

### Software Applications

SMC Alert is a software application used to send emergency alerts, notifications, and updates to cell phones, mobile devices, home phones, work, and/or e-mail accounts. In the event of an emergency, public safety agencies such as the City of San Carlos are able to provide emergency information directly to the community. These messages provide the community with instructions, orders, and updates. The SMC Alert system is managed by the San Mateo County Office of Emergency Services. The service is free to all and is available to all cities, towns, and special districts within San Mateo County. Alerts may also be sent by local fire, police, and emergency operations managers from other cities within San Mateo County. Alert types may include life safety, fire, weather, accidents involving utilities, or roadway or disaster notifications.

Zonehaven is an application that provides a common operating framework for mutual aid and evacuation planning. Zonehaven's evacuation management platform assists emergency services and increases efficiency with seamless collaboration between fire agencies, law enforcement, Office of Emergency Services, and the community. Zonehaven's community evacuation interface promotes safety and security by providing community members with their zone and an up-to-date evacuation status. Zonehaven incorporates local weather conditions, geographic data, and local knowledge into simulations to provide an accurate emergency situation scenario. Using local traffic data, Zonehaven's network analysis algorithms identify key intersections and choke points so emergency management agencies can define zones to reduce gridlock and enable fire and law enforcement to support evacuations more easily. In the event of an evacuation, models can be generated to enable fire and law enforcement to look ahead at what may come in the system and the application can be switched over to training mode to run a rapid simulation that provides 1-, 3- and 5-hour predictions to provide recommendations for evacuation zone sequencing.

### San Carlos Emergency Operations Plan

The 2014 San Carlos Emergency Operations Plan (EOP) outlines how the City of San Carlos, its government, stakeholder agencies, community-based organizations, business community, and residents will coordinate a response to major emergencies and disasters. The EOP identifies operational strategies and plans for managing inherently complex and potentially catastrophic events. The City of San Carlos has officially adopted and integrated the following emergency management, response, and coordination systems:

- Incident Command System (ICS)
- Standardized Emergency Management System (SEMS)
- National Incident Management System (NIMS)

The EOP addresses the four phases of emergency management: Preparedness, Response, Recovery, and Mitigation.

## Goal, Policies & Actions

The updated Environmental Safety and Public Services Element contains the following Goal, Policies, and Actions to address potential impacts related to emergency response and/or evacuations:

*Goal ESPS -7:* Continue effective emergency response procedures to ensure public safety in the event of natural or man-made disasters.

*Policy ESPS -7.1:* Display leadership in the preparation for natural and man-made disasters by taking a proactive rather than a reactive approach.

*Policy ESPS -7.2:* Preserve a Basic Emergency Operation Plan consistent with the National Incident Management System (NIMS).

*Policy ESPS -7.3:* Maintain City Hall as the Emergency Operations Center (EOC) in San Carlos and provide for fully functional back up EOC for City staff.

*Policy ESPS -7.4:* Coordinate the preparation for natural and man-made disasters with the San Mateo County Office of Emergency Services, neighboring jurisdictions, and other governmental agencies.

*Policy ESPS -7.5:* Inform the public about disaster preparedness by providing information on supplies, training, evacuation routes, communication systems, and shelter locations.

*Policy ESPS -7.6:* Make available to the community, programs and resources relating to disaster preparedness.

*Policy ESPS -7.7:* Support the efforts of neighborhood and civic organizations to prepare for disasters if City resources are not available.

*Policy ESPS -7.8:* Identify and develop communication systems, evacuation methods, shelter locations and other services for special needs populations.

*Policy ESPS -7.9:* Evaluate safety service limitations on an annual basis to provide for adequate levels of service.

*Policy ESPS -7.10:* Identify potential emergency routes and suggest methods for operational needs for first responders.

*Policy ESPS -7.11:* Establish the capability to re-locate critical emergency response facilities such as fire, police, and essential services facilities, if needed, in areas that minimize their exposure to flooding, seismic effects, fire, or explosion.

*Policy ESPS -7.12:* Develop a procedure to quantify community emergency preparedness levels.

*Action ESPS -7.1:* Evaluate the Emergency Operation Plan on an annual basis and revise as needed to promote disaster preparedness.

*Action ESPS -7.2:* Coordinate emergency response procedures with acute care medical facilities in San Mateo County to ensure adequate preparedness for hospital patients and staff.

*Action ESPS -7.3:* Participate in regional disaster event simulations semi-annually by using the primary EOC and methods for implementing a back-up EOC.

*Action ESPS -7.4:* Create a back-up EOC for City staff. Enter into a shared EOC agreement with a neighboring jurisdiction or County in the event City Hall is rendered inoperable as an EOC.

*Action ESPS -7.5:* Participate in San Mateo County OES preparedness exercises and disaster simulations.

*Action ESPS -7.6:* Encourage City employees through a volunteer program to obtain training in disaster preparedness and basic first aid skills.

*Action ESPS -7.7:* Maintain and enhance the community disaster preparedness programs.

*Action ESPS -7.8:* Identify the need for community awareness and education programs for residents. Develop programs to respond to identified needs.

*Action ESPS -7.9:* Disseminate semi-annually, disaster preparedness information to residents through the city web site, newsletters, e-notify, newspaper articles, or other methods.

*Action ESPS -7.10:* Make available multi-language disaster preparedness information.

*Action ESPS -7.11:* Identify and program for emergency supplies through the EOC program in public parks.

The policies and actions listed above, contained in the updated Environmental Safety and Public Services Element, would assure that it's adoption would not impair implementation of or physically interfere with any of the City's emergency response or evacuation plans.

***Impact HAZ-7: The project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. (Less Than Significant Impact)***

Fire protection in California is the responsibility of either the federal, state, or local government. In State Responsibility Areas (SRA), which are defined according to land ownership, population density, and land use, the California Department of Forestry and Fire Protection (CAL FIRE) has a legal responsibility to provide fire protection. Local Responsibility Areas (LRA) include incorporated cities and cultivated agriculture lands. In LRA, fire protection is provided by city fire departments, fire protection districts, or counties, or by under contract to local government.

San Carlos fire service is provided under contract by the City of Redwood City Fire Department. It provides fire protection, hazardous materials response, disaster preparedness, and emergency medical response. A portion of the San Carlos Sphere of Influence is under the SRA, and would therefore be protected by CAL FIRE.

According to the updated Environmental Safety and Public Services Element, the foothill neighborhoods west of Alameda de las Pulgas are designated Very High Fire Hazard Severity Zones (VHFSZ) by CAL FIRE. The Heather Elementary School and many homes in the western hills are also located within the VHFSZ designation.

### Goals, Polices & Actions

The majority of proposed 6th Cycle housing sites and properties proposed for rezoning are not located within these VHFSZ-designated areas, however, the updated Environmental Safety and Public Services Element contains the following goal, policies, and actions to address potential impacts related to wildland fires citywide:

*Goal ESPS -3:* Agency Coordination: A resilient San Carlos is well prepared to minimize risks associated with wildfire.

> *Policy ESPS 3.1:* Promote and improve, as necessary, inter-jurisdictional consultation and communication regarding disaster or emergency plans of San Carlos with adjacent agencies including but not limited to San Mateo County, Redwood City, Belmont, and CAL FIRE.
>
> *Action ESPS 3.1:* Maintain participation in the Joint Powers Authority Agreement with all fire departments in San Mateo County to ensure required response times for initial emergency deployment personnel and equipment.
>
> *Action ESPS 3.2:* Preserve the local government agreement with California Department of Forestry and Fire Protection (CAL FIRE) for responses in the Mutual Threat Zone (MTZ) within the Wildland Urban Interface (WUI) areas of the city. Continue to provide equipment and personnel under the mutual aid agreement, with the State of California Office of Emergency Service (OES) Region II. This continued "reverse support" enables the City of San Carlos to receive "no cost" statewide mutual aid in the event of a declared large-scale emergency.
>
> *Action ESPS 3.3:* Collaborate with the regional fire agencies on strategies available to maintain defensible space, diverse plant composition (e.g., less combustible native plants), undertake appropriate thinning of vegetation, and maintain fuel breaks without permanently damaging native habitat.

<u>Facilities and Training</u>

> *Policy ESPS-3.2:* Conduct annual training for fire, emergency medical, and police staff including cross training with adjacent automatic or mutual aid emergency response

departments. Regularly maintain, test, and update training and equipment to meet current standards.

*Policy ESPS-3.3:* Ensure adequate Fire Department resources (fire stations, personnel, and equipment) to meet response time standards, keep pace with growth, and provide a high level of service to the community.

*Action ESPS-3.4:* Continue to work with the Redwood City Fire Department to ensure that fire services are maintained at adequate levels. With subsequent Safety Element updates, assess and project future emergency service needs. Continue to monitor service area to ensure that all San Carlos areas have fire service. Monitor the City of San Carlos' fire protection rating and work with the Redwood City and San Mateo County Fire Departments to correct deficiencies and to ensure ongoing training, including cross training is conducted.

*Action ESPS-3.5:* Train and educate public volunteers in basic fire safety response.

Land Use Planning

*Policy ESPS-3.4:* Locate essential public facilities out of high-risk, wildfire-prone areas including the VHFHSZ unless mitigation measures, above the minimum fire protection standards, are installed.

*Policy ESPS-3.5:* Prioritize infill development opportunities to prevent increased development in the WUI and Very High Fire Severity Zones (VHFSZ).

*Policy ESPS-3.6:* Minimize new development within the VHFSZ.

*Policy ESPS-3.7:* Consider the preservation of undeveloped ridgelines to reduce fire risk and improve fire protection.

*Policy ESPS-3.8:* Regularly review and confirm the City's re-development policy for all structures in VHFSZs after large fires. If the City has an unwritten policy, adopt a written re-development policy.

*Policy ESPS-3.9:* Incorporate or require the incorporation of fire safety features in new development and re-development.

*Policy ESPS-3.10:* Require new residential developments to have adequate fire protection; and be more wildfire resistant by establishing greenbelt zones for fire resistant landscaping.

*Policy ESPS-3.11:* Require new residential development to be designed in such a manner that reduces wildfire hazard and improves defensibility (e.g. clustering lots, managed greenbelts, water storage, fuel modification sones, and vegetation setbacks.)

*Action ESPS-3.6:* Discourage critical facilities being in the VHFSZ.

*Action ESPS-3.7:* Periodically re-evaluate the City's policy allowing rebuilding in the VHFSZ. If the policy is unwritten, adopt a formal written policy.

*Action ESPS-3.8:* When a fire has occurred in the VHFSZ, evaluate if street design and size can be reconfigured to improve emergency access and evacuation efficiency.

*Action ESPS-3.9:* If development is permitted within the VHFSZ, require:

- a Fire Protection Plan addressing: risk analysis, fire response capabilities, fire safety requirements (defensible space, infrastructure, and building ignition resistance), mitigation measures and design considerations for non-conforming fuel modification, and wildfire education maintenance and limitations;

- landscape/fuel modification installation, incorporating open areas to complement defensible spaces, identifying possible refuge areas, and mapping and providing multiple ingress and egress routes;
- resident evacuation plans and ways to effectively communicate those plans, including identifying the location and direction of evacuation routes and at least two points of ingress and egress; and
- a roadside fuel reduction plan to prevent fires along public roads caused by vehicles.

*Action ESPS-3.10:* Enforce fire standards and regulations while reviewing building plans and conducting building inspections.

<u>Water Supply</u>

*Policy ESPS-3.12:* Ensure adequate water supply is available.

*Action ESPS-3.12* - Require new development projects have adequate water supplies to meet the fire-suppression needs of the project without compromising existing fire suppression services to existing uses.

*Action ESPS-3.13:* Work with water suppliers (Cal Water) to:

- maintain and ensure the long-term integrity of future water supply for fire suppression needs;
- ensure that water supply infrastructure adequately supports existing and future development and redevelopment;
- provide adequate water flow to combat structural and wildland fires, including during peak domestic demand periods. Water systems shall equal or exceed the standards of the latest edition of National Fire Protection Association (NFPA) 1142, "Standard on Water Supplies for Suburban and Rural Fire-Fighting.";
- ensure water infrastructure can provide for peak fire flow; and
- identify where water infrastructure does not allow for peak fire flow and develop a plan to mitigate the deficiencies.

Construction and Property Maintenance

*Policy ESPS-3.13:* Ensure new and existing public and privately owned properties are constructed and maintained in a manner that minimizes and reduces fire hazard threats and has adequate fire protection.

*Action ESPS-3.14:* Condition all new development and redevelopment to have adequate fire protection, incorporate and maintain fire safe design, including fuel modification zones, defensible space, two ingress/egress points, emergency vehicle access, and visible home addressing and street signage.

*Action ESPS-3.15:* Require the use of fire-retardant roofing material for all new construction and major remodels involving roof additions. Encourage property owners with shake shingle roofs to upgrade to fire-retardant materials.

*Action ESPS-3.16:* Continue to enforce the brush clearance/weed abatement program for both private and public roads as well as City-owned open spaces.

*Action ESPS-3.17:* Continue code enforcement programs requiring private and public property owners to maintain buildings and properties to prevent blighted conditions, remove excessive or overgrown vegetation (e.g., trees, shrubs, weeds), and remove litter, rubbish, and illegally dumped items from properties.

*Action ESPS-3.18:* Seek grants and other funding sources to assist low-income residents with home hardening efforts.

*Action ESPS-3.19:* Adopt an ordinance or update existing ordinances to require development standards that meet or exceed title 14, CCR, division 1.5, chapter 7, subchapter 2, articles 1-5 (commencing with section 1270) (SRA Fire Safe Regulations) and title 14, CCR, division 1.5, chapter 7, subchapter 3, article 3 (commencing with section 1299.01) (Fire Hazard Reduction Around Buildings and Structures Regulations) for SRAs and/or VHFHSZs..

*Action ESPS-3.20:* Within the VHFSZ, the City's building and planning departments will work with local fire departments, community organizations, and other responsible organizations to require and ensure:

- the installation of fire protection water system for all new construction projects including fire hydrant instillation, fire sprinkler, or suppression systems, and providing adequate fire flow;
- the long-term maintenance of defensible space clearances around structures, subdivisions, and fuel breaks; and
- all structures rebuilt/re-developed after a large fire to comply with building and fire codes in effect at the time of the re-development.

*Action ESPS-3.21:* Conduct a survey of existing residential structures within the VHFSZ identifying buildings that do not comply with fire safety standards. Consult with property owners to bring those properties into compliance with the most current building and fire safety standards.

*Action ESPS-3.22:* Consider developing or improving structure hardening standards for community refuges (such as schools, hospitals, evacuation centers).

*Action ESPS-3.23:* Evaluate the City's roadways regarding access, alignments, etc. to facilitate fire, police, and ambulance access and resident egress in case of an emergency.

Access and Evacuation

*Policy ESPS-3.14:* Provide adequate evacuation routes and access for fire and emergency service vehicles to all San Carlos areas.

*Policy ESPS-3.15:* Identify and implement measures to mitigate the single access roads, as feasible.

*Action ESPS-3.24:* Identify streets and key intersections that, due to pavement width, hairpin turns, and tight curves, if not cleared of vehicles, may interfere with emergency vehicle access and/or resident evacuation during a fire.

*Action ESPS-3.25:* Identify the potential for street widening and improvement during regular Capital Improvement project maintenance, e.g., utility undergrounding, resurfacing, and American with Disabilities (ADA) compliance.

*Action ESPS-3.26:* Prohibit parking on one or both sides of a street identified as having the potential to interfere with emergency vehicle access and/or resident evacuation during a fire, when Red Flag alerts have been issued.

*Action ESPS-3.27:* In conjunction with the use of the Zonehaven system, supplement the evacuation plan, with special emphasis placed on the areas that do not have sufficient access and egress. Recommend improvements to ensure adequate evacuation capabilities.

*Action ESPS-3.28:* Conduct a study to review evacuation routes, their capacity, safety, and viability under a range of emergency scenarios as set forth in AB 747. Determine remedial actions, as appropriate. Update evacuation plans with each update of the Safety Element to address changes in at-risk areas and populations.

*Goal ESPS -4:* Develop a community that proactively prevents wildfires and protects life, property, and infrastructure from urban and wildfire impacts.

*Policy ESPS-4.1:* Provide public education to promote community awareness and preparedness for self-action in the event of a major disaster or emergency.

*Action ESPS-4.1:* Partner with Redwood City Fire Department, San Mateo Sheriff Department, neighboring cities, regional agencies, local school districts, local businesses, and community organizations to conduct emergency and disaster preparedness exercises that test operational and emergency response plans (including evacuation routes) and prepare and conduct public outreach regarding evacuation procedures and routes and defensible space.

*Action ESPS-4.2:* Identify at-risk populations that would be vulnerable during wildfire evacuations and provide information to the at-risk residents regarding defensible space and evacuation routes.

*Action ESPS-4.3:* Prepare and make available to the public a current map of areas subject to wildland fires as provided by the California Department of Forestry and Fire Protect (CAL FIRE).

*Action ESPS-4.4:* Implement a fire hazards education program to minimize risk for residential, commercial, and institutional uses.

- Provide training opportunities for residents for fuel modification methods, practices, and materials.
- Prepare and distribute two vegetation lists – one identifies recommended vegetation in the VHFSZ and the other identifies prohibited vegetation in the VHFSZ.

*Action ESPS-4.5:* Create and promote enrollment in a San Carlos emergency reverse dial program. Work with vulnerable populations to ensure enrollment.

*Action ESPS-4.6:* Consider establishing an outdoor warning system in the VHFSZ designed to alert residents about possible fire danger.

Implementation of the above-listed Agency Coordination, Facilities and Training, Land Use Planning, Water Supply, Construction and Property Maintenance, and Access and Evacuation goals, policies and actions contained in the updated Environmental Safety and Public Services Element would reduce the risk of loss, injury or death involving wildland fires to future development. This would be a less than significant impact.

### 4.8.5 References

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# 4.9 HYDROLOGY AND WATER QUALITY

This section describes the existing hydrologic and water quality conditions within the project area. It includes a description of the regulatory framework and analyzes impacts that could result from the implementation of the proposed Focused GPU.

## 4.9.1 Environmental Setting

### Watersheds

The project area encompasses portions of four San Mateo County watersheds that drain to San Francisco Bay. Belmont Creek begins along the hills west of Belmont and flows east for about three miles until it drains into Steinberger Slough. In 1878, a dam was created in Belmont Creek to create Water Dog Lake, which is located less than one mile northwest of the San Carlos City limits. The southeast portion of the Belmont Creek watershed is located within San Carlos. The Pulgas Creek watershed drains about 3.5 square miles. A large portion of the creek channel is modified, and flows in underground culverts through the City. It daylights on the east side of El Camino Real and flows in a northeasterly direction, crossing under US 101 before entering into Smith Slough near the Bair Island National Wildlife Refuge. The Greenwood Drainage watershed includes a narrow riparian corridor surrounding a small creek that flows through the southeastern part of San Carlos (Brittan Creek), between Greenwood Avenue and Howard Avenue, west of El Camino Real. The creek channel is culverted at El Camino Real, but also drains to Smith Slough east of US 101. The Cordilleras Creek watershed drains about 3.3 square miles. The creek, which forms the southern border of the City, originates in the Pulgas Ridge Open Space district and discharges into Smith and/or Steinberger Sloughs, depending on tidal and creek flow conditions.

### Groundwater

The City of San Carlos is located within the San Mateo Subbasin of the Santa Clara Valley Groundwater Basin. The San Mateo Subbasin is bounded by the Westside Basin to the north, San Francisco Bay to the east, San Francisquito Creek to the south and the Santa Cruz Mountains to the west. The Subbasin has two main water-bearing units: the Holocene and Pleistocene alluvium and the Santa Clara Formation. The alluvium is the most important water-bearing unit in the Subbasin, and most of the wells in the Subbasin draw water from the deeper aquifers of this unit. A relatively shallow water table aquifer overlies the aquifers in the lowland areas. Groundwater is commonly found at less than five feet below grade in the flatland areas.

### Water Quality

The health of the watersheds in San Carlos is typical of urbanized areas. Upland sections of the creeks tend to have less pollution while urbanized portions of the waterways contain contaminants. Various contaminants have been identified in San Carlos creeks including polychlorinated biphenyls (PCBs), which can persist in the tissues of animals found in the creeks, as well as ultimately pollute the Bay. The City considers the habitat functions of streams and riparian

corridors a priority and, therefore, developed watershed protection mechanisms such as creek setbacks, regulations for construction adjacent to creeks and pesticide application in watershed areas.

## Flooding

Flooding and Climate Change

As discussed in the proposed Environmental Safety and Public Services Element, inland flooding can cause significant harm to buildings, people, and infrastructure. Floodwater can be deep enough to drown people and may move fast enough to carry people or heavy objects (such as cars) away. Flooding can be caused by heavy rainfall, long periods of moderate rainfall, or clogged storm drains during periods of rainfall. In rare instances, a break in a water pipe or water tank can also cause flooding. Storm drainage systems throughout San Carlos collect stormwater runoff from streets and convey flows to discharge points at local receiving waters to prevent flooding, although the capacity of these systems are designed based the frequency interval of a typical heavy winter storm (i.e., a 10-year storm) and may not be designed to accommodate more intense storms anticipated under climate change conditions.

What is currently considered a 100-year flood, or a flood that has a 1-percent chance of occurring annually, may occur more often due to climate change. The inland flood hazard areas are primarily located along the Bay shore, Pulgas Creek, Cordilleras Creek, and Belmont Creek.

During strong storms and king tides, bay shoreline flooding may damage or destroy commercial buildings in low-lying areas in eastern San Carlos; disrupt transportation routes, such as Highway 101, Shoreway Road, Industrial Road, Holly Street, Old County Road, and Brittan Avenue; and harm important economic assets, such as the Aviation Museum, industrial and manufacturing centers, biotechnology companies, and major employers. Essential infrastructure, such as the San Carlos Airport, bridges, electric vehicle charging stations, solid waste facilities, and water and wastewater infrastructure, may be frequently temporarily inundated, causing them and the community services they support to not function as needed.

Persons experiencing homelessness may live in open spaces along creeks, persons without access to lifelines, or with limited income or access to resources, may be more likely to live in low-lying areas or in less-resilient structures, and therefore are highly vulnerable to bayshore flooding.

Localized Flooding

Flooding is a concern for San Carlos residents and property owners. Localized flooding can occur during peak flow times, mainly in the industrial/commercial areas of town which are located within the 100-year flood zone. Figure 4.9-1 shows the 100- and 500-year flood zone areas in the project area, as mapped by FEMA. Areas within the 100-year flood zone have a one in 100 chance of local to general flooding every year. As of 2016, the 100-year flood zone is mapped as generally located along Pulgas Creek and Brittan Creek paralleling Brittan Avenue, in areas along El Camino Real

south of Olive Street and in the East Side Industrial Area. Flooding is also a problem along Cordilleras Creek.

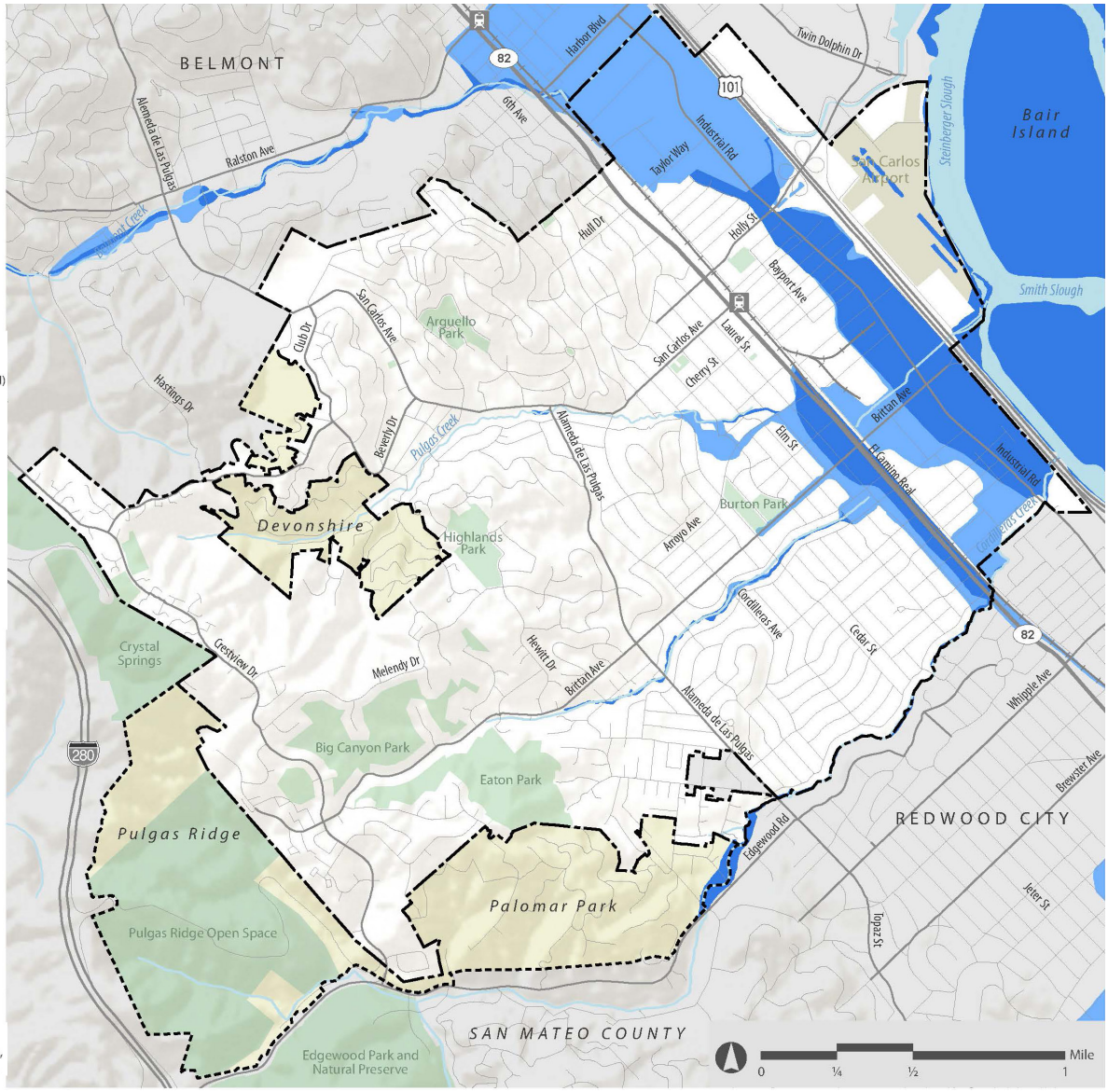
Flooding in the 100-year flood zone would not be expected to be more than a few feet deep. The greatest flood hazard would occur if a 100-year storm event coincided with an extremely high tide. Some areas of the city also experience localized flooding during the winter months, but this does not occur on a yearly basis. Winter flooding may increase as the effects of global climate change are felt, increasing the severity and frequency of winter storms, particularly during El Niño years.

The City has identified specific flooding issues associated with Pulgas, Cordilleras, and Brittan Creeks. Some of the prior flooding problems near Pulgas Creek may have been solved by improvements at the Pulgas Creek culvert under the railroad track. Upstream erosion from Cordilleras Creek deposited at El Camino Real is a major contributor to flooding.

Dealing with erosion deposits from Cordilleras Creek is difficult since only 25 percent of the runoff originates in San Carlos (the unincorporated County generates the majority of the runoff and Redwood City also contributes a small amount). In the past, flooding associated with Brittan Creek occurred at the intersection of Greenwood and Elm Streets due to a blocked trash trap in the storm drain. The City used redevelopment funds to correct the problem, but minor flooding still occurs at scattered sites that are not connected to storm drains. Excess capacity at the Pulgas Creek culvert could possibly be used to handle stormwater diverted along El Camino Real from Brittan Creek.

### Dam Inundation

A dam inundation zone is an area in which flooding could occur due to failure of an upstream dam, endangering people, and property within the zone in the instance of such a failure. Dam inundation can be caused by an earthquake or other catastrophe. There are three zones of dam inundation near San Carlos: Lower Crystal Springs Reservoir Dam Inundation Zone, Notre Dame Dam Inundation Zone and Lower Emerald Lake Dam Inundation Zone. However, there are no such zones in the City.




**FEMA Flood Zones**

- 1% Annual Chance (100-year flood)
- 0.2% Annual Chance (500-year flood)

**Base Map Features**

- City of San Carlos Boundary
- Sphere of Influence
- Major Streets
- Streets
- Caltrain Railroad and Stations
- Surrounding Jurisdictions
- Parks and Open Space
- Waterbodies
- San Carlos Airport

August 2020

Sources: FEMA, 2016. United States Census Bureau, 2019. NOAA, City of San Carlos, County of San Mateo, Urban Footprint, 2020.

*Source: MIG, 2022*

**Figure 4.9-1** FEMA Flood Zones

*Focused General Plan Update*

MIG

### 4.9.2 Regulatory Setting

#### Federal

Clean Water Act

The Clean Water Act (CWA) is the primary federal legislation governing water quality and forms the basis for several state and local laws throughout the nation. The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Important and applicable sections of the Act are:

- Section 404 authorizes the United States (U.S.) Army Corps of Engineers (USACE) to regulate the discharge of dredged or fill material to waters of the U.S., including wetlands. The USACE issues individual site-specific or general (Nationwide) permits for such discharges.

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines. The State implements Section 303 through the State Water Resources Control Board and Regional Water Quality Control Board (RWQCB), as discussed below. Section 304 requires the U.S. Environmental Protection Agency to publish water quality criteria that accurately reflects the latest scientific knowledge on the kind of effects and extent of effects that pollutants in water may have on health and welfare. Section 304 also provides guidance to the State in adopting water quality standards.

- Section 401 requires an applicant for any Federal permit that proposes an activity that may result in a discharge to "waters of the U.S." to obtain certification from the State that the discharge will comply with other provisions of the CWA. In California, a Water Quality Certification is provided by the State Water Resources Control Board and/or RWQCB.

- Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), which is a permitting system for the discharge of any pollutant (except for dredge or fill material) into waters of the U.S. In California, this permit program is administered by the RWQCBs, and is discussed in detail below.

National Pollutant Discharge Elimination System

The CWA has nationally regulated the discharge of pollutants to the waters of the U.S. (e.g., streams, lakes, bays, etc.) from any point source since 1972. In 1987, amendments to the CWA added Section 402(p), which established a framework for regulating nonpoint source storm water discharges under the National Pollutant Discharge Elimination System (NPDES) permit program. These regulations are implemented at the regional level by the Regional Water Quality Control Boards (RWQCBs). The City of San Carlos is within the jurisdiction of the San Francisco Bay RWQCB.

US Army Corps of Engineers

The United States Army Corps of Engineers' (USACE) Flood Risk Management Program maintains a National Levee Database of federally, State, and locally constructed, operated, and maintained levees throughout the United States. The USACE Flood Risk Management Program maps levees operated and maintained by San Mateo County along the Bayshore at the San Carlos Airport. These levees ensure most of the San Carlos Airport, also owned and operated by San Mateo County, is largely but not completely located outside FEMA flood hazard zones and is protected from flood damage (see Figure 4.9-1). However, the bayshore levees do not protect other areas of the City near the Bay that are located west of the airport.

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) established the National Flood Insurance Program (NFIP) to reduce impacts of flooding on private and public properties. The program provides subsidized flood insurance to communities that comply with FEMA regulations protecting development in floodplains. As part of the program, FEMA publishes Flood Insurance Rate Maps (FIRMs) that identify Special Flood Hazard Areas (SFHAs). An SFHA is an area that would be inundated by the one-percent annual chance flood, which is also referred to as the base flood or 100- year flood.

**State**

Porter-Cologne Water Quality Control Act

The state's Porter-Cologne Water Quality Control Act, as revised in December 2007 (California Water Code Sections 13000-14290), provides for protection of the quality of all waters of the State of California for use and enjoyment by the people of California. It further provides that all activities that may affect the quality of waters of the state shall be regulated to obtain the highest water quality that is reasonable, considering all demands being made and to be made on those waters. The Act also establishes provisions for a statewide program for the control of water quality, recognizing that waters of the state are increasingly influenced by interbasin water development projects and other statewide considerations, and that factors such as precipitation, topography, population, recreation, agriculture, industry, and economic development vary regionally within the State. The statewide program for water quality control is, therefore, administered most effectively on a local level with statewide oversight. Within this framework, the Act authorizes the State Water Resources Control Board and RWQCBs to oversee the coordination and control of water quality within California.

State Water Resources Control Board

Created by the California State Legislature in 1967, the State Water Resources Control Board holds authority over water resources allocation and water quality protection within the State. The five-member State Water Resources Control Board allocates water rights, adjudicates water right disputes, develops statewide water protection plans, establishes water quality standards, and guides

the nine RWQCBs. The mission of the State Water Resources Control Board is to, "preserve, enhance, and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations." The proposed project is under the jurisdiction of the San Francisco Bay RWQCB.

Statewide Construction General Permit

The SWRCB has implemented an NPDES General Construction Permit for the State of California (Construction General Permit). For projects disturbing one acre or more of soil, a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) must be prepared by a qualified professional prior to commencement of construction. The Construction General Permit includes requirements for training, inspections, record keeping, and, for projects of certain risk levels, monitoring. The general purpose of the requirements is to minimize the discharge of pollutants and to protect beneficial uses and receiving waters from the adverse effects of construction-related storm water discharges.

### Regional

San Francisco Bay Basin Plan

The San Francisco Bay RWQCB regulates water quality in accordance with the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). The Basin Plan lists the beneficial uses that the San Francisco Bay RWQCB has identified for local aquifers, streams, marshes, rivers, and the San Francisco Bay, as well as the water quality objectives and criteria that must be met to protect these uses. The San Francisco Bay RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements, including permits for nonpoint sources such as the urban runoff discharged by a City's stormwater drainage system. The Basin Plan also describes watershed management programs and water quality attainment strategies.

Municipal Regional Permit Provision C.3.

The San Francisco Bay RWQCB most recently re-issued the Municipal Regional Stormwater NPDES Permit (MRP) in May 2022 to regulate stormwater discharges from municipalities and local agencies (co- permittees) in Alameda, Contra Costa, San Mateo, and Santa Clara Counties, and the cities of Fairfield, Suisun City, and Vallejo. Under Provision C.3 of the MRP, new and redevelopment projects that create or replace 10,000 square feet or more of impervious surface area are required to implement site design, source control, and Low Impact Development (LID)-based stormwater treatment controls to treat post-construction stormwater runoff. LID-based treatment controls are intended to maintain or restore the site's natural hydrologic functions, maximizing opportunities for infiltration and evapotranspiration, and using stormwater as a resource (e.g., rainwater harvesting for non-potable uses). The MRP also requires that stormwater treatment measures be properly installed, operated, and maintained.

In addition to water quality controls, the MRP requires new development and redevelopment projects that create or replace one acre or more of impervious surface to manage development-

related increases in peak runoff flow, volume, and duration, where such hydromodification is likely to cause increased erosion, silt pollutant generation, or other impacts to local rivers, streams, and creeks.

Projects may be deemed exempt from these requirements if they do not meet the minimum size threshold, drain into tidally influenced areas or directly into the Bay, or drain into hardened channels, or if they are infill projects in subwatersheds or catchment areas that are greater than or equal to 65 percent impervious.

Municipal Regional Permit Provision C.12.f

Provision C.12.f of the MRP requires co-permittee agencies to implement a control program for PCBs that reduces PCB loads by a specified amount during the term of the permit, thereby making substantial progress toward achieving the urban runoff PCBs wasteload allocation in the Basin Plan by March 2030. Programs must include focused implementation of PCB control measures, such as source control, treatment control, and pollution prevention strategies. Municipalities throughout the Bay Area are updating their demolition permit processes to incorporate the management of PCBs in demolition building materials to ensure PCBs are not discharged to storm drains during demolition. As of July 1, 2019, buildings constructed between 1955 and 1978 that are proposed for demolition must be screened for the presence of PCBs prior to the issuance of a demolition permit.

San Mateo Countywide Water Pollution Prevention Program

The San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) is the local agency responsible for the oversight of implementation of the applicable provisions, including Provision C.3, of the MRP by local jurisdictions within San Mateo County.

Dam Safety

Dam failure is the uncontrolled release of impounded water behind a dam. Flooding, earthquakes, blockages, landslides, lack of maintenance, improper operation, poor construction, vandalism, and terrorism can all cause a dam to fail. Because dam failure that results in downstream flooding may affect life and property, dam safety is regulated at both the federal and state level. Dams under the jurisdiction of the California Division of Safety of Dams are identified in California Water Code Sections 6002, 6003, and 6004 and regulations for dams and reservoirs are included in the California Code of Regulations. In accordance with the state's Dam Safety Act, dams are inspected regularly and detailed evacuation procedures have been prepared for each dam. According to maps published by San Mateo County, there are no dam failure inundation areas within the City of San Carlos.

## Local

San Carlos General Plan

The Environmental Management and Community Services and Community Safety and Service Elements in the City's General Plan contains the following hydrology and water quality goals, policies and actions relevant to the proposed project:

*Goal EM-5*: Assure a high level of domestic water quality, promote water conservation and reduce toxics in run-off, including stormwater and the sanitary sewer system.

*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-5.2*: Promote the use of less toxic household and commercial cleaning materials.

*Policy EM-5.7*: Encourage site designs that manage the quantity and quality of storm water run-off.

*Policy EM-5.10:* Require the evaluation of potential groundwater depletion that could occur from new development through dewatering.

*Action EM-5.1*: Evaluate amending the Zoning Code to maximize permeable surfaces or other water catchment methods for new development as applicable.

*Action EM-5.2*: Utilize bioswales and other bio-filtration systems as applicable to cleanse run-off before it enters creeks and the San Francisco Bay.

*Action EM-5.4*: Implement Climate Action Plan measures to provide for water-efficient landscaping.

*Action EM-5.10*: Implement the NPDES Stormwater Permit and for those properties exempt from the Permit, require a stormwater pollution prevention plan, including use of best management practices, to control erosion and sedimentation during construction.

*Goal CSS-2*: Reduce hazards associated with flooding or inundation.

*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.

San Carlos Municipal Code

Three chapters of the San Carlos Municipal Code contain regulations pertaining to hydrology and water quality issues relevant to the proposed project, as described below.

*Chapter 12.08 – Grading and Excavations.* The purpose of this chapter is to provide minimum standards to safeguard life and limb, to protect property and property values, preserve natural beauty, promote public welfare, protect and enhance water quality of watercourses, water bodies and wetlands, and control erosion, sedimentation, and increases in surface runoff and related environmental damage caused by construction-related activities. This chapter requires projects which grade fifty or more cubic yards of material to obtain a grading permit, which includes the preparation of soils report and an erosion and sediment control plan, among other requirements.

*Chapter 13.14 – Stormwater Management and Discharge Control.* This Chapter, known as the "City of San Carlos Stormwater Management and Discharge Control Ordinance", contains provisions for eliminating non-stormwater discharges to the City's storm drain system; controlling the discharge of spills, dumping, or disposal of materials other than stormwater; and reducing pollutants in stormwater discharges to the maximum extent practicable. These provisions meet the requirements of the CWA and Municipal Regional NPDES permit. The City has the authority to inspect properties to ensure that the provisions of this title are implemented, as per Section 13.14.130.

*Chapter 18.18 – Landscaping.* Section 18.18.080 Water efficient landscaping and irrigation of this chapter requires that landscaping be designed and plantings selected so that water use is minimized. The estimated total water use (ETWU) of the proposed landscaping on a site must not exceed the maximum applied water allowance (MAWA).

*Chapter 15.56 – Floodplain Management.* This Chapter 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. Non-residential structures can either be elevated above the base flood elevation or be floodproofed below the base flood level. Compliance with Section 15.56.120 requires a development permit approval from the Floodplain Administrator for the City of San Carlos (i.e., the Building Official) that provides plans drawn to scale showing the nature, location, dimensions, and elevation of the area in question; the location and elevation of existing or proposed structures, fill, storage of material, and drainage facilities; and floodproofing provisions.

### 4.9.3 Thresholds of Significance

Consistent with CEQA Guidelines Appendix G, the project would have a significant impact on hydrology and water quality if it would:

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

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

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

   i. Result in substantial erosion or siltation on- or off-site;

   ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

   iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

   iv. Impede or redirect flood flows;

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

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

### 4.9.4 Impacts and Mitigation Measures

This section describes potential impacts related to hydrology and Water Quality which could result from the implementation of the Focused General Plan Update and recommends mitigation measures as needed to reduce significant impacts. Unless otherwise noted, impact discussions apply to both the Housing Element and Environmental Safety and Public Services Element aspects of the project.

***Impact HYD-1: The project would not violate any water quality standard or waste discharge requirements or otherwise substantially degrade surface or ground water quality. (Less Than Significant Impact)***

Water quality in the project area and surrounding jurisdictions is regulated by a number of federal, state, and county laws and regulations.

Runoff from the Project Area eventually discharges to San Francisco Bay via a network of creek channels and sloughs (receiving waters) as described above. The City's storm drain system collects stormwater runoff from streets, sidewalks and other impervious surfaces and discharges it directly into these receiving waters without any treatment for removal of contaminants. San Francisco Bay has impaired water quality due to pollutants, including trash, metals (copper, lead, zinc) oil and

grease that are carried by stormwater runoff. Metals, oil and grease are common stormwater runoff pollutants associated with roads and parking lots. Other sources of these pollutants include building materials (such as galvanized steel) that are other impervious surfaces in developed areas that are exposed to rain. Erosion and sedimentation from construction sites also contributes to stormwater runoff pollution.

In addition to the City of San Carlos' grading and building permit requirements, new development that would result from the proposed project would be subject to the applicable provisions of the MRP, primarily Provision C.3 which requires the implementation of proper site design, pollutant source controls and on-site LID-based runoff treatment controls in new development projects. As a co-permittee of the MRP, the City of San Carlos would be responsible for the review, approval and implementation of these measures, as well as with the implementation of the applicable requirements of statewide regulations such as the Construction General Permit during the construction phases of new development. As a result of the implementation of state, regional and local stormwater regulations being implemented by the City of San Carlos, impacts of the project on surface water quality would be less than significant.

***Impact HYD-2: The project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. (Less Than Significant Impact)***

There are nine groundwater basins with boundaries –either partial or whole—within San Mateo County. The low-lying (non-hillside) portions of the City of San Carlos are located within the approximately 60,000-acre San Mateo Plain groundwater subbasin.[1] The San Mateo Plain Subbasin underlies the bayside of San Mateo County from approximately the City of San Mateo on the north, to approximately the County boundary at San Francisquito Creek on the south. Currently, there is no entity actively managing the basin.

Implementation of the proposed project would result in an increase in water demand compared to existing conditions. However, groundwater is not used for municipal supply in San Carlos. The Mid-Peninsula Water District (MPWD) would provide potable water for new development in the City. MPWD does not use groundwater supplies to meet demand. Since the proposed project would not develop or increase the use of groundwater supplies, implementation of the project would not impact groundwater supplies. Further, new or redevelopment projects would include the installation of LID-based runoff treatment controls in conformance with the MRP, which would also increase the amount of pervious area on these sites and allow for greater groundwater recharge at the sites compared to existing conditions.

Groundwater depletion could occur from new development through dewatering particularly during subterranean construction activities. The implementation of Policy EM-5.10 and the related

[1] San Mateo County Office of Sustainability. Groundwater. Accessed at: https://www.smcsustainability.org/water/groundwater/ on August 2, 2022.

Actions (Actions 5.1, 5.2, 5.4 & 5.10, described above) would reduce potential groundwater depletion impacts resulting from new development through dewatering to a less than significant level.

***Impact HYD-3: The project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site, substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows. (Less Than Significant Impact)***

The proposed Environmental Safety and Public Services Element contains the following goals, policies, and actions that would reduce potential flooding impacts.

*Goal ESPS-2:* Reduce hazards associated with flooding and inundation.

*Policy ESPS-2.1:* Improve and maintain City storm drainage infrastructure in a manner that reduces flood hazards.

*Policy ESPS-2.2:* Maintain and prioritize restoration of a healthy riparian corridor in City-maintained flood control channels such as Pulgas Creek and Belmont Creek to reduce the risk of flooding due to erosion, siltation, blockage, and heavy undergrowth; and increase community access to channels with improved stormwater and flood management strategies.

*Policy ESPS-2.3:* Maintain a strong and enforceable Stream Development and Maintenance Ordinance for all city creeks and their tributaries.

*Policy ESPS -2.4:* Minimize impervious surfaces to reduce stormwater runoff and increase flood protection.

*Policy ESPS -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 ESPS -2.6:* Promote City staff knowledge and training on the relationship between watershed health and flood hazards.

*Policy ESPS -2.7:* Coordinate with neighboring jurisdictions on approaches to flooding and creek maintenance.

*Policy ESPS -2.8:* Continue to work with appropriate local, State, and federal agencies (such as FEMA, San Mateo County OneShoreline Program, City/County Association of Governments (CCAG) of San Mateo County, and San Francisco Bay Conservation and Development Commission (BCDC) to: (1) maintain the most current flood hazard and

floodplain information and use it as a basis for project review; and (2) create public-private partnerships to guide development in accordance with federal, State, and local standards.

*Policy ESPS -2.10:* Incorporate stormwater drainage systems in development projects to effectively control the rate and amount of runoff to prevent increases in downstream flooding potential.

*Policy ESPS -2.11:* 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.

*Action ESPS -2.1:* Consider participating in a regional Watershed Management Plan to perform technical analysis to understand geotechnical, biological, and hydraulic conditions to model the hydrography of the city and identify options to reduce flooding risk and where opportunities exist to restore creeks within the watershed to a more naturalized condition. Options could include detaining or retaining stormwater runoff in upper portions of the watershed, adding capacity in the lower portions of the watershed and maintaining existing creek and channel capacity through improved maintenance. The Watershed Management Plan would seek to balance the two primary functions of creeks: flood control and riparian habitat.

*Action ESPS-2.2:* Amend the Stream Development and Maintenance Ordinance to: (1) include all creeks and tributaries, including Pulgas Creek and Belmont Creek, to strengthen the effectiveness of existing policies and to create vital and accessible community open space with improved stormwater and flood management strategies; (2) increase the required setbacks and landscaping provisions from the existing creek top to improve stormwater detention capacity and to help address flooding issues and creek restoration; (3) prohibit general vehicle access along the creek within the Stream Development Ordinance overlay district.

*Action ESPS -2.6:* Seek to have property owners downstream of city limit maintain drainage channels in a responsible manner to avoid flooding.

*Action ESPS -2.7:* Initiate flood insurance rate map revisions for City projects.

Due to the developed nature of the project area and the MRP requirements for future development projects to implement LID-based site design and stormwater treatment controls, future new and redevelopment of the project area would not generate substantial off-site flooding during storm events. Compliance with the construction best management practices requirements of the Construction General Plan would also reduce impacts related to erosion and sedimentation on construction sites as well as on receiving waters off-site. Future projects located within the Special Flood Hazard Areas (SFHAs) would additionally be subject to FEMA restrictions and applicable provisions of the City's Municipal Code and General Plan. As previously stated, Chapter 15.56 of the Code (Floodplain Management). establishes 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. Existing

Environmental Management Element Action EM-5.10 requires implementation of the NPDES permit or preparation of a stormwater prevention plan and proposed ESPS Element Policies ESPS-2.4 and ESPS-2.10 (see Chapter 4.8 Hazards and Hazardous Materials) increase flood protection through reductions in impervious surface area and by requiring new development projects to incorporate storm drain systems that control runoff rates and volumes thereby preventing increases in downstream flooding potential.

Through implementation of the required measures of the MRP, Construction General Permit, FEMA, San Carlos Municipal Code and existing and proposed General Plan policies and actions, the project would not result in substantial erosion or siltation on- or off-site, substantial increases in the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, generation of stormwater runoff that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or impede or redirect flood flows. Therefore, the impact is considered less than significant.

**Impact HYD-4: The project area includes areas that are subject to flooding during the 100-year and 500-year storm events, however the risk of release of pollutants due to project inundation would be reduced through implementation of Municipal Code and MRP requirements. (Less Than Significant Impact)**

As previously stated, the project area includes areas subject to inundation by the 100-year and 500-year floods (refer to Figure 4.9-1).

A tsunami is a large tidal wave generated by an earthquake, landslide, or volcanic eruption. Tsunami inundation maps have been developed that show tsunami hazard zones for the San Francisco Bay area. There are no tsunami hazard zones within the City of San Carlos; therefore, it would not be subject to flooding from a tsunami (California Department of Conservation, 2021).

Seiches are waves that oscillate in enclosed water bodies, such as reservoirs, lakes, ponds, swimming pools, or semi-enclosed bodies of water, such as San Francisco Bay. The project site is 0.5 miles west of the San Francisco Bay; however, as it is not within the tsunami hazard zone for the Bay, the site is not expected to be inundated by a seiche (California Department of Conservation, 2021).

Although the certain areas of the City are at risk of inundation from flooding during storm events, the risk of flooding would be reduced through compliance with the City's Municipal Code Chapter 15.56 (Flood Damage Prevention). Section 15.56.080 requires a development permit to be obtained before construction begins in a SFHA. City building permits serve as the vehicles for permitting development in the floodplain. Municipal Code Section 15.56.120 sets forth construction requirements for development that would minimize flood hazard risks.

Compliance with Chapter 15.56 of the Municipal Code would identify measures to help prepare future development sites in the event of a flood and would help reduce the potential for pollutants

at known contamination sites within SFHAs from being released into the environment in the event of a flood. (see Section 4.8 Hazards and Hazardous Materials for additional analysis)

In addition to Municipal Code requirements, to comply with C.3 provisions of the MRP, post construction BMPs are required to protect water quality at the site. Project applicants would be required to prepare Stormwater Operations and Maintenance Plans which detail stormwater pollutant source controls to be incorporated into the projects. The risk of pollutant release due to new project inundation is expected to be low based on the requirements set forth in the City's Municipal Code and Provision C.3. This impact would be less than significant.

**Impact HYD-5: The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. (Less Than Significant Impact)**

The project, which would allow increases in the number of housing units to be built in the City, would not conflict with or obstruct the implementation of any water quality control plans or sustainable groundwater management plan. Conformance with regulatory requirements for surface water quality protection and reducing flooding risks, as described above, would be required of all new or redevelopment projects in the City, resulting in less than significant impacts. As discussed, the project would not impact existing groundwater.

### 4.9.5 References

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# 4.10 LAND USE

This EIR section addresses the project's potential impacts on land use and planning and suggests mitigation measures, if required.

## 4.10.1 Environmental Setting

### Project Area

The San Carlos project area consists of 10,348 parcels encompassing 3,570 acres. The project area includes the City's 2,805 acres and the 765 sphere of influence (SOI) acres. The SOI includes three areas of unincorporated San Mateo County: the Devonshire Area, which includes Devonshire Canyon and a nearby 17-acre area adjacent to Club Drive, Cranfield Avenue, and the City of Belmont; Palomar Park; and Pulgas Ridge (formally known as the Hassler Area).

### Existing Land Use

Residential uses are the predominant land use in San Carlos, and account for more than half of the total land area. Mixed-use land uses total eight acres, less than one percent of city land uses. Commercial and light industrial land uses comprise 14 percent and public facilities and institutions makes up nine percent. Park and open space uses encompass approximately 307 acres or 19 percent of city land uses. Parking uses total 20 acres or less than one percent, while vacant land makes up three percent of the project area. A summary of land uses within the City is provided in Table 4.10-1. A map showing existing land uses is included as Figure 2-3, and the existing General Plan Land Use Map is Figure 2-4, both included in the Project Description Chapter.

**Table 4.10-1: Existing Land Uses**

| | San Carlos (City) | | Sphere of Influence (SOI) | | Project Area Total | |
|---|---|---|---|---|---|---|
| | Acres | Percent of City Land Use | Acres | Percent of SOI Land Use | Acres | Percent of All Land Use |
| **Residential** | **1,717.8** | **61.2%** | **252.5** | **33.0%** | **1,970.3** | **55.2%** |
| Single-Family | 1,553.2 | 55.4% | 249.4 | 32.6% | 1,802.6 | 50.5% |
| Multi-Family | 164.6 | 5.9% | 3.1 | 0.4% | 167.7 | 4.7% |
| **Mixed-Use** | **8.0** | **0.3%** | **-** | **-** | **8.0** | **0.2%** |
| **Commercial** | **212.3** | **7.6%** | **13.8** | **1.8%** | **226.1** | **6.3%** |
| Retail | 95.5 | 3.4% | 13.8 | 1.8% | 109.3 | 3.1% |
| Office/Commercial | 116.8 | 4.2% | - | - | 116.8 | 3.3% |
| **Industrial** | **261.5** | **9.3%** | **-** | **-** | **261.5** | **7.3%** |
| Industrial | 162.8 | 5.8% | - | - | 162.8 | 4.6% |
| Warehousing | 98.7 | 3.5% | - | - | 98.7 | 2.8% |
| **Public Facilities and Institutions** | **251.2** | **9.0%** | **59.4** | **7.8%** | **310.6** | **8.7%** |
| Civic | 2.9 | 0.1% | 20.9 | 2.7% | 23.8 | 0.7% |
| Institutional | 12.2 | 0.4% | - | - | 12.2 | 0.3% |
| Schools/Education Facilities | 66.7 | 2.4% | 15.4 | 2.0% | 82.1 | 2.3% |

| Table 4.10-1: Existing Land Uses | | | | | | |
|---|---|---|---|---|---|---|
| | **San Carlos (City)** | | **Sphere of Influence (SOI)** | | **Project Area Total** | |
| | **Acres** | **Percent of City Land Use** | **Acres** | **Percent of SOI Land Use** | **Acres** | **Percent of All Land Use** |
| Transportation/Utilities | 169.3 | 6.0% | 23.1 | 3.0% | 192.5 | 5.4% |
| **Parks and Open Space** | **306.7** | **10.9%** | **360.8** | **47.1%** | **667.5** | **18.7%** |
| Parks/Recreation | 164.6 | 5.9% | 357.4 | 46.7% | 522.0 | 14.6% |
| Open Space/Natural Resources | 142.0 | 5.1% | 3.4 | 0.4% | 145.4 | 4.1% |
| Agriculture | 0.1 | 0.004% | - | - | 0.1 | 0.003% |
| **Parking** | 19.9 | 0.7% | 0.5 | 0.1% | 20.4 | 0.6% |
| **Vacant** | **27.9** | **1.0%** | **77.8** | **10.2%** | **105.7** | **3.0%** |
| **Total** | **2,805.3** | **100%** | **764.7** | **100%** | **3,570.01** | **100%** |

Source: Existing Conditions Atlas, San Carlos 2040.

*Residential Uses.* Residential uses, which are the largest land use category, account for 55 percent of the project area. Residential uses are comprised of single-family, multi-family, and mixed use categories. Single-family use is generally considered one house per lot. Single-family residential use is over 50 percent of the entire project area and is located throughout San Carlos, including east of El Camino. Multi-family use is generally considered more than one housing unit on a lot. Multi-family use can include stacked flats and townhomes. Like single-family use, multi-family uses are found throughout the project area. Mixed-use combines residential use either vertically or horizontally with a non-residential use, typically a commercial use. Mixed-use primarily occurs along El Camino Real. Over 90 percent of all residential land use is single-family land use.

Low residential density (defined as up to twenty units per net acre, in accordance with the San Carlos Zoning Ordinance) and medium residential density (up to 59 units per net acre) uses are concentrated in the east-central portion of San Carlos between San Carlos Avenue, Cherry Street, and Laurel Street west of El Camino Real and US-101. Of the single-family residential zoning districts, the most predominant is the RS-6 Single Family Zoning District, located throughout San Carlos and west of US 101.

Medium density residential development allows for densities of up to 59 units per acre and accommodates stacked flats, townhomes, and rowhouses developed at a scale and form appropriate to neighborhood context and adjacent single-family residential uses. Medium density residential development is concentrated in the Downtown area, Laurel Street and the El Camino Real corridor. Medium density housing is also found along the southern edge of the Devonshire area and along San Carlos' western boundary.

Accessory dwelling units (ADUs) are another residential form found in San Carlos. San Carlos allows ADUs to be established on any lot in any zoning district where a primary single-unit dwelling has been previously established or is proposed to be established in conjunction with construction of a second unit.

*Mixed-Use Districts.* Mixed-use development combines two or more types of land use into a building or set of buildings that are physically and functionally integrated and mutually supporting. This can be a combination of residential, commercial, office, institutional, or other land uses. Mixed-use development accommodating 50 or more units per acre occurs along the eastern portion of El Camino Real corridor east of San Carlos Avenue, with the highest allowed density occurring in the Mixed Use – San Carlos Avenue zoning district. Mixed-use districts account for less than one percent of the total land use in San Carlos.

*Other Land Uses.* Other land uses include light and heavy industrial, general commercial, landmark commercial, neighborhood retail, airport, planned development, parks, and open space.

Commercial development covers six percent of the project area. Office commercial uses containing business, professional, and medical services make up three percent, while industrial uses make up seven percent of total land area. Industrial uses include large manufacturing businesses, biotechnical and biomedical firms, and light and heavy industrial uses. Industrial uses are predominately located east of US 101 and between US 101 and El Camino Real. San Carlos Airport is located at the City's eastern edge on land owned by San Mateo County.

*Vacant Land Uses.* Little vacant land exists within San Carlos (approximately three percent of the project area). Vacant land is defined as having no building structures constructed on the land. Vacant land does not include parks or open space, which is "vacant" or open by design. Vacant land can occur in each of the General Plan and zoning designated areas.

### Airport Land Use Planning

The City/County Association of Governments of San Mateo County (C/CAG) Board of Directors serves as the airport land use commission for San Mateo County. The Airport Land Use Commission reviews proposals for general plans, specific plans, zoning ordinances, and land use development proposals in the vicinity of the San Carlos Airport to ensure that future land uses in the surrounding area remain compatible with the realistically foreseeable, ultimate potential aircraft activity. The Commission adopted the Comprehensive Airport Land Use Compatibility Plan for the Environs of the San Carlos Airport in 2015. The Land Use Compatibility Plan sets forth land use compatibility criteria, compatibility zones, development standards, and policies pertaining to noise, safety, airspace protection, and overflight standards, and establishes the planning boundaries that define height, tall structures, noise, and safety zones for policy implementation.

## 4.10.2 Regulatory Setting

### State

<u>California Government Code Sections 65580-65589 Housing Elements</u>

Unlike most other General Plan elements, the Housing Element requires periodic updating and is subject to detailed statutory requirements and mandatory review by the State of California

Department of Housing and Community Development (HCD). According to State law, the Housing Element must:

- Provide goals, policies, quantified objectives, and scheduled programs to preserve, improve, and develop housing.
- Identify and analyze existing and projected housing needs for all economic segments of the community.
- Identify adequate sites that are/will be zoned and available for housing during the Housing Element planning period — between 2023 and 2031 — to meet the City's share of regional housing needs at all income levels.
- Undergo HCD review of the Draft Housing Element and certification of the City's adopted Housing Element in compliance with state law.

State law establishes detailed content requirements for Housing Elements and establishes a regional "fair share" approach to distributing housing throughout all communities in the Bay Area, inclusive to people of all incomes. The law recognizes that in order for the private sector and non-profit housing sponsors to address housing demand and build housing, local governments must adopt land use plans and zoning regulations that provide opportunities for—and do not unduly constrain—housing development.

The Housing Element must provide clear policies and direction for making decisions related to zoning, subdivision approval, and capital improvements (transportation infrastructure, sewer, water, storm drainage, gas, electricity, etc.) that relate to housing needs.

*California Government Code Section 65302 and Other Pertinent State Laws Relating to General Plans.* California Government Code Section 65302(g)(1) establishes the legislative framework for California's Safety Elements. This framework consolidates the requirements from relevant federal and state agencies, ensuring that all jurisdictions are compliant with the numerous statutory mandates. These mandates include:

- Protecting against significant risks related to earthquakes, tsunamis, seiches, dam failure, landslides, subsidence, flooding, and fires as applicable.
- Including maps of known seismic and other geologic hazards.
- Addressing evacuation routes, military installations, peak-load water supply requirements, and minimum road widths and clearances around structures as related to fire and geologic hazards, where applicable.
- Identifying areas subject to flooding, sea level rise, and wildfires.
- Avoiding locating critical facilities within areas of high risk.
- Assessing the community's vulnerability to climate change and including adaptation and resilience goals, policies, and implementation actions.

## Regional

Association of Bay Area Governments - Regional Housing Needs Allocation

Since 1969, the State of California has required each local government to plan for its share of the state's housing needs for people of all income levels. Through the RHNA process, every local jurisdiction is assigned a number of housing units representing its share of the state's housing needs for an eight year period. State Housing Element Law requires the Association of Bay Area Governments (ABAG) to develop a methodology for distributing the Bay Area's portion of the state housing needs to local governments within the nine county region.

ABAG adopted its final 2023-2031 RHNA plan for the Bay Area on December 16, 2021 and the HCD approved the plan on January 12, 2022. The region's nine counties and 101 cities are collectively responsible for developing 441,176 new housing units during the 2023-2031 period. The City of San Carlos's allocation is for 2,735 housing units during the 2023-2031 6$^{th}$ Cycle Housing Element Update.

Plan Bay Area 2050

*Plan Bay Area 2050* is a long-range plan for the nine-county San Francisco Bay Area. *Plan Bay Area 2050* focuses on four key elements — housing, the economy, transportation and the environment — and identifies a path to make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges. The population in the region is expected to grow from around 7.8 million residents today to over 10 million residents by 2050. The region is forecast to add 1.4 million new jobs, for a total of 5.4 million Bay Area workers. *Plan Bay Area 2050* states that the Bay Area will need to build 1.36 million new homes by 2050 to meet this forecasted future demand.

*Plan Bay Area 2050's* core strategy is "focused growth" in existing communities along the existing transportation network. This strategy is intended to leverage existing infrastructure and minimize impacts to less developed areas. The focused growth strategy targets four types of Growth Geographies:

- **Priority Development Areas (PDAs):** Areas generally near existing job centers or frequent transit that are locally identified (i.e., identified by towns, cities or counties) for housing and job growth.
- **Priority Production Areas (PPAs)**: Locally identified places for job growth in middle-wage industries like manufacturing, logistics or other trades. An area must be zoned for industrial use or have a predominantly industrial use to be a PPA.
- **Transit-Rich Areas (TRAs)**: Areas near rail, ferry or frequent bus service that were not already identified as PDAs. Specifically, these are areas where at least 50 percent of the area is within 1/2 mile of either an existing rail station or ferry terminal (with bus or rail service), a bus stop with peak service frequency of 15 minutes or less, or a planned rail station or planned ferry terminal (with bus or rail service).

- **High-Resource Areas (HRAs):** State-identified places with well-resourced schools and access to jobs and open space, among other advantages, that may have historically rejected more housing growth. This designation only includes places that meet a baseline transit service threshold of bus service with peak headways of 30 minutes or better.

## Local

San Carlos General Plan

The 2009 General Plan provides the fundamental basis for the City's land use and development policy, and represents the basic community values, ideals and aspirations to govern a shared environment over the life of the General Plan, which is to the year 2030. The General Plan includes the following elements: Land Use; Housing; Circulation and Scenic Highways; Environmental Management; Parks and Recreation; Community Safety and Services; and Noise.

All development in the city must conform to the land use designations outlined in the General Plan. Goals, policies and actions and implementation measures contained in the Land Use Element of the General Plan provide guidance on how land use designations should be developed. Under State law, the City's General Plan is the primary planning document and all other City plans and policies must be consistent with the adopted General Plan.

The General Plan includes the following applicable policies:

*Policy LU-1.2:* Encourage development of higher density housing and support additional job growth within the TOD corridor while being sensitive to surrounding uses.

*Policy LU-1.5:* Support land use patterns in the TOD corridor that will attract and serve riders of public transit.

*Policy LU-1.7:* Encourage mitigation of parking conflicts between different land uses.

*Policy LU-1.11:* Preserve existing open space by supporting urban infill.

*Policy LU-2.6:* Support active ground floor uses such as retail, restaurants and services and, on Laurel Street between Holly Street and Eaton Avenue, limit residential uses to upper floors.

*Policy LU-2.7:* Encourage residential and other uses in the Downtown Laurel Street area that contribute to the Downtown's vibrancy and activity.

*Policy LU-2.9:* Continue to allow shared parking between commercial and residential uses.

*Policy LU-3.9:* Promote development opportunities for regular physical activity by locating residential developments near services.

*Policy LU-5.6:* Strive for a balanced ratio of jobs and housing units.

*Policy LU-8.19:* Residential structures shall be designed to be compatible with existing structures in the vicinity, avoid obstructing views from adjacent structures or views of community importance, avoid interference with the right or ability to use solar energy and be consistent with the community design principles.

*Policy LU-8.20:* Require all new residential, multi-family residential, commercial, and industrial projects subject to design review by the appropriate decision making body for compliance with site planning, architecture, signing and landscaping criteria prior to approval.

*Policy LU-9.1:* Maintain and enhance neighborhoods to be safe and attractive.

*Policy LU-9.2:* Support resident-driven neighborhood efforts that strengthen identity and protect and/or enhance neighborhood character and complement the principles, goals, policies and actions of the General Plan.

*Policy LU-9.3:* Assure that redevelopment, public or private, mitigates any negative traffic and parking impacts on or adjacent to residential neighborhoods.

*Policy LU-9.4:* Mitigation measures shall be utilized to the greatest extent feasible for neighborhoods surrounding new proposed development.

*Policy LU-9.5:* Require buffering, screening, setbacks, or other measures for new and expanded multi-family residential and/or commercial/industrial developments adjacent to single-family residential neighborhoods to minimize impacts and compatibility conflicts.

*Policy LU-9.11:* Require and monitor adequate parking and/or parking alternatives for new schools, parks and other public uses within residential neighborhoods.

*Policy LU-9.12:* Ensure that development in residential areas is compatible with neighborhood character.

*Policy LU-9.13:* Require appropriate transitions of building scale, massing and height to adjacent single-family homes.

*Policy LU-9.14:* Legally nonconforming multi-family residential structures located within multi-family residential zoning districts may be replaced, restored, rebuilt, or repaired and used consistent with the Zoning Ordinance in effect at the time the structure was originally constructed only upon issuance of a conditional use permit approved by the Planning Commission.

*Policy LU-9.20:* Conversion of existing rental housing stock to condominiums shall be permitted only when it can be shown that:

- The vacancy rate in rental units in the city is in excess of 5 percent.
- Adequate provisions are made for the protection of tenants including relocation assistance.

*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 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-1.5:* 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.

*Policy CSS-1.6:* Continue to encourage retrofitting of structures, particularly older buildings, to withstand earthquake shaking and landslides, consistent with state Building Codes and Historic Building Codes.

*Policy CSS-1.7:* Continue to incorporate geotechnical hazard data into future land use decision- making, site design and construction standards.

*Policy CSS-3.1:* Evaluate fire response needs of the Fire Department as new development and redevelopment continues within city limit.

*Policy CSS-3.6:* Continue to enforce building code regulations that minimize fire hazards in areas subject to a very high fire severity zone (VHFSZ) risk west of Alameda de las Pulgas and prohibit any structural development in areas where wildland urban fire hazards cannot be mitigated under an agreement addressing alternate means of protection and materials agreement.

*Policy CSS-3.9:* Support “early review” of proposed development by the Belmont-San Carlos Fire Department and institute impact fees to ensure adequate all-risk fire equipment for the community.

*Policy CSS-3.10:* Continue to require all new development to provide all necessary water service, fire hydrants and road improvements consistent with City standards and the California Fire Code.

*Policy CSS-3.11:* Ensure that in existing developed areas within the city there is an acceptable level of fire safety and emergency medical/paramedic services.

*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-7.2:* Establish and regularly monitor levels of service of San Carlos' public facilities and services.

*Policy CSS-7.8:* Approve rezoning and development permits only when adequate services are available, or when a program to provide services has been approved by the applicable district and the City.

*Policy CSS-7.9:* Ensure that adequate public services and facilities are planned and constructed to accommodate the population of the city.

*Policy CSS-8.4:* Evaluate through the California Environmental Quality Act (CEQA) process how new development impacts schools, as the quality of San Carlos schools is a primary asset of the city.

*Policy NOI-1.5:* New development of noise-sensitive land uses proposed in noise-impacted areas shall incorporate effective mitigation measures into the 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 Ldn (day/night average noise level) for exterior noise in private use areas.

b. For new multi-family residential development maintain a standard of 65 Ldn 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 Ldn in all new residential units (single- and multi-family). Development sites exposed to noise levels exceeding 60 Ldn 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.

*Policy 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.

San Carlos Municipal Code

The Zoning Ordinance and Subdivision Ordinance of the San Carlos Municipal Code regulate land use in the city. San Carlos' Zoning Ordinance is contained in Title 18 of the Municipal Code. The Zoning Ordinance is the mechanism used to implement the goals, objectives and policies of the General Plan and to regulate all land use within the city. The Subdivision Ordinance, contained in Title 17 of the Municipal Code, implements the Subdivision Map Act of the State of California by regulating the design and improvement of subdivisions in San Carlos.

### 4.10.3 Thresholds of Significance

The project would result in a significant land use impact if it would:

a. Physically divide an established community; or

b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

### 4.10.4 Impacts and Mitigation Measures

This section analyzes potential land use impacts that would result from implementation of the project. It begins with the criteria of significance which establish the thresholds to determine whether an impact is significant. The latter part of this section describes potential impacts associated with the project and identifies mitigation measures to address these impacts, as needed.

It should be noted that policy conflicts do not, in and of themselves, constitute a significant environmental impact unless it is a policy adopted for the purpose of avoiding or mitigating an environmental effect and the inconsistency would result in a significant adverse physical impact. Please note that planning documents that pertain to specific technical topics (e.g., Noise) are discussed in those topical sections of this Draft EIR.

***Impact LAND-1: The project would not physically divide an established community. (Less Than Significant Impact)***

**Housing Element Update**

The physical division of an established community typically refers to the construction of a physical feature (such as a new freeway, railway, or other large transportation projects, or propose land development in a manner that would substantially alter existing movement patterns.) or the removal of a means of access (such as a bridge) that would impede or restrict movements within a community. It also may refer to policies that limit or preclude access between adjacent areas or neighborhoods within a city. The proposed Focused GPU does not propose major circulation

changes or changes in land development that would restrict access to any particular areas of the City.

Implementation of the Housing Element Update would result in the construction of additional residential units but no major infrastructure or circulation changes are proposed as part of this project. The project would have a less than significant.

**Environmental Safety and Community Services Element Update**

The proposed Environmental Safety and Public Services Element contains goals, policies, and actions to reduce the risks associated with environmental hazards. The proposed goals, policies, and programs focus on building the resilience of the community and the built environment against hazards, including geologic and seismic hazards, flooding, wildfire, poor air quality and climate change effects, hazardous materials, and aviation hazards from the San Carlos Airport. No major infrastructure or circulation changes which would physically divide an established community are proposed as part of the Environmental Safety and Community Services Element Update. The potential impact would be considered less than significant.

***Impact LAND-2: The 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. (Less Than Significant Impact)***

This section includes a discussion of potential conflicts between the project and applicable planning documents. It should be noted that policy conflicts do not, in and of themselves, constitute a significant environmental impact. However, policy inconsistency is considered to be a significant adverse environmental impact when it is related to a policy adopted for the purpose of avoiding or mitigating an environmental effect and it is anticipated that the inconsistency would result in a significant adverse physical impact. Please note that planning documents that pertain to specific technical topics (e.g., Air Quality) are discussed in those topical sections of this Draft EIR.

**General Plan Updates**

The Housing Element Update and the Environmental Safety and Community Services Element Update would be adopted as part of the General Plan. The updated elements would comply with State Planning Law requirements for these general plan elements, and the proposed housing sites identified within the Housing Element Update would allow the City to meet its RHNA allocation as identified by ABAG.

The project also includes updates to the General Plan Land Use, Environmental Management, Noise, and Circulation and Scenic Highway elements for internal consistency with the Housing Element and Environmental Safety and Community Services Updates. Additionally, the General Plan Land Use Map will also be updated to reflect the changes in zoning required to support the Housing Element and the Zoning map will be amended. The new General Plan Land Use Map and zoning designations are presented in Figures 3-7 and 3-8 in Chapter 3 Project Description.

Environmental Safety and Community Services Element Update

The Environmental Safety and Community Services Element contains goals, policies, and actions intended to protect the public and infrastructure from environmental hazards. Many of the policies would have either direct or indirect impacts on existing and future land uses in terms of protecting uses and structures from environmental hazards and incorporating climate resiliency planning, including for wildfire and sea level rise into the City's planning processes. The Environmental Safety and Community Services Element has been prepared consistent with other General Plan elements, as well as state and regional requirements including CAL FIRE requirements for wildfire planning in Safety Elements, the San Mateo County Multi-Jurisdictional Local Hazard Mitigation Plan, and San Mateo County One shoreline's approach to sea level rise.

Land Use Element Update

The following are the proposed changes to the current General Plan Land Use Element policies and actions text (proposed new text is shown in underline while deleted text is shown with ~~strikethrough~~):

- Policy LU-1.6 Consider reduced parking requirements for multi-family residential and mixed-use projects within the TOD corridor. ~~Reduced parking requirements may be permitted only if a parking study is submitted demonstrating that the reduced parking is adequate to accommodate on-site parking demand associated with the project.~~

- Action LU-1.8 Amend the Zoning Ordinance to address the new multiple family and mixed use designations.

- Policy LU-8.2 Ensure that new development ~~is sensitive~~ sensitively transitions to the character of adjacent structures and the immediate neighborhood.
- Policy LU-8.7 Encourage ~~Require~~ new residential development to provide outdoor areas and landscaping or native vegetation, or tree canopy to enhance the surroundings.

- Policy LU-8.19 Residential and mixed use structures shall be designed to be compatible with existing structures in the vicinity, ~~avoid~~ minimize obstructing views from adjacent structures or views of community importance, ~~avoid~~ minimize interference with the right or ability to use solar energy and be consistent with the community design principles.

- Policy LU-8.20 Require all new residential multi-family residential, commercial and industrial projects subject to design review by the appropriate decision- making body for compliance with site planning, architecture, signing and landscaping criteria prior to approval**,** as permitted by State law**.**
- Action LU-8.~~5~~4 Develop objective design standards consistent with State law and amend ~~Amend~~ the Zoning Ordinance and Planning Department application submittal checklist to require information and materials that accurately and sufficiently demonstrate a project's compliance with ~~architectural façade and design policies~~ new objective design standards.

- Policy LU-9.5 Require buffering, screening, transitional standards, or other measures for new and expanded multi-family residential, mixed use, and/or commercial/industrial developments adjacent to single-family residential neighborhoods to minimize impacts.

- Policy LU-9.10 In the event of closure of a school, the primary planned use of these sites remains for school and associated recreation purposes, or housing**.** The school site should be considered for acquisition by the City.

- Policy LU-9.14 Legally nonconforming multi-family residential structures located within multi-family residential zoning districts may be replaced, restored, rebuilt, or repaired and used consistent with the Zoning Ordinance in effect at the time ~~the structure was originally constructed only upon issuance of a conditional use permit approved by the Planning Commission.~~at the time of the replacement, restoring, rebuilding, or repairing.

- Action LU-9.2 Amend the Zoning Ordinance to include objective design standards, transitional design standards for multi-family residential buildings and commercial uses adjacent to single-family homes**,** as appropriate.

- Policy LU-10.6 Require all new development and significantly modified development in the High and Very High Fire Susceptibility Zones to install and maintain fire prevention design and materials in accordance with Building Codes at the time of the construction/reconstruction.

Circulation and Scenic Highway Element Update

The Circulation and Scenic Highway Element is updated to ensure consistency with the Housing and the Environmental Safety and Public Services Elements. Two policies are updated as follows (edits shown in underline text):

- Policy CSH-1.1. Widths of streets and highways should be sufficient to address existing and projected traffic volumes, emergency access requirements, while providing positive pedestrian and bicycle experiences.
- Policy CSH-3.5. Street and right-of-way widths should be designed and constructed in accordance with the street standards established in this plan, the City Subdivision Ordinance and Standard Details. However, flexibility for street widths should be permitted with sensitivity to slope, neighborhood character, traffic volume, emergency access requirements, and pedestrian/bicycle needs.

Environmental Management Element Update

One action is updated to ensure consistency with the Housing and the Environmental Safety and Public Services Elements.

- Action EM-11.3. Design streets to accommodate all modes of transportation, including emergency vehicles, and provide for a safe and attractive pedestrian experience.

Noise Element Update

One policy is updated to ensure consistency with the Housing and the Environmental Safety and Public Services Elements.

- Policy NOI-1.5B. For new multi-family residential development maintain a standard of 65 Ldn 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.

Conclusion

Future housing development associated with implementation of the Housing Element Update would be required to be consistent with the General Plan and all new development would be required to be consistent with the Environmental Safety and Community Services Element, including policies and programs adopted for the purpose of avoiding or reducing adverse physical effects on the environment, including the revised policies listed above. This also applies to the revised policies listed for the Environmental Management and Noise elements. Future housing projects would be reviewed for adherence to the General Plan and the applicable zoning regulations. The General Plan contains many policies, some of which may compete with each other. The Planning Commission and City Council, in deciding whether to approve a proposed project, will decide whether, on balance, a project is consistent with the General Plan. The proposed project would therefore not result in a significant environmental impact due to a conflict with the General Plan.

**Title 18 Municipal Code (Zoning) Amendments**

Amendments to the City's Zoning Ordinance (Title 18 of the San Carlos Municipal Code) would be initiated to allow for fulfilment of the City's RHNA by increasing the residential density within certain zoning designations, as well as by creating new zoning designations. The proposed Zoning Ordinance amendments are anticipated to include single-family residential (e.g., in response to SB-9), multi-family residential and mixed-use categories, which would provide for development of some lower-level commercial/retail, and office. New zoning designations would include Multi-Family and Mixed-Use designations that would allow up to 120 dwelling units per acre. The new, higher density residential and mixed-use zoning designations would occur primarily along the El Camino Real corridor, San Carlos Avenue corridor, and in the Downtown area west of El Camino Real.

In addition to the proposed density increases, the City proposes to revise required Development Standards for residential and mixed-use zoning districts such as setbacks, FAR, parking, landscaping, private open space, and other development related requirements. The Land Use and Zoning Maps will also be updated to reflect these changes (see Figures 3-7 and 3-8).

As discussed above, the Land Use Element would be updated to ensure consistency with the Housing and the Environmental Safety and Public Services Elements. These updates would ensure

consistency between the General Plan and Title 18, Zoning as required by State law. New Multi-Family (RM-100) and Mixed-Use General Plan Land Use designations would be created along the El Camino Real and San Carlos Avenue corridors and the Downtown area west of El Camino Real. Zoning districts would be updated to correspond to the new General Plan land use designations. Table 3-5: Proposed Zones and Densities in Chapter 3 Project Description shows the existing and new zoning mixed use categories with the existing and proposed density per acre.

The proposed amendments also include updating the development/design standards to remove housing development constraints (such as setbacks, height, parking, and open space requirements) and reflect recent changes in State law, and to better reflect current development practices and the new density changes. These proposed amendments reflect the City's planning for additional single units (e.g., anticipated units from SB9 and ADUs), and additional multi-unit housing types in the multi-unit zones and in the mixed-use zones. New and amended zoning designations would include Multi-Unit and Mixed-Use designations that would allow up to 120 dwelling units per acre along El Camino Real and San Carlos Avenue.

The project includes programs with amendments to the Development Code to be enacted after adoption of the Housing and Environmental Safety and Public Services Elements Update project; however, this EIR contemplates these actions as implementing programs and activities of the project. The purpose of the amendments is to make Title 18 consistent with the goals, policies, and programs of the project. Amendments to Title 18 necessary to implement these programs will be adopted for the "opportunity sites," to implement the Housing and Safety Elements, and as necessary to meet the RHNA. The proposed project would therefore not result in a significant environmental impact due to a conflict with the zoning ordinance.

Future development of inventory sites with new dwelling units would be required to be consistent with the amended General Plan and zoning designations, as well as applicable development standards. Where adverse physical effects on the environment could result from the future development of housing on the proposed housing sites, those potential impacts are addressed in the appropriate environmental sections of this EIR. Additionally, potential conflicts with planning documents pertaining to a specific environmental topics, such as Noise, are identified within those applicable sections of the EIR.

### Plan Bay Area 2050

The proposed project would be consistent with the growth projections included in the *Plan Bay Area 2050*. Throughout *Plan Bay Area 2050*, Growth Geographies are geographic areas used to guide where future growth in housing and jobs would be focused under the plan's strategies over the next 30 years. These geographies are identified for growth either by local jurisdictions or because of their proximity to transit or access to opportunity. ABAG and MTC have provided an interactive online GIS map of the nine-county Bay Area that allows users to zoom in to specific

localities.[1] There are High Resource Areas, Priority Development Areas, and Transit-Rich Areas *Plan Bay Area 2050* growth geographies located within the City of San Carlos. As the growth geographies are meant to encourage the development of housing in proximity to existing and future employment centers and/or public transit, housing developed within and in proximity to a growth area would contribute to meeting this objective.

The proposed housing sites would further new housing development in City in compliance with its RHNA, which would advance residential growth promoted in *Plan Bay Area 2050.* The project has been developed to show the City can accommodate 3,576 housing units, which is 841 housing units beyond its RHNA of 2,735 housing units. The project is consistent with the RHNA and *Plan Bay Area 2050.*

The proposed Focused GPU is intended to update the City's Housing and Environmental Safety and Community Services Elements according to state law, and to update other portions of the General Plan for internal consistency. The Municipal Code will be updated to reflect the new General Plan Land Use designations and housing and safety element polices. The 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 and therefore has a less than significant land use impact.

### 4.10.5 References

Association of Bay Area Governments and Metropolitan Transportation Commission, Plan Bay Area 2050 Growth Geographies, https://opendata.mtc.ca.gov/datasets/d74d81cfce2a4bc9851858f087b78f49/explore?location=38.002291,-121.766977,15.00.

Association of Bay Area Governments and the Metropolitan Transportation Commission, 2021. Plan Bay Area 2050, May 26.

City of San Carlos. 2021. Existing Conditions Atlas, San Carlos 2040, January 6.

[1] Association of Bay Area Governments and Metropolitan Transportation Commission, Plan Bay Area 2050 Growth Geographies, https://opendata.mtc.ca.gov/datasets/d74d81cfce2a4bc9851858f087b78f49/explore?location=38.002291,-121.766977,15.00.

# 4.11 NOISE

This EIR chapter provides background information on the nature of sound and vibration transmission; describes the existing noise environment in the project area; summarizes applicable noise guidelines, standards, and regulations; and evaluates potential noise and vibration impacts that could result from the implementation of the Focused GPU (the project). The proposed Environmental Safety and Public Services Element and all other project components not mentioned in this analysis will not have an appreciable effect on noise. Where necessary, this section includes mitigation measures that would reduce noise and vibration impacts associated with the project.

## 4.11.1 Fundamentals of Environmental Acoustics

Noise is generally defined as unwanted sound and is widely recognized as a form of environmental degradation. Airborne sound is the rapid fluctuation of air pressure above and below atmospheric pressure. The frequency (pitch), amplitude (intensity or loudness), and duration of a sound all contribute to the effect on a listener or receptor and whether the receptor perceives the sound as "noisy" or annoying.

Pitch is the height or depth of a tone or sound and depends on the frequency of the vibrations by which it is produced. Sound frequency is expressed in cycles per second, or Hertz (Hz). Humans generally hear sounds with frequencies between 20 and 20,000 Hz and perceive higher frequency sounds, or high pitch noise, as louder than low-frequency sounds or sounds low in pitch. Sound intensity or loudness is a function of the amplitude of the pressure wave generated by a noise source combined with the reception characteristics of the human ear. Atmospheric factors and obstructions between the noise source and receptor also affect the loudness perceived by the receptor. Sound pressure levels are typically expressed on a logarithmic scale in decibels (dB). A dB is a unit of measurement that indicates the relative amplitude (i.e., intensity or loudness) of a sound, with 0 dB corresponding roughly to the threshold of hearing for the healthy, unimpaired human ear.

Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 dB represents a ten-fold increase in acoustic energy, while 20 dB is 100 times more intense, 30 dB is 1,000 times more intense, and so on. In general, there is a relationship between a sound's subjective noisiness or loudness and its intensity, with each 10 dB increase in sound level perceived as approximately a doubling of loudness. Due to the logarithmic basis, decibels cannot be directly added or subtracted using common arithmetic operations. Instead, the combined sound level from two or more sources must be combined logarithmically. For example, if one noise source produces a sound power level of 50 dBA, two of the same sources would combine to produce 53 dB. In general, when one source is 10 dB higher than another source, the quieter source does not add to the sound levels produced by the louder source because the louder source contains ten times more sound energy than the quieter source.

## Sound Characterization

Although humans generally can hear frequencies between 20 and 20,000 Hz, most sounds humans are normally exposed to do not consist of a single frequency but rather a broad range of frequencies perceived differently by the human ear. Humans are generally most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. Therefore, instruments used to measure sound include an electrical filter that enables the instrument's detectors to replicate human hearing. This filter, known as the "A-weighting" or "A-weighted sound level," filters low and very high frequencies, giving greater weight to the frequencies of sound to which the human ear is typically most sensitive. Most environmental measurements are reported in dBA, meaning decibels on the A-scale. See Table 4.11-1 for a list of common noise sources and their A-weighted noise levels.

Sound levels are usually not steady and vary over time. Therefore, a method for describing either the average character of the sound or the statistical behavior of the variations over a period of time is necessary. The continuous equivalent noise level ($L_{eq}$) descriptor is used to represent the sound's average character over time. The $L_{eq}$ represents the steady-state noise level with the same acoustical energy as the time-varying noise measured over a given time period. $L_{eq}$ is useful for evaluating shorter time periods over the course of a day. The most common $L_{eq}$ averaging period is hourly. However, $L_{eq}$ can describe any series of noise events over a given time period.

Variable noise levels are the values exceeded for a portion of the measured time period. Thus, the $L_{01}$, $L_{10}$, $L_{50}$, and $L_{90}$ descriptors represent the sound levels exceeded 1%, 10%, 50%, and 90% of the time the measurement was performed. The $L_{90}$ value usually corresponds to the background sound level at the measurement location.

When considering environmental noise, it is important to account for people's different responses to daytime and nighttime noise. In general, during the nighttime, background noise levels are generally quieter than during the daytime but also more noticeable because household noise has decreased as people begin to retire and sleep. Noise exposure over the course of an entire day is described by the day/night average sound level, Ldn (or DNL), and the community noise equivalent level, or CNEL, descriptors. Both descriptors represent the 24-hour noise exposure in a community or area. For Ldn, the 24-hour day is divided into a 15-hour daytime period (7 AM to 10 PM) and a 9-hour nighttime period (10 PM to 7 AM), and a 10 dB "penalty" is added to measure nighttime noise levels when calculating the 24-hour average noise level. For example, a 45 dBA nighttime sound level would contribute as much to the overall day-night average as a 55 dBA daytime sound level. The CNEL descriptor is similar to Ldn, except that it includes an additional 5 dBA penalty for noise events that occur during the evening time period (7 PM to 10 PM). The artificial penalties imposed during Ldn and CNEL calculations are intended to account for a receptor's increased sensitivity to noise levels during quieter nighttime periods.

| Table 4.11-1: Typical Noise Levels | | |
|---|---|---|
| **Common Outdoor Activities** | **Noise Level (dBA)** | **Common Indoor Activities** |
| | 110 | Rock Band |
| Jet flyover at 1,000 feet | 105 | |
| | 100 | |
| Gas lawn mower at 3 feet | 95 | |
| | 90 | |
| Diesel truck at 50 feet at 50 mph | 85 | Food blender at 3 feet |
| | 80 | Garbage disposal at 3 feet |
| Noise urban area, daytime | 75 | |
| Gas lawnmower, 100 feet | 70 | Vacuum cleaner at 10 feet |
| Commercial area | 65 | Normal speech at 3 feet |
| Heavy traffic at 300 feet | 60 | |
| | 55 | Large business office |
| Quiet urban daytime | 50 | Dishwasher next room |
| | 45 | |
| Quiet urban nighttime | 40 | Theater, large conference room |
| Quiet suburban nighttime | 35 | |
| | 30 | Library |
| Quite rural nighttime | 25 | Bedroom at night |
| | 20 | |
| | 15 | Broadcast/recording studio |
| | 10 | |
| | 5 | |
| Typical threshold of human hearing | 0 | Typical threshold of human hearing |

Source: Caltrans, 2013

## Sound Propagation

The energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out and travels away from the noise-generating source. The strength of the source is often characterized by its "sound power level." Sound power level is independent of the distance a receiver is from the source and is a property of the source alone. Knowing the sound power level of an idealized source and its distance from a receiver, the sound pressure level at a specific point (e.g., a property line or a receiver) can be calculated based on geometrical spreading and attenuation (noise reduction) as a result of distance and environmental factors, such as ground cover (asphalt vs. grass or trees), atmospheric absorption, and shielding by terrain or barriers.

For an ideal "point" source of sound, such as mechanical equipment, the energy in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out in a spherical pattern and travels away from the point source. Theoretically, the sound level attenuates, or decreases, by 6 dB with each doubling of distance from the point source. In contrast, a "line" source of sound, such as roadway traffic or a rail line, spreads out in a cylindrical pattern and theoretically attenuates by 3 dB with each doubling of distance from the line source; however, the sound level at a receptor location can be modified further by additional factors. The first is the presence of a reflecting plane such as the ground. A reflecting plane typically increases A-weighted sound pressure levels by 3 dB for hard ground. If the surface absorbs some of the reflected sound, this increase will be less than 3 dB. Other factors affecting the predicted sound pressure level are

often lumped together into a term called "excess attenuation." Excess attenuation is the amount of additional attenuation that occurs beyond simple spherical or cylindrical spreading. For sound propagation outdoors, there is almost always excess attenuation, producing lower levels than what would be predicted by spherical or cylindrical spreading. Some examples include attenuation by sound absorption in air; attenuation by barriers; attenuation by rain, sleet, snow, or fog; attenuation by grass, shrubbery, and trees; and attenuation from shadow zones created by wind and temperature gradients. Under certain meteorological conditions, like fog and low-level clouds, some of these excess attenuation mechanisms are reduced or eliminated due to noise reflection.

### Noise Effects

Noise effects on human beings are generally categorized as:

- Subjective effects of annoyance, nuisance, and/or dissatisfaction
- Interference with activities such as speech, sleep, learning, or relaxing
- Physiological effects such as startling and hearing loss

Most environmental noise levels produce subjective or interference effects; physiological effects are usually limited to high noise environments such as industrial manufacturing facilities or airports.

Predicting the subjective and interference effects of noise is difficult due to the wide variation in individual thresholds of annoyance and past experiences with noise; however, an accepted method to determine a person's subjective reaction to a new noise source is to compare it with the existing environment without the noise source, or the "ambient" noise environment. In general, the more a new noise source exceeds the ambient noise level, the more likely it is to be considered annoying and to disturb normal activities.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5 dB increase is generally perceived as a distinctly noticeable increase, and a 10 dB increase is generally perceived as a doubling of loudness that would almost certainly cause an adverse response from community noise receptors.

### Groundborne Vibration and Noise

Vibration is the movement of particles within a medium or object such as the ground or a building. Vibration may be caused by natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or humans (e.g., explosions, machinery, traffic, trains, construction equipment).

Vibration sources are usually characterized as continuous, such as factory machinery, or transient, such as explosions.

As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency; however, unlike airborne sound, there is no standard way of measuring and reporting amplitude. Vibration amplitudes can be expressed in terms of velocity (inches per second) or discussed in dB units in order to compress the range of numbers required to describe vibration. Vibration impacts to buildings are usually discussed in terms of peak particle velocity (PPV) in inches per second (in/sec). PPV represents the maximum instantaneous positive or negative peak of a vibration signal and is most appropriate for evaluating the potential for building damage. Vibration can impact people, structures, and sensitive equipment. The primary concern related to vibration and people is the potential to annoy those working and residing in the area. Vibration with high enough amplitudes can damage structures (such as crack plaster or destroy windows). Ground-borne vibration can also disrupt the use of sensitive medical and scientific instruments, such as electron microscopes.

Common sources of vibration within communities include construction activities and railroads. Ground-borne vibration generated by construction projects is usually highest during pile driving, rock blasting, soil compacting, jack hammering, and demolition-related activities. Next to pile driving, grading activity has the greatest potential for vibration impacts if large bulldozers, large trucks, or other heavy equipment are used.

Groundborne noise is noise generated by vibrating building surfaces such as floors, walls, and ceilings that radiate noise inside buildings subjected to an external source of vibration. The vibration level, the acoustic radiation of the vibrating element, and the acoustical absorption of the room are all factors that affect potential ground-borne noise generation.

### 4.11.2 Environmental Setting

The City's existing General Plan Noise Element identifies the primary contributors to the City's noise environment as coming from motor vehicles and aircraft overflights. Other sources of community noise include rail activities and commercial and industrial land uses. This description is still accurate; the City's Existing Conditions Atlas prepared for the project identifies roadway traffic noise levels as an ongoing concern in the City.

The principal noise source within the project area is from vehicular traffic, including automobiles, trucks, buses, and motorcycles. The level of noise generated by vehicular traffic generally varies according to the volume of traffic, the percentage of trucks, and average traffic speed. One rail line operated by Caltrain runs through the City. The 2030 Projected Noise Contours from the existing General Plan indicate that the project has proposed residential developments within the railway's 65 Ldn contour.

The Federal Transit Administration’s (FTA) *Transit Noise and Vibration Impact Assessment* document provides recommended ground-borne vibration criteria for general environmental assessments. The vibration criteria vary according to the sensitivity of the land use and the

frequency of vibration events (i.e., number of trains passing by the sensitive land use), as shown in Table 4.11-5. For frequent events (i.e., more than 70 trains passing by in one day), the criteria generally vary between 65 VdB for buildings where vibration would interfere with interior operations (e.g., highly sensitive research facilities, hospitals), to 72 VdB for residences and buildings where people normally sleep, to 75 VdB for land uses with primarily daytime use. Highly sensitive research facilities and hospitals are not anticipated under the proposed project and, therefore, the 65 VdB threshold is not considered further in this analysis. The FTA's guidance document contains generalized ground surface vibration curves derived from vibration measurements of transit systems in North America (FTA 2018, Figure 6-4). Based on these vibration prediction curves, proposed residential development within approximately 200 feet of a passenger rail line as measured from the centerline of the track could be exposed to vibration levels that exceed the FTA's recommended threshold of 72 VdB for residences. Similarly, other proposed land uses within approximately 120 feet of a passenger rail line could be exposed to vibration levels that exceed the FTA's recommended threshold of 75 VdB for land uses with primarily daytime occupancy. Therefore, future planned developments along the railway could be exposed to excessive transit train vibration levels that exceed FTA-recommended vibration criteria (for human annoyance and response factors) of 72 or 75 VdB, respectively.

The San Carlos Airport is located in the eastern area of the City, east of Hwy 101, near the Holly Avenue interchange. San Carlos Airport is owned and operated by San Mateo County (Public Works, Airports Division) and accommodates almost 400 based aircraft and a variety of aviation-related businesses including flight schools. San Carlos Airport is designated as a reliever airport in the National Plan of Integrated Airport Systems (NPIAS). Reliever airports are located in major metropolitan areas and provide general aviation pilots and users with an alternative to congested commercial service airports like San Francisco International Airport. The project area is not located in any noise contour zone associated with this airport.

### Measured Ambient Noise Levels

The existing ambient noise levels in the project area were monitored in September 2022 (MD 2022; see Appendix E). The ambient noise monitoring conducted for this EIR included four (4) short-term (ST) and 2 long-term (LT) measurements at locations selected to:

- Provide direct observations of existing noise sources in and in the vicinity of the project area;
- Determine ambient noise levels in the vicinity of the Project area; and
- Evaluate potential noise levels at nearby sensitive receptors (see "Noise Sensitive Receptors" below).

The ambient noise monitoring locations are shown in Figure 4.11-1 and described below.

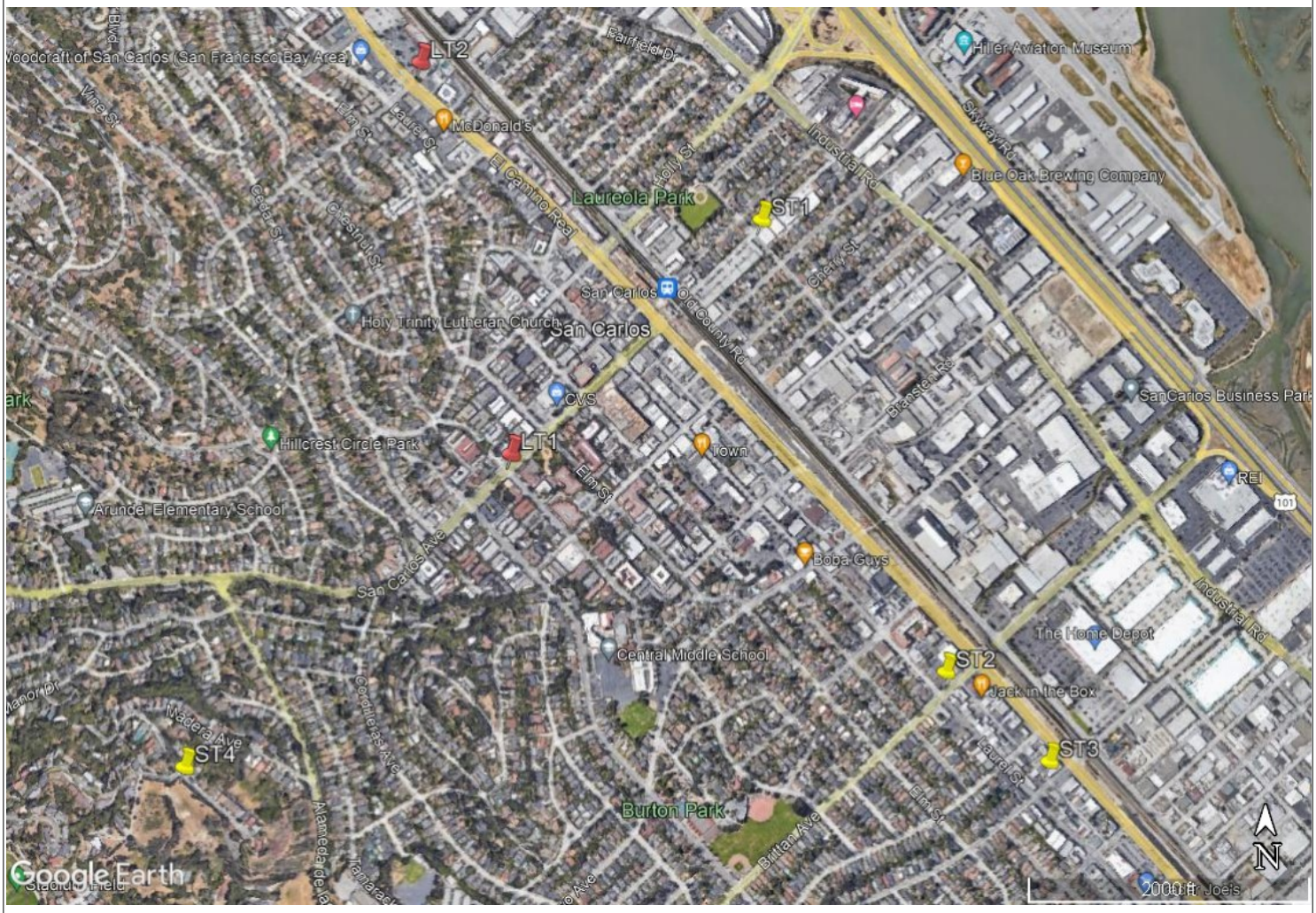
- **Location LT-1** was at the western corner of the intersection of Chestnut Street and San Carlos Avenue. This location was approximately 56 feet from the centerline of San Carlos Avenue and 35 feet from the centerline of Chestnut Street. The ambient noise levels measured at location LT-1 are considered representative of background noise levels along the mixed-use portions of San Carlos Avenue.

- **Location LT-2** was at the intersection of El Camino Real and Hull Drive. This location was approximately 80 feet from the centerline of El Camino Real. The ambient noise levels measured at LT-2 are considered representative of background noise in mixed-use portions of El Camino Real.

- **Location ST-1** was located at the eastern corner of San Carlos Ave and Bayport Avenue. The ambient noise levels measured at ST-1 are considered representative of background daytime noise levels in the residential area northeast of San Carlos Avenue.

- **Location ST-2** was located on the northern corner of Laurel Street and Brittan Avenue. This location was approximately 25 feet from the centerline of Main Street. The ambient noise levels measured at ST-2 are considered representative of background daytime noise levels along Laurel Street.

- **Location ST-3** was along Howard Avenue in an alleyway between El Camino Real and Laurel Street. The ambient noise levels measured at ST-3 are considered representative of background daytime noise of commercial properties in the mixed-use South Boulevard area.




Source: MD Acoustics, 2022

**Figure 4.11-1** Ambient Noise Monitoring Locations

*Focused General Plan Update*

- **Location ST-4** was near the intersection of Coronado Avenue and Vista Del Grande. This location was approximately 50 feet from the centerline of roadways. The ambient noise levels measured at ST-4 are considered representative of background daytime noise levels in multifamily residential areas of the City.

Based on observations made during the ambient noise monitoring, the existing noise environment in the project area consists primarily of localized and regional transportation noise sources. Away from major arterial and collector roads, local residential/commercial land use operations are the primary contributors to the local ambient noise environment. Table 4.11-2 summarizes the results of the long-term ambient noise monitoring and Table 4.11-3 summarizes the results of the short-term ambient noise monitoring conducted for this EIR.

**Table 4.11-2: Existing Ambient Noise Levels (dBA) in the Project Area**

| Day / Site | Start Time | Duration | Measured Noise Level (dBA) | | | |
|---|---|---|---|---|---|---|
| | | | Daytime $L_{eq}$ | Evening $L_{eq}$ | Nighttime $L_{eq}$ | Ldn |
| Thursday-Friday, July 21-22, 2022 | | | | | | |
| LT-1 | 8 AM-8 AM | 24-hours | 63.4 | 61.7 | 56.4 | 64.7 |
| LT-2 | 9 AM-9 AM | 24-hours | 70.1 | 67.7 | 62.8 | 71.1 |

Source: MD Acoustics, LLC (see Appendix E)

**Table 4.11-3: Existing Ambient Noise Levels (dBA) in the Project Area**

| Day / Site | Start Time | Duration | Measured Noise Level (dBA) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | $L_{eq}$ | $L_{min}$ | $L_{max}$ | $L_2$ | $L_8$ | $L_{25}$ | $L_{50}$ | $L_{90}$ |
| Friday, July 22, 2022 | | | | | | | | | | |
| ST-1 | 10:13 AM | 10-minutes | 57.9 | 43.8 | 76.0 | 66.1 | 59.9 | 55.0 | 50.1 | 45.8 |
| ST-2 | 10:56 AM | 10-minutes | 63.2 | 50.8 | 76.9 | 69.8 | 67.8 | 62.7 | 59.6 | 55.6 |
| ST-3 | 11:24 AM | 10-minutes | 63.4 | 51.4 | 75.3 | 72.9 | 67.0 | 61.7 | 59.7 | 54.7 |
| ST-4 | 12:03 PM | 10-minutes | 50.0 | 38.2 | 67.7 | 59.1 | 55.1 | 47.4 | 42.0 | 39.1 |

Source: MD Acoustics, LLC (see Appendix E)

As shown in Table 4.11-2 and Table 4.11-3, daytime noise levels were lower in the primarily residential areas (ST-1 and ST-4) and higher near the mixed-use and commercial areas (LT-1, LT-2, ST-2 and ST-3). Measured noise levels were the highest close to the major arterials El Camino Real.

### Existing 2019 and Future 2040 Traffic Noise Levels

Existing 2019 traffic noise levels were computed using the U.S. Department of Transportation Federal Highway Administration's (FHWA) Traffic Noise Model (TNM) methodology. The model uses traffic volume, vehicle mix, vehicle speed, roadway geometry, and other variables to compute 24-hour traffic noise levels at user-defined receptor distances from the roadway center. The TNM modeling conducted for this EIR incorporates worst-case assumptions about motor vehicle traffic and noise levels; specifically, calculations are based on "hard" site conditions and do not

incorporate any natural or artificial shielding, with the exception of US 101, which includes a noise barrier.

Information on existing 2019 average daily traffic volumes was obtained from the traffic impact analysis (TIA) prepared for the project (W-Trans, 2022). Traffic noise levels were estimated for typical daytime (7:00 AM to 7:00 PM), evening (7:00 PM to 10:00 PM), and nighttime (10:00 PM to 7:00 AM) hours using typical hourly distributions within California cities. The mix of automobiles, medium trucks, and heavy duty trucks were given by 2020 Caltrans Truck volumes. Roadway segments were modeled as straight-line segments without any flow controls. Modeled noise levels, therefore, represent free-flow traffic conditions. Vehicles were assumed to travel the posted speed limit on each modeled roadway segment.

The TIA prepared for the project also includes an analysis of cumulative 2040 traffic conditions that would occur based on continued implementation of the City's current General Plan at the land use development intensities permitted by the project. The future 2040 baseline cumulative traffic noise levels were estimated using the same methodology as described for the existing traffic noise analysis. Traffic noise levels were computed using TNM methodology and the same roadway geometry factors assumed for existing traffic noise levels.

Modeled traffic noise levels for existing 2019 and cumulative 2040 traffic noise levels are shown in Table 4.11-4. Existing traffic noise contours are shown in Figure 4.11-2 (Existing Traffic Noise Contours). Please refer to Appendix E for detailed information on existing traffic noise modeling assumptions.

**Table 4.11-4: Existing (2019) and Future (2040) Traffic Noise Levels**

| Road / Segment | Existing (2019) | | Future (2040) | | Net Change | |
|---|---|---|---|---|---|---|
| | ADT | Ldn[(A)] | ADT | Ldn [(A)] | ADT | Ldn |
| **Holly St** | | | | | | |
| US-101 to Industrial Rd | 53,473 | 71.3 | 49,906 | 71.0 | -3,567 | -0.3 |
| Industrial Rd to Old County Rd | 27,343 | 66.3 | 27,236 | 66.3 | -107 | 0 |
| Old County Rd to El Camino Real | 23,859 | 65.7 | 27,831 | 66.4 | 3,972 | 0.7 |
| **El Camino Real** | | | | | | |
| Harbor Blvd to Hull Dr | 18,541 | 68.3 | 30,094 | 70.4 | 11,553 | 2.1 |
| Hull Dr to Holly St | 19,010 | 66.8 | 30,533 | 68.9 | 11,523 | 2.1 |
| Holly St to San Carlos Ave | 29,487 | 68.7 | 35,788 | 69.6 | 6,301 | 0.9 |
| San Carlos Ave to Cherry St | 7,433 | 60.9 | 13,932 | 63.7 | 6,499 | 2.8 |
| Cherry St to Arroyo Ave | 7,373 | 60.9 | 13,455 | 63.5 | 6,082 | 2.6 |
| Arroyo Ave to Brittan Ave | 16,440 | 64.4 | 23,889 | 66.0 | 7,449 | 1.6 |
| Brittan Ave to Howard Ave | 20,487 | 65.3 | 30,278 | 67.0 | 9,791 | 1.7 |
| Howard Ave to White Oak Way | 17,574 | 64.7 | 27,247 | 66.6 | 9,673 | 1.9 |
| White Oak Way to St Francis Way | 17,341 | 64.6 | 26,772 | 66.5 | 9,431 | 1.9 |
| St Francis Way to Whipple Ave | 19,942 | 65.2 | 29,095 | 66.9 | 9,153 | 1.7 |
| **Laurel St** | | | | | | |
| San Carlos Ave to Cherry St | 14,378 | 61.4 | 15,267 | 61.6 | 889 | 0.2 |
| Cherry St to Arroyo Ave | 10,431 | 60.0 | 11,887 | 60.5 | 1,456 | 0.5 |
| **San Carlos Ave** | | | | | | |
| El Camino Real to Laurel St | 22,156 | 67.4 | 22,429 | 67.4 | 273 | 0 |
| Laurel St to Walnut St | 17,878 | 66.5 | 19,810 | 66.9 | 1,932 | 0.4 |

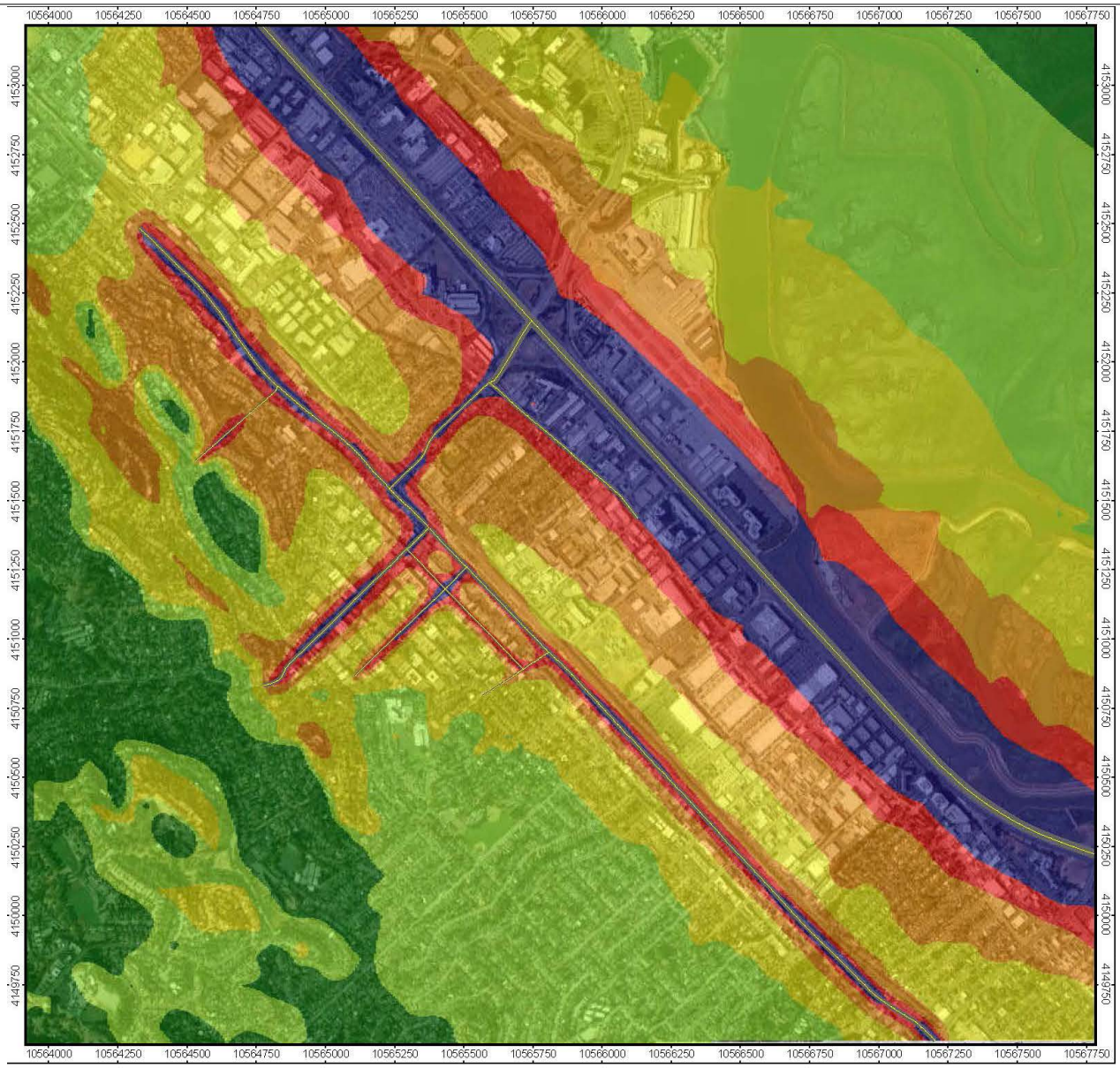
| Table 4.11-4: Existing (2019) and Future (2040) Traffic Noise Levels | | | | | | |
|---|---|---|---|---|---|---|
| | **Existing (2019)** | | **Future (2040)** | | **Net Change** | |
| **Road / Segment** | **ADT** | **Ldn[(A)]** | **ADT** | **Ldn [(A)]** | **ADT** | **Ldn** |
| Walnut St to Elm St | 18,659 | 66.6 | 20,456 | 67.0 | 1,797 | 0.4 |
| Elm St to Cedar St | 18,667 | 68.2 | 20,487 | 68.6 | 1,820 | 0.4 |
| Cedar St to Cordilleras Ave | 15,831 | 64.2 | 17,661 | 64.6 | 1,830 | 0.4 |
| **Industrial Rd** | | | | | | |
| Holly St to San Carlos Ave | 16,069 | 64.2 | 22,086 | 65.6 | 6,017 | 1.4 |
| San Carlos Ave to Cherry St | 3,368 | 57.4 | 10,441 | 62.4 | 7,073 | 5 |
| Cherry St to Terminal Way | 3,895 | 58.1 | 11,001 | 62.6 | 7,106 | 4.5 |
| Terminal Way to Bransten Rd | 3,795 | 58.0 | 11,001 | 62.6 | 7,206 | 4.6 |
| **US-101** | | | | | | |
| Harbor Blvd to Brittan Ave | 220,220 | 82.6 | 257,675 | 83.3 | 37,455 | 0.7 |
| Hull Dr | | | | | | |
| El Camino Real to Cedar St | 6,059 | 57.6 | 6,260 | 57.7 | 201 | 0.1 |
| **Cherry St** | | | | | | |
| El Camino Real to Cedar St | 12,782 | 60.8 | 13,196 | 61.0 | 414 | 0.2 |
| **Arroyo Ave** | | | | | | |
| El Camino Real to Laurel St | 9,067 | 59.3 | 10,435 | 60.0 | 1,368 | 0.7 |
| Laurel St to Elm St | 1,361 | 51.1 | 1,437 | 51.3 | 76 | 0.2 |

Source: MD, 2022 (see Appendix E)
Ldn values are as estimated 50 feet from the road center except for US-101 (Ldn at 100 feet)

The results of the traffic noise modeling indicate that existing traffic noise levels within the project area are highest along US 101, Holly St, El Camino Real, and San Carlos Avenue. Specifically, the modeling shows:

- Existing traffic noise levels along Holly St are estimated to be approximately 66 to 71 Ldn at a distance of 50 feet from the center of the roadway. From US-101 to Industrial Road, the use is industrial. From Industrial Road to El Camino Real the uses are primarily residential and commercial. The estimated existing traffic noise levels are within the City's conditionally acceptable noise exposure level for residential uses (75 Ldn) and are within the City's conditionally acceptable noise exposure level for commercial land uses (80 Ldn). 2040 traffic noise levels are estimated to increase by less than 1 dB and all segments will remain within the same compatibility ranges.

- Existing traffic noise levels along El Camino Real are estimated to be approximately 61-69 Ldn at a distance of 50 feet from the center of the roadway. Land uses along El Camino Real include mixed-use and multi-family residential. These mixed uses include residential, personal care, office buildings, and hotels. The levels are within the normally acceptable limits for office buildings, business, commercial and professional (70 Ldn) and conditionally acceptable limits for personal care (75 Ldn). Hotels and multi-family residential between San Carlos Avenue and Brittan Avenue and Howard Avenue to Saint Francis Way are within the normally acceptable range (65 dBA). Hotels and multi-family residential uses on all other sections of El Camino Real are within the conditionally acceptable range (75 Ldn). Office buildings, business, commercial and professional along Harbor Boulevard to Hull Drive are predicted to be in the conditionally acceptable range by 2040. Hotels and multi-family residential uses from Arroyo Avenue to Brittan Avenue




**Levels in dB(A)**

| | |
|---|---|
| | < 45 |
| 45 - | 50 |
| 50 - | 55 |
| 55 - | 60 |
| 60 - | 65 |
| >= | 65 |

**Length scale 1:1150**

0 500 1000 2000 3000 feet

**Signs and symbols**

Road

*Source: MD Acoustics 2022*

**Figure 4.11-2** 2019 Roadway Noise Contours

*Focused General Plan Update*

and Howard Avenue to Saint Francis Way will be in the conditionally acceptable range by 2040. The overall levels will increase by less than 3 dB by 2040 for all segments.

- Existing traffic noise levels along San Carlos Avenue are estimated to be approximately 64 to 68 Ldn at a distance of 50 feet from the center of the roadway. Land uses include multi-family residential, a park, commercial, and personal care. The estimated existing traffic noise levels are within the City's conditionally acceptable noise exposure level for personal care (75 Ldn) and are within the City's normally acceptable noise exposure level for commercial land uses (70 Ldn). Multi-family uses from Cedar Street to Cordilleras Avenue are within the normally acceptable range (65 Ldn). All other segments are within the conditionally acceptable limit for multi-family residential uses (75 Ldn). The park is within the conditionally acceptable range (80 Ldn). 2040 traffic noise levels are estimated to increase by less than 1 dB and all segments will remain within the same compatibility ranges.

- Existing traffic noise levels along Industrial Road are estimated to be approximately 57 to 64 Ldn at a distance of 50 feet from the center of the roadway. These segments are likely just as or more impacted by US-101 noise as Industrial Road noise. Land uses are primarily single-family residential and industrial with some commercial by Holly Street. The levels are within the normally acceptable range for commercial uses (70 Ldn). From Holly Street to San Carlos Avenue, the levels are within the conditionally acceptable range for single-family residential (75 Ldn). However, most houses along that segment are shielded by CMU walls, which would bring the level at the residences down to a normally acceptable range (60 Ldn) at those residences. All other segments are in the normally acceptable range for single-family residential. However, these segments are likely in the 60-65 Ldn range due to the noise from US-101. Houses with CMU walls are estimated to be in the normally acceptable range and houses without CMU walls are estimated to be in the conditionally acceptable range throughout the single-family residential portion of Industrial Road. By 2040, all segments will be in the conditionally acceptable range due to traffic from Industrial Road. The combined impact from Industrial Road and US-101 will remain in the conditionally acceptable range by 2040. In 2040, houses with CMU walls will continue to be in the normally acceptable range.

- Existing traffic noise levels along US 101 are above 80 Ldn at a distance of 100 feet from the center of the roadway. Overall levels are anticipated to increase by less than 1 dB by 2040. The estimated existing traffic noise levels exceed the City's conditionally acceptable noise exposure level for commercial land uses (80 Ldn) and hotels (75 Ldn) contained in the City's General Plan. These areas are Industrial and General Industrial/Commercial per the General Plan. Industrial areas do not have land use compatibility standards.

- Existing traffic noise levels along Cherry Street. are 61 Ldn at a distance of 50 feet from the center of the roadway. Land uses include multi-family residential, commercial, and a library. The levels are within the normally acceptable range from multi-family residential (65 Ldn) and commercial (70 Ldn) uses. The levels are within the conditionally acceptable range for libraries (75 Ldn). 2040 traffic noise levels are estimated to increase by less than 1 dB and all segments will remain within the same compatibility ranges.

- All other segments are within normally acceptable limits for the adjacent land uses and will increase by less than 1 dB by 2040.

### Other Non-Transportation Noise Sources

Non-transportation sources also contribute to the project area's existing noise environment. Commercial and industrial land uses located throughout the project area (but primarily along key roadways like US 101, El Camino Real, and San Carlos Avenue), schools and outdoor park and recreation facilities, and residential land uses generate noise from daily operations of landscaping equipment, stationary sources such as heating, ventilation, and air conditioning (HVAC) equipment, business deliveries, solid waste pickup services, etc. Such sources are considered local source of noise that only influence the immediate surroundings.

### Noise Sensitive Receptors

Noise-sensitive receptors are buildings or areas where unwanted sound or increases in sound may have an adverse effect on people or land uses. Residential areas, motels and hotels, hospitals and health care facilities, school facilities, and parks are examples of noise receptors that could be sensitive to changes in existing environmental noise levels. In general, potential noise-sensitive receptors within the project area include:

- Existing low density, medium density, high density, and mixed-use residential receptors within the project area.

- Existing neighborhood, community, and other parks.

In addition to existing sensitive noise receptors, the proposed project would increase development density in the project area and would provide for new residential and mixed use residential and commercial opportunities.

## 4.11.3 Regulatory Framework

### Federal

<u>Federal Transit Administration (FTA)</u>

No federal regulations apply to noise or vibration from the proposed project, but the FTA's 2018 *Transit Noise and Vibration Impact Assessment Manual* document sets ground-borne vibration

annoyance criteria for general assessments. The criteria vary by the type of building being subjected to the vibrations, and the overall number of vibration events occurring each day. Category 1 buildings are considered buildings where vibration would interfere with operation, even at levels that are below human detection. These include buildings with sensitive equipment, such as research facilities and recording studios. Category 2 buildings include residential lands and buildings were people sleep, such as hotels and hospitals. Category 3 buildings consist of institutional land uses with primarily daytime uses. The FTA standards vary for "frequent" events (occurring more than 70 times per day, such as a rapid transit project), "occasional" events (occurring between 30 to 70 times per day), and "infrequent" events (occurring less than 30 times per day). The FTA's vibration annoyance criteria are summarized in Table 4.11-5.

**Table 4.11-5: FTA Ground-Borne Vibration Impact Criteria for General Assessment**

| Land Use Category/Type | Impact Level (Velocity Decibels) | | |
|---|---|---|---|
| | Frequent Events | Occasional Events | Infrequent Events |
| Category 1 – Buildings with sensitive equipment | 65 VdB | 65 VdB | 65 VdB |
| Category 2 – Buildings where people sleep | 72 VdB | 75 VdB | 80 VdB |
| Category 3 – Institutional buildings | 75 VdB | 78 VdB | 83 VdB |

Source: FTA 2018

## State

California Building Standards Code

The California Building Standards Code is contained in Title 24 of the California Code of Regulations and consists of 11 different parts that sets forth various construction and building requirements. Part 2, California Building Code, Section 1206, Sound Transmission, establishes sound transmission standards for interior walls, partitions, and floor/ceiling assemblies. Specifically, Section 1206.4 establishes that interior noise levels attributable to exterior noise sources shall not exceed 45 dBA Ldn or CNEL (as set by the local General Plan) in any habitable room.

California Green Building Standards Code

The California Green Building Standards Code is Part 11 to the California Building Standards Code. Chapter 5, Nonresidential Mandatory Standards, Section 5.507 establishes the following requirements for non-residential development that may be applicable to the project.

- Section 5.507.4.1.1 sets forth that buildings exposed to a noise level of 65 dBA $L_{eq}$ (1-hour) during any hour of operation shall have exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composting sound transmission class (STC) rating of at least 45 (or an outdoor indoor transmission class [OITC] of 35), with exterior windows of a minimum STC of 40.

- Section 5.507.4.2 sets forth that wall and roof assemblies for buildings exposed to a 65 dBA $L_{eq}$ pursuant to Section 5.507.4.1.1 shall be constructed to provide an interior noise

environment attributable to exterior sources that does not exceed 50 dBA $L_{eq}$ in occupied areas during any hour of operation. This requirement shall be documented by an acoustical analysis documenting interior sound levels prepared by personnel approved by the architect or engineer of record.

Caltrans

The California Department of Transportation's (Caltrans) Transportation and Construction Vibration Guidance Manual provides a summary of vibration criteria that have been reported by researchers, organizations, and governmental agencies (Caltrans 2013b). Chapters Nos. 6 and 7 of the aforementioned guidance manual summarizes vibration detection and annoyance criteria from various agencies and provides Caltrans' recommended guidelines and thresholds for evaluating potential vibration impacts on buildings and humans from transportation and construction projects. These thresholds are summarized in Table 4.11-6 and Table 4.11-7.

**Table 4.11-6: Caltrans' Vibration Threshold Criteria for Building Damage**

| Structural Integrity | Maximum PPV (in/sec) | |
|---|---|---|
| | Transient | Continuous |
| Historic and some older buildings | 0.50 | 0.12 to 0.2 |
| Older residential structures | 0.50 | 0.30 |
| New residential structures | 1.00 | 0.50 |
| Modern industrial and commercial structures | 2.00 | 0.50 |

Source: Caltrans 2020

**Table 4.11-7: Caltrans' Vibration Threshold Criteria for Human Response**

| Human Response | Maximum PPV (in/sec) | |
|---|---|---|
| | Transient | Continuous |
| Slightly perceptible | 0.035 | 0.012 |
| Distinctly perceptible | 0.24 | 0.035 |
| Strongly perceptible | 0.90 | 0.10 |
| Severe/Disturbing | 2.0 | 0.7 (at 2 Hz) to 0.17 (at 20 Hz) |
| Very disturbing | -- | 3.6 (at 2 Hz) to 0.4 (at 20 Hz) |

Source: Caltrans 2020

California General Plan Guidelines

OPR publishes the State of California General Plan Guidelines, which provide guidance for the acceptability of projects within specific community noise levels. The guidelines also present adjustment factors that may be used to arrive at noise-acceptability standards that reflect the particular community's noise-control goals, sensitivity to noise, and assessment of the relative importance of noise issues. OPR's base guidelines for establishing land use patterns that minimizes exposure of community residents to excessive noise are presented in Table 4.11-8 (OPR, 2017).

| Table 4.11-8: OPR General Plan Guidelines for Community Noise Exposure | | | | |
|---|---|---|---|---|
| | Community Noise Exposure Limit (CNEL or Ldn, dBA) | | | |
| Land Use Category | Normally Acceptable | Conditionally Acceptable | Normally Unacceptable | Clearly Unacceptable |
| Residential - Low-Density Single-Family, Duplex, Mobile Homes | 60 | 70 | 75 | 75+ |
| Residential - Multi-Family | 65 | 70 | 75 | 75+ |
| Transient Lodging - Motels, Hotels | 65 | 70 | 80 | 80+ |
| Schools, Libraries, Churches, Hospitals, Nursing Homes | 70 | 70 | 80 | 80+ |
| Auditoriums, Concert Halls, Amphitheaters | N/A | 70 | N/A | 70+ |
| Sports Arenas, Outdoor Spectator Sports | N/A | N/A | 75 | 75+ |
| Playgrounds, Neighborhood Parks | 70 | 70 | 75 | 75+ |
| Golf Courses, Riding Stables, Water Recreation, Cemeteries | 75 | N/A | 80 | 80+ |
| Office Buildings, Business Commercial and Professional | 70 | 77.5 | 77.5+ | N/A |
| Industrial, Manufacturing, Utilities, Agriculture | 75 | 80 | 80+ | N/A |

Source: OPR, 2017, Appendix D, Figure 2

## Local

San Carlos General Plan

The City's existing 2030 Noise Element includes the following goals and policies relevant to the project under the existing General Plan.

*Goal NOI-1:* Encourage compatible noise environments for new development and control sources of excessive noise citywide.

*Policy NOI-1.1:* Use the Noise and Land Compatibility Standards shown in Figure 9-1, the noise level performance standards in Table 9-1 and the projected future noise contours for the General Plan shown in Figure 9-3 and detailed in Table 9-2, as a guide for future planning and development decisions.

*Policy 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.

*Policy NOI-1.3:* Limit noise impacts on noise-sensitive uses to noise level standards as indicated in Table 9-1.

*Policy 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 Ldn or greater. If

recommended in the report, mitigation measures shall be required as conditions of project approval.

*Policy NOI-1.5:* New development of noise-sensitive land uses proposed in noise-impacted areas shall incorporate effective mitigation measures into the 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 Ldn (day/night average noise level) for exterior noise in private use areas.

- B. For new multi-family residential development maintain a standard of 65 Ldn 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 Ldn in all new residential units (single- and multi-family). Development sites exposed to noise levels exceeding 60 Ldn 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 in-side 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.

*Policy 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.

*Policy NOI-1.7:* The City shall seek to reduce impacts from ground-borne vibration associated with rail operations by requiring that vibration-sensitive buildings (e.g. residences) are sited at least 100 feet from the centerline of the railroad tracks whenever feasible. The development of vibration-sensitive buildings within 100 feet from the centerline of the rail-road tracks would require a study demonstrating that ground borne vibration issues associated with rail operations have been adequately addressed (i.e. through building siting, foundation design and construction techniques).

*Policy 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.

- Construction activities shall comply with the City's noise ordinance.

*Policy 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.

*Policy NOI-1.10:* Ensure that mixed-use development projects are designed to minimize noise impacts on residential units.

*Policy 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.

*Policy NOI-1.12:* Ensure consistency with the noise compatibility policies and criteria contained in the San Carlos Airport Land Use Plan.

*Policy NOI-1.13:* Require a noise analysis for new residential uses located within the 55 CNEL impact area of the San Carlos Airport. If recommended in the report, mitigation measures shall be required as conditions of project approval.

*Policy NOI-1.14:* The Federal Transit Administration vibration impact criteria and assessment methods shall be used to evaluate the compatibility of train vibration with proposed land uses adjoining the UPRR (Caltrain) corridor. Site specific vibration studies shall be completed for vibration-sensitive uses proposed within 100 feet of active railroad tracks.

*Action NOI-1.4* is important to note, as it states that projects would be significant if the Ldn at noise-sensitive uses increase by 3 dB or more and exceed the "normally acceptable" level, by 5 dB or more and remain "normally acceptable", and cause noise levels to exceed Table 4.11-10.

Additionally, the City's existing General Plan Noise Element establishes land use compatibility standards shown in Table 4.11-9.

**Table 4.11-9: Noise/Land Use Compatibility Guidelines**

| Land Use Category | Community Noise Exposure Level (Ldn) Compatibility Limit (dBA) | | |
|---|---|---|---|
| | **Normally Acceptable** | **Conditionally Acceptable** | **Unacceptable** |
| Single-Family Residential | <60 | 60-75 | 75< |
| Multi-Family Residential, Hotels and Motels | <65 | 65-75 | 75< |
| Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds | <65 | 65-80 | 80< |
| Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches | <60 | 60-75 | 75< |
| Office Buildings, Business, Commercial and Professional | <70 | 70-80 | 80< |

| Table 4.11-9: Noise/Land Use Compatibility Guidelines | | | |
|---|---|---|---|
| | Community Noise Exposure Level (Ldn) Compatibility Limit (dBA) | | |
| **Land Use Category** | **Normally Acceptable** | **Conditionally Acceptable** | **Unacceptable** |
| Auditoriums, Concert Halls, Amphitheaters | N/A | <70 | 70< |

Source: San Carlos General Plan, 2010, Figure 9-1

City of San Carlos Municipal Code

Section 9.30.030 of the Municipal Code states that except as otherwise permitted under this chapter, no person shall cause and no property owner shall permit, as to property owned by him, a noise produced by any person, amplified sound or device, or any combination thereof in excess of the noise limits established in Table 18.21.050-A (Table 4.13-10 of this report) to emanate from any property, public or private, as measured at the receiving property line.

Section 18.21.050 of the Municipal Code states:

A. Noise Limits. No use or activity shall create noise levels that exceed the following standards. The maximum allowable noise levels specified in Table 18.21.050-A, Noise Limits, do not apply to noise generated by automobile traffic or other mobile noise sources in the public right-of-way.

    1. Adjustments to Noise Limits. The maximum allowable noise levels of Table 18.21.050-A, Noise Limits, shall be adjusted according to the following provisions. No more than one increase in the maximum permissible noise level shall be applied to the noise generated on each property.

        a. Ambient Noise. If the ambient noise level at a noise-sensitive use is ten dBA or more below the standard, the allowable noise standard shall be decreased by five decibels.

        b. Duration. The maximum allowable noise level (L50) 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 may exceed the noise limit by five decibels; and

            ii. Noise that is produced for no more than a cumulative period of five minutes in any hour may exceed the noise limits by ten decibels;

            iii. Noise that is produced for no more than a cumulative period of one minute in any hour may exceed the noise limits by fifteen decibels.

        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 five decibels.

d. Prohibited Noise. Noise for a cumulative period of thirty minutes or more in any hour which exceeds the noise standard for the receiving land use.

Part B of this section outlines the land use compatibility guidelines in Table 4.11-9.

**Table 4.11-10: San Carlos Municipal Code Table 18.21.050-A: Noise Limits**

| Land Use Receiving the Noise | Noise-Level Descriptor | Exterior Noise Level Standard in Any Hour (dBA) | | Interior Noise-Level Standard in Any Hour (dBA) | |
|---|---|---|---|---|---|
| | | Daytime (7 a.m. – 10 p.m.) | Nighttime (10 p.m. – 7 a.m.) | Daytime (7 a.m. – 10 p.m.) | Nighttime (10 p.m. – 7 a.m.) |
| Residential | $L_{50}$ | 55 | 45 | 40 | 30 |
| | $L_{max}$ | 70 | 60 | 55 | 45 |
| Medical, convalescent | $L_{50}$ | 55 | 45 | 45 | 35 |
| | $L_{max}$ | 70 | 60 | 55 | 45 |
| Theater, auditorium | $L_{50}$ | - | - | 35 | 35 |
| | $L_{max}$ | - | - | 50 | 50 |
| Church, meeting hall | $L_{50}$ | 55 | - | 40 | 40 |
| | $L_{max}$ | - | - | 55 | 55 |
| School, library, museum | $L_{50}$ | 55 | - | 40 | - |
| | $L_{max}$ | - | - | 55 | - |

Source: San Carlos Municipal Code, 2011.

C. Acoustic Study. The Director may require an acoustic study for any proposed project that could cause any of the following:

1. Locate new residential uses within the fifty-five CNEL impact area of the San Carlos Airport;

2. Cause noise levels to exceed the limits in Table 18.21.050-A;

3. Create a noise exposure that would require an acoustic study and noise attenuation measures listed in Table 18.21.050-B, Noise Exposure—Land Use Requirements and Limitations; or

4. Cause the Ldn at noise-sensitive uses to increase three dBA or more.

D. Establishing Ambient Noise. When the Director has determined that there could be cause to make adjustments to the standards, an acoustical study shall be performed to establish ambient noise levels. In order to determine if adjustments to the standards should be made either upwards or downwards, a minimum twenty-four-hour-duration noise measurement shall be conducted. The noise measurements shall collect data utilizing noise metrics that are consistent with the noise limits presented in Table 18.21.050-A, e.g., Lmax (zero minutes), L02 (one minute), L08 (five minutes), L25 (fifteen minutes) and L50 (thirty minutes). An arithmetic average of these ambient noise levels during the three quietest hours shall be made to demonstrate that the ambient noise levels are regularly ten or more decibels below the respective noise standards. Similarly, an arithmetic average of ambient noise levels during the three loudest hours should be made to demonstrate that ambient noise levels regularly exceed the noise standards.

E. Noise Attenuation Measures. Any project subject to the acoustic study requirements of subsection C of this section may be required as a condition of approval to incorporate noise attenuation measures deemed necessary to ensure that noise standards are not exceeded.

1. New noise-sensitive uses (e.g., schools, hospitals, churches, and residences) shall incorporate noise attenuation measures to achieve and maintain an interior noise level of forty-five dBA.

2. Noise attenuation measures identified in an acoustic study shall be incorporated into the project to reduce noise impacts to satisfactory levels.

3. Emphasis shall be placed upon site planning and project design measures. The use of noise barriers shall be considered and may be required only after all feasible design-related noise measures have been incorporated into the project. (Ord. 1438 § 4 (Exh. A (part)), 2011)

Section 18.21.060 states that 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.

### 4.11.4 Significance Thresholds

Per the CEQA Guidelines, project implementation would have a significant impact related to noise or vibration if it would result in:

a) Generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards established in the local General Plan or Noise Ordinance, or applicable standards of other agencies;

b) Generation of excessive ground-borne vibration or ground-borne noise levels; or

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

With regard to criteria (a), the proposed project would result in a significant construction and/or operational noise impact if it would:

- Conflict with or violate any applicable provision of Municipal Code Chapter 24

- Conflict with or violate any applicable standard or policy in the City's General Plan Noise Element

- Generate operational traffic noise levels that increase ambient noise levels at off-site locations by:

- 5 dBA or more where the ambient noise level would change from normally acceptable to conditionally acceptable;
- 3 dBA or more where the existing ambient noise would change from conditionally acceptable to normally unacceptable; or
- 1 dBA or more where the existing ambient noise level is already normally unacceptable or would change from normally unacceptable to clearly unacceptable.

With regard to criterion (b), the proposed project would result in a significant construction and/or operational vibration impact if it would:

- Generate construction-related vibration levels that exceed Caltrans' guidance for potential building damage (see Table 4.11-6); or
- Generate construction-related vibration levels that exceed FTA or Caltrans' criteria for human annoyance (see Table 4.11-7).

With regard to criterion (c), the proposed project would expose people living or working in the Plan Area to excessive airport-related noise levels if it would conflict with an applicable airport land use compatibility plan or otherwise expose people to excessive airport-related noise levels from a private air facility.

### 4.11.5 Impacts and Mitigation Measures

Noise-related impacts from future development pursuant to general plans can be divided into short-term construction-related impacts and long-term noise exposure impacts. Construction-related impacts are associated with construction activities likely to occur in conjunction with future housing development. Long-term noise exposure is associated with major noise sources (e.g., traffic, trains, other transit, aircraft, and stationary sources) and changes in noise levels that may occur in the City as a result of implementation of the project.

***Impact NOISE-1 – The project would not result in generation of a substantial <u>temporary</u> increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (Less Than Significant Impact)***

Implementation of the project would involve housing construction that would result in temporary noise generation, primarily from the use of heavy-duty construction equipment.

The project allows for more mixed-use developments and allows for the increase of the overall amount of development within the project areas described in Chapter 3, Project Description.

Since individual project-specific information is not available at this time, potential short-term (construction-related) noise impacts can only be evaluated based on the typical construction activities associated with residential, commercial, and retail development. Potential construction

source noise and vibration levels were developed based on methodologies, reference noise levels, typical equipment usage, and other operating factors documented and contained in the Federal Highway Administration's (FHWA) Construction Noise Handbook (FHWA 2006), Federal Transit Administration's (FTA) Transit Noise and Vibration Impact Assessment document (FTA 2018), and Caltrans' Transportation and Construction Vibration Guidance Manual (Caltrans 2013a). Reference levels are noise emissions for specific equipment or activity types that are well-documented and for which their usage is common practice in the field of acoustics.

Construction activities associated with potential development projects could include: staging, demolition, site preparation (e.g., land clearing), fine and mass grading, utility trenching, foundation work (e.g., excavation, pouring concrete pads, drilling for piers), material deliveries (requiring travel along City roads), building construction (e.g., framing, concrete pouring, welding), paving, coating application, and site finishing work. In general, these activities would involve the use of worker vehicles, delivery trucks, dump trucks, and heavy-duty construction equipment such as (but not limited to) backhoes, tractors, loaders, graders, excavators, rollers, cranes, material lifts, generators, and air compressors. These types of construction activities would generate noise and vibration from the following sources:

- Heavy equipment operations at different work areas. Some heavy equipment would consist of mobile equipment such as a loader and excavator that would move around work areas; other equipment would consist of stationary equipment (e.g., cranes or material hoists/lifts) that would generally operate in a fixed location until work activities are complete. Heavy equipment generates noise from engine operation, mechanical systems and components (e.g., fans, gears, propulsion of wheels or tracks), and other sources such as backup alarms. Mobile equipment generally operates at different loads, or power outputs, and produces higher or lower noise levels depending on the operating load. Stationary equipment generally operates at a steady power output that produces a constant noise level.

- Vehicle trips, including worker, vendor, and haul truck trips. These trips are likely to primarily occur on key arterial roads and travel corridors.

Table 4.11-11 presents the noise levels associated with the typical types of construction equipment that could be used in the project area for future individual projects.

Construction noise impacts generally occur when construction activities occur in areas immediately adjoining noise-sensitive land uses, during noise-sensitive times of the day, or when construction durations last over extended periods of time. Demolition, site preparation, and grading phases typically result in the highest temporary noise levels due to the use of heavy-duty equipment such as bulldozers, excavators, graders, loaders, scrapers, and trucks. As shown in Table 4.11-11, the worst-case $L_{eq}$ and $L_{max}$ noise levels associated with the operation of construction equipment are predicted to be approximately 82 and 85 dBA, respectively, at a distance of 50 feet from the equipment operating area. At an active construction site, it is not uncommon for two or more pieces of construction equipment to operate at the same time and in close proximity. The concurrent

operation of two or more pieces of construction equipment would result in noise levels of approximately 85 to 88 dBA at a distance of 50 feet from equipment operating areas[1].

**Table 4.11-11: Typical Construction Equipment Noise Levels (dBA)**

| Equipment | Reference Noise Level at 50 Feet ($L_{max}$)(A) | Percent Usage Factor(B) | Predicted Noise Levels ($L_{eq}$) at Distance(C) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 50 Feet | 100 Feet | 200 Feet | 300 Feet | 400 Feet | 500 Feet |
| Auger Drill Rig | 85 | 0.2 | 78 | 72 | 66 | 62 | 60 | 58 |
| Backhoe | 80 | 0.4 | 76 | 70 | 64 | 60 | 58 | 56 |
| Boring Jack Power Unit | 80 | 0.5 | 77 | 71 | 65 | 61 | 59 | 57 |
| Bulldozer | 85 | 0.4 | 81 | 75 | 69 | 65 | 63 | 61 |
| Compact roller | 80 | 0.2 | 73 | 67 | 61 | 57 | 55 | 53 |
| Compressor | 80 | 0.4 | 76 | 70 | 64 | 60 | 58 | 56 |
| Concrete Mixer | 85 | 0.4 | 81 | 75 | 69 | 65 | 63 | 61 |
| Crane | 85 | 0.16 | 77 | 71 | 65 | 61 | 59 | 57 |
| Delivery Truck | 84 | 0.4 | 80 | 74 | 68 | 64 | 62 | 60 |
| Excavator | 85 | 0.4 | 81 | 75 | 69 | 65 | 63 | 61 |
| Front End Loader | 80 | 0.4 | 76 | 70 | 64 | 60 | 58 | 56 |
| Generator | 82 | 0.5 | 79 | 73 | 67 | 63 | 61 | 59 |
| Horizontal Boring Hydraulic Jack | 80 | 0.25 | 74 | 68 | 62 | 58 | 56 | 54 |
| Impact Pile Driver (low) | 95 | 0.2 | 88 | 82 | 76 | 72 | 70 | 68 |
| Impact Pile Driver (high) | 101 | 0.2 | 94 | 88 | 82 | 78 | 76 | 74 |
| Man Lift | 85 | 0.2 | 78 | 72 | 66 | 62 | 60 | 58 |
| Paver | 85 | 0.5 | 82 | 76 | 70 | 66 | 64 | 62 |
| Pneumatic tools | 85 | 0.5 | 82 | 76 | 70 | 66 | 64 | 62 |
| Pumps | 77 | 0.5 | 74 | 68 | 62 | 58 | 56 | 54 |
| Roller | 85 | 0.2 | 78 | 72 | 66 | 62 | 60 | 58 |
| Scraper | 85 | 0.4 | 81 | 75 | 69 | 65 | 63 | 61 |
| Tractor | 84 | 0.4 | 80 | 74 | 68 | 64 | 62 | 60 |
| Vacuum Truck | 85 | 0.4 | 81 | 75 | 69 | 65 | 63 | 61 |

Sources: Caltrans 2013a and FHWA 2010

(A) $L_{max}$ noise levels based on manufacturer's specifications.

(B) Usage factor refers to the amount of time the equipment produces noise over the time period.

(C) Estimate does not account for any atmospheric or ground attenuation factors. Calculated noise levels based on Caltrans, 2009: $L_{eq}$ (hourly) = $L_{max}$ at 50 feet – 20log (D/50) + 10log (UF), where: $L_{max}$ = reference $L_{max}$ from manufacturer or other source; D = distance of interest; UF = usage fraction or fraction of time period of interest equipment is in use.

The magnitude of each individual future project's temporary and periodic increase in ambient noise levels would be dependent upon a number of project-specific factors that are not known at this time, including: the amount and type of equipment being used; the distance between the area where equipment is being operated and the location of the specific land use or receptor where noise levels are being evaluated; the time of day construction activities are occurring; the presence or absence

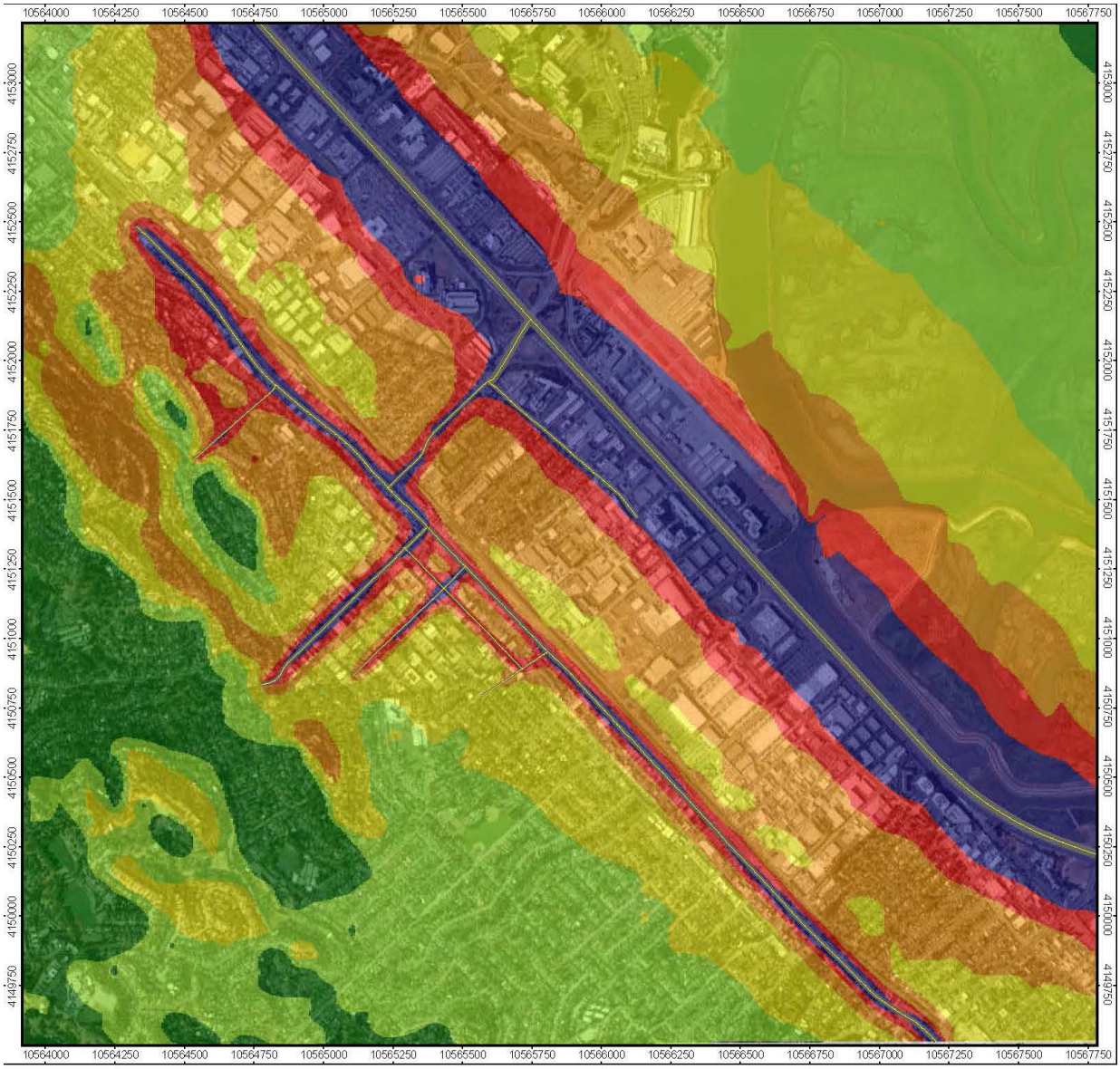
[1] As shown in Table 4.13-10, a single bulldozer provides a sound level of 81 dBA Leq at a distance of 50 feet; when two identical sound levels are combined, the noise level increases to 84 dBA Leq and when three identical sound levels are combined, the noise level increases to 86 dBA Leq. These estimates assume no shielding or other noise control measures are in place at or near the work areas.

of any walls, buildings, or other barriers that may absorb or reflect sound waves; the total duration of the construction activities; and the existing ambient noise levels near construction areas. For example, a noise level of 88 dBA $L_{max}$ would be similar to typical $L_{max}$ levels measured throughout the project area near arterial roads and freeways, but sustained $L_{eq}$ levels of 85 dBA would be approximately 15 to 22 above daytime ambient conditions along key roadways (e.g., LT-1 and LT-2, see Table 4.11-2), and up to 35 dBA above daytime ambient conditions in residential neighborhoods away from major roadways (e.g., ST-4; see Table 4.11-2). Typically, sustained construction noise levels of 80 to 85 dBA or higher would require the implementation of construction noise control practices such as staging area restrictions (e.g., sitting staging areas away from sensitive receptors), equipment controls (e.g., covered engines and use of electrical hook-ups instead of generators), and/or the installation of temporary noise barriers of sufficient height, size (length or width), and density to achieve targeted noise reductions.

Future development under the project would result in construction activities that could temporarily increase ambient noise levels by 15 dB or more. The City's existing Municipal Code requirements and General Plan policies would ensure construction activities do not occur during the most sensitive time periods (e.g., evening and nighttime periods) and require future discretionary projects to assess and minimize construction noise levels consistent with City goals, policies, and code standards.

***Impact NOISE-2 –The project would not result in the generation of a substantial <u>permanent</u> increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (Less Than Significant Impact)***

Implementation of the project could have the potential to change the existing amounts and types of land uses within the project area which could increase the number of residents and employees. This possible increase in population and employment could lead to increased vehicle traffic on the local roadway system, which could result in traffic-related noise levels that pose land use compatibility issues or result in a substantial permanent increase in traffic-related noise levels throughout the project area. Project implementation could also involve increases in stationary noise and other sources of noise within the project area. These potential effects are evaluated below.




**Levels in dB(A)**

| | |
|---|---|
| | < 45 |
| 45 - | 50 |
| 50 - | 55 |
| 55 - | 60 |
| 60 - | 65 |
| >= | 65 |

**Length scale 1:1150**

0 500 1000 2000 3000 feet

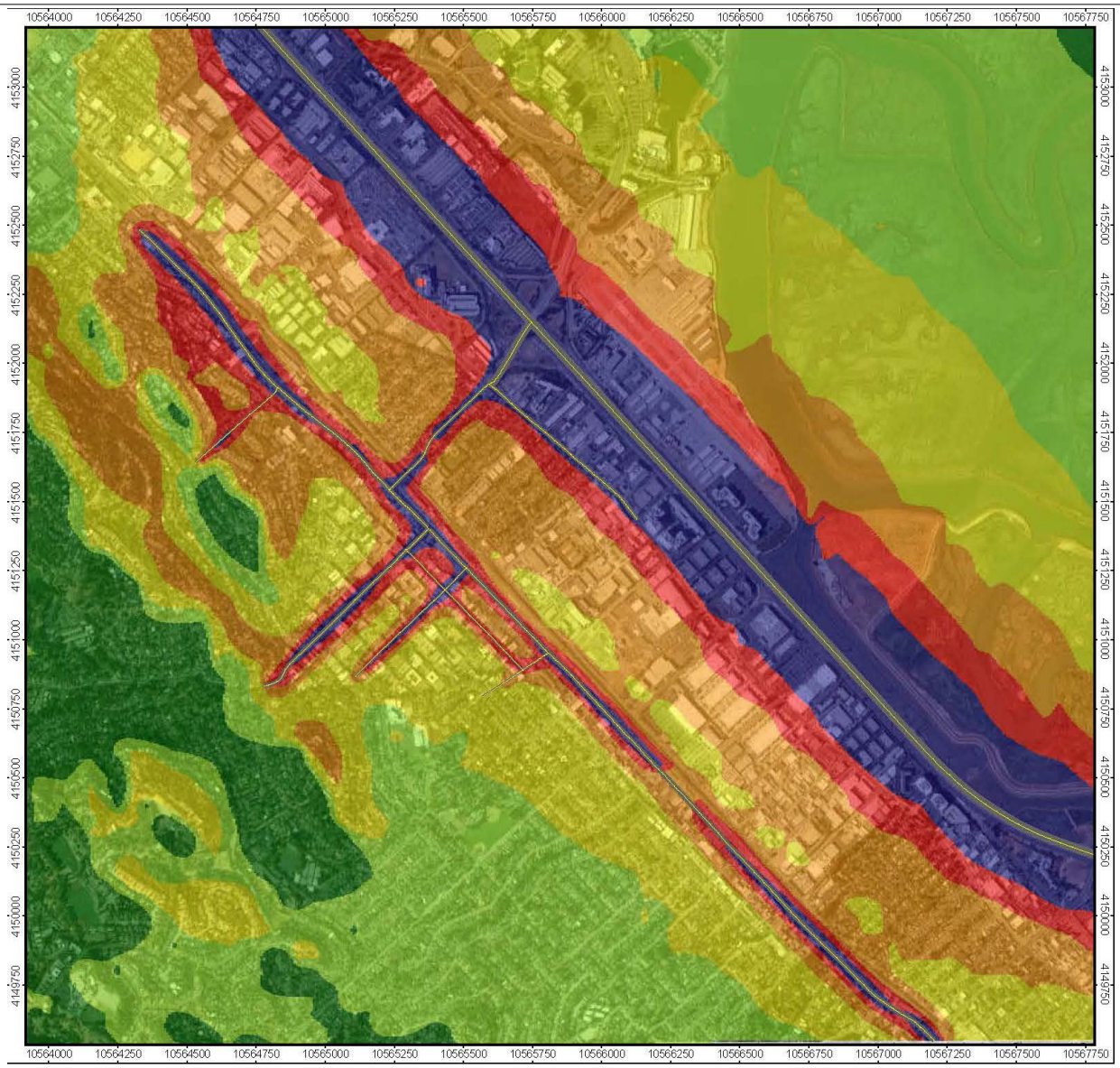
**Signs and symbols**

Road

*Source: MD Acoustics 2022*

**Figure 4.11-3** 2040 Roadway Noise Contours

*Focused General Plan Update*




**Levels in dB(A)**

| | |
|---|---|
| | < 45 |
| | 45 - 50 |
| | 50 - 55 |
| | 55 - 60 |
| | 60 - 65 |
| | >= 65 |

**Length scale 1:1150**

0 500 1000 2000 3000 feet

**Signs and symbols**

Road

*Source: MD Acoustics 2022*

**Figure 4.11-4** 2040 Plus Project Noise Contours

### Increases in Traffic and Rail Noise Levels

Although the project does not authorize any specific development project or increase existing vehicular traffic levels, the City contracted with a professional transportation engineering firm (W-Trans) to conduct travel demand modeling associated with the proposed project land use changes (W-Trans, 2022; see Chapter 4.17, Transportation, and Appendix E). The travel demand modeling provides a sufficient level of detail to generally evaluate the potential future increases in traffic-related noise levels associated with projected growth. Future 2040 Project traffic noise levels were computed using the same methodology (TNM methodology) and data sources used to calculate existing (Year 2019) and future (Year 2040) baseline traffic noise levels (see Section 4.13.2 and), except that 2040 Project traffic levels were obtained from the TIA prepared for the project and entered into the traffic model. See Figure 4.11-3 for 2040 Roadway Noise Contours and Figure 4.11-4 for 2040 Plus Project Noise Contours).

**Table 4.11-12: 2040 Plus Project Transportation Noise Contour Distances (2040)**

| Road / Segment | Predicted Ldn 50 Feet from Road Centerline (dBA)[(A)] | Ldn Contour and Distance from Road Centerline in Feet | | | |
|---|---|---|---|---|---|
| | | 75 | 70 | 65 | 60 |
| **Holly St** | | | | | |
| US-101 to Industrial Rd | 71.2 | 66 | 208 | 657 | 2077 |
| Industrial Rd to Old County Rd | 66.9 | 24 | 77 | 243 | 770 |
| Old County Rd to El Camino Real | 66.9 | 24 | 77 | 243 | 768 |
| **El Camino Real** | | | | | |
| Harbor Blvd to Hull Dr | 70.7 | 59 | 187 | 590 | 1867 |
| Hull Dr to Holly St | 69.2 | 42 | 131 | 416 | 1315 |
| Holly St to San Carlos Ave | 70.0 | 50 | 158 | 501 | 1585 |
| San Carlos Ave to Cherry St | 64.1 | 13 | 41 | 130 | 410 |
| Cherry St to Arroyo Ave | 63.9 | 12 | 38 | 122 | 385 |
| Arroyo Ave to Brittan Ave | 66.3 | 21 | 68 | 214 | 677 |
| Brittan Ave to Howard Ave | 67.4 | 27 | 86 | 272 | 860 |
| Howard Ave to White Oak Way | 66.9 | 24 | 77 | 245 | 773 |
| White Oak Way to St Francis Way | 66.8 | 24 | 75 | 238 | 752 |
| St Francis Way to Whipple Ave | 67.2 | 26 | 83 | 262 | 829 |
| **Laurel St** | | | | | |
| San Carlos Ave to Cherry St | 62.0 | 8 | 25 | 79 | 251 |
| Cherry St to Arroyo Ave | 60.7 | 6 | 19 | 59 | 186 |
| San Carlos Ave | | | | | |
| El Camino Real to Laurel St | 67.9 | 31 | 97 | 307 | 969 |
| Laurel St to Walnut St | 67.1 | 26 | 81 | 255 | 807 |
| Walnut St to Elm St | 66.8 | 24 | 76 | 239 | 756 |
| Elm St to Cedar St | 68.9 | 38 | 121 | 384 | 1214 |
| Cedar St to Cordilleras Ave | 64.9 | 15 | 49 | 153 | 485 |
| **Industrial Rd** | | | | | |
| Holly St to San Carlos Ave | 65.7 | 18 | 58 | 184 | 581 |
| San Carlos Ave to Cherry St | 62.4 | 9 | 28 | 88 | 277 |
| Cherry St to Terminal Way | 62.7 | 9 | 29 | 92 | 292 |
| Terminal Way to Bransten Rd | 62.7 | 9 | 29 | 92 | 292 |
| **US-101** | | | | | |
| Harbor Blvd to Brittan Ave | 83.3 | 2150 | 6800 | 21504 | 68002 |
| **Hull Dr** | | | | | |

| Table 4.11-12: 2040 Plus Project Transportation Noise Contour Distances (2040) | | | | | |
|---|---|---|---|---|---|
| **Road / Segment** | **Predicted Ldn 50 Feet from Road Centerline (dBA)[(A)]** | **Ldn Contour and Distance from Road Centerline in Feet** | | | |
| | | **75** | **70** | **65** | **60** |
| El Camino Real to Cedar St | 58.7 | 4 | 12 | 37 | 119 |
| Cherry St | | | | | |
| El Camino Real to Cedar St | 61.8 | 8 | 24 | 76 | 241 |
| **Arroyo Ave** | | | | | |
| El Camino Real to Cedar St | 60.2 | 5 | 17 | 53 | 166 |
| Laurel St to Elm St | 51.0 | 1 | 2 | 6 | 20 |

Source: MD, 2022 (see Appendix E)
CNEL values are as estimated 50 feet from the road center, excepting US-101 (Ldn at 100 feet).

| Table 4.11-13: Future (2040) and Future Plus Project (2040) Traffic Noise Levels | | | | | | |
|---|---|---|---|---|---|---|
| **Road / Segment** | **Future (2040)** | | **Future Plus Project (2040)** | | **Net Change** | |
| | **ADT** | **Ldn[(A)]** | **ADT** | **Ldn[(A)]** | **ADT** | **Ldn** |
| **Holly St** | | | | | | |
| US-101 to Industrial Rd | 49,906 | 71.0 | 52,612 | 71.2 | 2,706 | 0.2 |
| Industrial Rd to Old County Rd | 27,236 | 66.3 | 30,931 | 66.9 | 3,695 | 0.6 |
| Old County Rd to El Camino Real | 27,831 | 66.4 | 30,856 | 66.9 | 3,025 | 0.5 |
| **El Camino Real** | | | | | | |
| Harbor Blvd to Hull Dr | 30,094 | 70.4 | 32,102 | 70.7 | 2,008 | 0.3 |
| Hull Dr to Holly St | 30,533 | 68.9 | 32,728 | 69.2 | 2,195 | 0.3 |
| Holly St to San Carlos Ave | 35,788 | 69.6 | 39,446 | 70.0 | 3,658 | 0.4 |
| San Carlos Ave to Cherry St | 13,932 | 63.7 | 15,530 | 64.1 | 1,598 | 0.4 |
| Cherry St to Arroyo Ave | 13,455 | 63.5 | 14,561 | 63.9 | 1,106 | 0.4 |
| Arroyo Ave to Brittan Ave | 23,889 | 66.0 | 25,625 | 66.3 | 1,736 | 0.3 |
| Brittan Ave to Howard Ave | 30,278 | 67.0 | 32,525 | 67.4 | 2,247 | 0.4 |
| Howard Ave to White Oak Way | 27,247 | 66.6 | 29,257 | 66.9 | 2,010 | 0.3 |
| White Oak Way to St Francis Way | 26,772 | 66.5 | 28,473 | 66.8 | 1,701 | 0.3 |
| St Francis Way to Whipple Ave | 29,095 | 66.9 | 31,350 | 67.2 | 2,255 | 0.3 |
| **Laurel St** | | | | | | |
| San Carlos Ave to Cherry St | 15,267 | 61.6 | 16,720 | 62.0 | 889 | 0.2 |
| Cherry St to Arroyo Ave | 11,887 | 60.5 | 12,413 | 60.7 | 889 | 0.2 |
| **San Carlos Ave** | | | | | | |
| El Camino Real to Laurel St | 22,429 | 67.4 | 24,744 | 67.9 | 2,315 | 0.5 |
| Laurel St to Walnut St | 19,810 | 66.9 | 20,613 | 67.1 | 803 | 0.2 |
| Walnut St to Elm St | 20,456 | 67.0 | 21,407 | 67.2 | 951 | 0.2 |
| Elm St to Cedar St | 20,487 | 68.6 | 21,546 | 68.9 | 1,059 | 0.3 |
| Cedar St to Cordilleras Ave | 17,661 | 64.6 | 18,637 | 64.9 | 976 | 0.3 |
| **Industrial Rd** | | | | | | |
| Holly St to San Carlos Ave | 22,086 | 65.6 | 22,325 | 65.7 | 239 | 0.1 |
| San Carlos Ave to Cherry St | 10,441 | 62.4 | 10,649 | 62.4 | 208 | 0.0 |
| Cherry St to Terminal Way | 11,001 | 62.6 | 11,201 | 62.7 | 200 | 0.1 |
| Terminal Way to Bransten Rd | 11,001 | 62.6 | 11,201 | 62.7 | 200 | 0.1 |
| **US-101** | | | | | | |
| Harbor Blvd to Brittan Ave | 257,675 | 83.3 | 257,515 | 83.3 | -160 | 0.0 |
| **Hull Dr** | | | | | | |
| El Camino Real to Cedar St | **6,260** | **57.7** | **7,896** | **58.7** | **1,636** | **1.0** |
| **Cherry St** | | | | | | |

| Table 4.11-13: Future (2040) and Future Plus Project (2040) Traffic Noise Levels | | | | | | |
|---|---|---|---|---|---|---|
| | Future (2040) | | Future Plus Project (2040) | | Net Change | |
| **Road / Segment** | **ADT** | **Ldn(A)** | **ADT** | **Ldn(A)** | **ADT** | **Ldn** |
| El Camino Real to Cedar St | 13,196 | 61.0 | 16,036 | 61.8 | 2,840 | 0.8 |
| **Arroyo Ave** | | | | | | |
| El Camino Real to Laurel St | 10,435 | 60.0 | 11,062 | 60.2 | 627 | 0.2 |
| Laurel St to Elm St | 1,437 | 51.3 | 1,320 | 51.0 | -117 | -0.3 |

Source: MD, 2022 (see Appendix D)
CNEL values are as estimated 50 feet from the road center except for US-101 (Ldn at 100 feet)

Rail noise contours were not evaluated as a part of this analysis as rail noise levels are not expected to significantly increase as a result of the project.

ADT and traffic noise levels that would occur with implementation of the project. Refer to Appendix D for detailed transportation noise modeling results.

As shown in Table 4.13-14, the results of the traffic noise modeling indicate that traffic noise levels within the project area would continue to be highest along major travel corridors such as US 101, El Camino Real, Holly Street, and San Carlos Ave; however, the project would not substantially increase traffic volumes or traffic noise levels along these roadways. The traffic noise modeling indicates the project will increase traffic noise levels by no more than one decibel on every segment.

Pursuant to the State noise standards, California Building Code, Section 1207.4, new residential structures would be required to be constructed such that interior noise levels do not exceed an 45 dBA Ldn. Standard construction techniques and materials are commonly accepted to provide a minimum exterior to interior noise attenuation (i.e., reduction) of 22–25 dBA with all windows and doors closed (HUD 2009a and 2009b).[2] These interior noise reductions would be adequate for some developments occurring under the project to meet interior noise standards. New residential and mixed-use developments particularly along segments with higher speed limits (40 mph or more) could require additional noise attenuation design features along roadways that are estimated to exceed 65 CNEL under existing and future conditions. Similarly, the 2030 Traffic and Railroad Noise Level Contours from the existing General Plan indicate that the project has proposed residential developments within the railway's 65 Ldn contour. Adherence to the State's mandatory noise standards would ensure residential and mixed-use structures within the project area meet or exceed the 45 dBA Ldn standard.

[2] The U.S. Department of Housing and Urban Development (HUD) Noise Guidebook and supplement (2009a, 2009b) includes information on noise attenuation provided by building materials and different construction techniques. As a reference, a standard exterior wall consisting of 5/8-inch siding, wall sheathing, fiberglass insulation, two by four wall studs on 16-inch centers, and 1/2-inch gypsum wall board with single strength windows provides approximately 35 dBs of attenuation between exterior and interior noise levels. This reduction may be slightly lower (2-3 dBs) for traffic noise due to the specific frequencies associated with traffic noise. Increasing window space may also decrease attenuation, with a reduction of 10 dBs possible if windows occupy 30% of the exterior wall façade.

### Increases in Stationary and Other Sources of Noise

Stationary and other sources of noise in the project area include, but are not limited to, landscape and building maintenance activities, stationary mechanical equipment (e.g., pumps, generators, HVAC units), garbage collection activities, commercial and industrial activities, and other stationary and area sources such as people's voices, amplified music, and public address systems.

Noise generated by residential or commercial uses is generally short-term and intermittent. Industrial uses may generate noise on a more continual basis due to the types of their activities. The project would increase residential and commercial development within the project area and, in particular, allow mixed use development in which residential and commercial uses are integrated into a single development project. These types of developments tend to have higher noise levels associated with the mix of land uses contained within them. Future planned development could also result in new stationary and area sources as well as exposure of new sensitive land uses to existing stationary and area sources.

The City's existing General Plan includes goals and policies that minimize the impact of ambient and operational noise levels throughout the City. In addition, San Carlos Municipal Code Chapter 9.30 Noise Regulation) establishes the City's standards related to noise.

Thus, stationary and other sources of noise would be controlled by the General Plan goals and policies, and the Municipal Code, which limit allowable noise levels at adjacent properties. Therefore, future stationary noise sources would comply with City standards and would not expose people to a substantial permanent increase in noise levels.

Stationary and other sources of noise would be controlled by the General Plan goals and policies, and the Municipal Code, which limits allowable noise levels at adjacent properties. Therefore, future operational noise would comply with City standards and would not expose people to a substantial permanent increase in noise levels from transportation or non-transportation noise sources.

***Impact NOISE-3– The project would not result in the generation of excessive groundborne vibration or groundborne noise levels. (Less Than Significant Impact)***

### Temporary Construction Vibration Levels

Construction activities have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and activities involved. Vibration generated by construction equipment spreads through the ground and diminishes with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, result in low rumbling sounds and detectable vibrations at moderate levels, and at high levels can cause sleep disturbance in places where people normally sleep or annoyance in buildings that are primarily used for daytime functions and sleeping (e.g., a hospital). Ground vibration can also potentially damage the foundations and exteriors of existing structures even if it does not result in a negative human response. Pile drivers and other pieces of high-impact construction equipment

are generally the primary cause of construction-related vibration impacts. The use of such equipment is generally limited to sites where there are extensive layers of very hard materials (e.g., compacted soils, bedrock) that must be loosened or penetrated to achieve grading and foundation design requirements. The need for such methods is usually determined through site-specific geotechnical investigations that identify the subsurface materials within the grading envelope, along with foundation design recommendations and the construction methods needed to safely permit development of a site.

Construction equipment and activities are categorized by the nature of the vibration they produce. Equipment or activities typical of continuous vibration include excavation equipment, static compaction equipment, vibratory pile drivers, and pile-extraction equipment. Equipment or activities typical of transient (single-impact) or low-rate, repeated impact vibration include impact pile drivers, and crack-and-seat equipment. Pile driving and blasting activities produce the highest levels of ground vibration and can result in structural damage to existing buildings.

Since individual project-specific information is not available at this time, potential short-term construction-related vibration impacts can only be evaluated based on the typical construction activities associated with residential, commercial, and industrial development. Potential construction source vibration levels were developed based on methodologies, reference noise levels, and typical equipment usage and other operating factors documented and contained in the FHWA's Construction Noise Handbook (FHWA, 2006), FTA's Transit Noise and Vibration Impact Assessment document (FTA 2018), and Caltrans' Transportation and Construction Vibration Guidance Manual (Caltrans, 2020). Reference levels are vibration emissions for specific equipment or activity types that are well-documented and for which their usage is common practice in the field of acoustics.

Future development as a result of the project would occur in primarily urban settings where land is already disturbed and, therefore, is not likely to require blasting, which is typically used to remove unwanted rock or earth. Standard construction equipment (e.g., bulldozers, trucks, jackhammers) generally does not cause vibration that could cause structural or cosmetic damage but may be felt by nearby receptors. Table 4.11-14 presents the typical types of equipment that could be used for future development activities in the project area.

**Table 4.11-14: Ground-borne Vibration and Noise from Typical Construction Equipment**

| | Peak Particle Velocity (in/sec) (A) | | | Velocity Decibels (VdB) (B) | | |
|---|---|---|---|---|---|---|
| **Equipment** | **25 feet** | **50 feet** | **100 feet** | **25 feet** | **50 feet** | **100 feet** |
| Small bulldozer | 0.003 | 0.001 | 0.001 | 58 | 49 | 40 |
| Jackhammer | 0.035 | 0.016 | 0.008 | 79 | 70 | 61 |
| Rock Breaker | 0.059 | 0.028 | 0.013 | 83 | 74 | 65 |
| Loaded truck | 0.076 | 0.035 | 0.017 | 86 | 77 | 68 |
| Auger Drill Rig | 0.089 | 0.042 | 0.019 | 87 | 78 | 69 |

| Table 4.11-14: Ground-borne Vibration and Noise from Typical Construction Equipment | | | | | | |
|---|---|---|---|---|---|---|
| | Peak Particle Velocity (in/sec) (A) | | | Velocity Decibels (VdB) (B) | | |
| **Equipment** | **25 feet** | **50 feet** | **100 feet** | **25 feet** | **50 feet** | **100 feet** |
| Large bulldozer | 0.089 | 0.042 | 0.019 | 87 | 78 | 69 |
| Vibratory Roller | 0.210 | 0.098 | 0.046 | 94 | 85 | 76 |
| Impact Pile Driver (upper range) | 1.518 | 0.708 | 0.330 | 112 | 103 | 94 |
| Impact Pile Driver (typical) | 0.644 | 0.300 | 0.140 | 104 | 95 | 86 |
| Sonic Pile Driver (upper range) | 0.734 | 0.42 | 0.160 | 105 | 96 | 87 |
| Sonic Pile Driver (typical) | 0.170 | 0.079 | 0.037 | 93 | 84 | 75 |

Sources: Caltrans 2013 and FTA 2018
(A) Estimated PPV calculated as: PPV(D)=PPV(ref)*(25/D)^1.1 where PPV(D)= Estimated PPV at distance; PPVref= Reference PPV at 25 ft; D= Distance from equipment to receiver; and n= ground attenuation rate (1.1 for dense compacted hard soils).
(B) Estimated Lv calculated as: Lv(D)=Lv(25 feet)-30Log(D/25) where Lv(D)= estimated velocity level in decibels at distance, Lv(25 feet)= RMS velocity amplitude at 25 ft; and D= distance from equipment to receiver.

As shown in Table 4.11-10, specific vibration levels associated with typical construction equipment are highly dependent on the type of equipment used. Vibration levels dissipate rapidly with distance, such that even maximum impact pile driving activities would result in vibration levels below Caltrans' recommended 0.5 PPV threshold for transient vibration-induced damage in historic, older buildings at a distance 100 feet; all other activities would be below Caltrans' threshold for transient vibration-induced damage in historic, older buildings at a distance of 25 feet. For human responses, maximum impact pile driving activities would result in ground-borne vibration and noise levels below Caltrans' threshold for a distinctly perceptible response (0.24 PPV) and the FTA's vibration standard for infrequent events at residential lands (80 VdB) at a distance of approximately 150 feet and 300 feet, respectively. All other activities may be barely to distinctly perceptible when occurring within approximately 150 feet of sensitive land uses. This impact is considered less than significant.

### Long-Term Ground-borne Vibration Levels

The proposed project could facilitate the construction of mixed-use and residential projects adjacent to the existing Caltrain railroad. With regards to vibration impacts on new development near railroads, human disturbance is the primary concern. It is extremely rare for vibration levels from trains passing to result in structural damage to buildings. In addition, buses and other transit vehicles are not anticipated to generate excessive vibration levels that would disturb sensitive receptors because these vehicles are traveling at lower speeds and do not generate substantial vibrations.

Typical construction activities may be barely to distinctly perceptible when occurring within approximately 150 feet of sensitive land uses. Most construction equipment does not operate in

the same location for prolonged periods of time. Therefore, even if construction equipment were to operate near a building where receptors may feel vibration, it would only be for a temporary amount of time and would not be considered excessive. This impact is considered less than significant.

***Impact NOISE-4 – The project is located within two miles of the San Carlos Airport, but would not expose people residing or working in the area to excessive noise levels. (No Impact)***

The closest airport to the project area is the San Carlos Airport. The project area is not located in any noise contour zone associated with this airport and would not expose people residing or working in the project area to excessive airport-related noise levels. Therefore, there would be no impact.

***Impact NOISE-5– The project would not cause substantial adverse cumulative impacts with respect to noise or vibration. (No Impact)***

Project implementation would result in construction noise and vibration as individual development projects are constructed over time. Each individual development would be subject to City regulations and policies regarding construction noise and vibration (See Impact NOISE-1 and NOISE-3). These policies and measures establish the overall goal and intent of the City to protect residents from excessive construction noise and vibration, to require the appropriate evaluation of construction noise and vibration impacts at sensitive receptor locations, and to implement feasible construction noise and vibration control measures when development occurs near noise-sensitive land uses. Therefore, construction noise would not make a cumulatively considerable contribution to a significant cumulative construction noise impact.

Once constructed, development projects would contribute to the potential permanent increases in noise levels evaluated under Impact NOISE-2. The proposed project would not generate significant increases in traffic noise levels on a cumulative basis. The project abides by the City's intent to establish clear and enforced noise regulations for all land uses, consider operational noise impacts during the development review process, and limit new development in noise-impacted areas unless the development includes mitigation measures to reduce noise and vibration levels to acceptable levels. In addition, the proposed project would protect residents from excessive stationary noise sources and as new land uses must meet the San Carlos Municipal Code noise standards through evaluation and design considerations. Therefore, future operations would not make a cumulatively considerable contribution to a significant cumulative operational noise impact.

In general, ground-borne operational vibration impacts are site-specific and do not have the potential to combine with vibration impacts. No cumulative impact would occur. The proposed project would not result in a cumulative considerable contribution to cumulative noise and vibration impacts.

### 4.11.6 References

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U.S. Department of Housing and Urban Development (HUD). 2009a.HUD Noise Guidebook. Prepared by the Environmental Planning Division, Office of Environment and Energy. March 2009.

_____. 2009b. HUD Noise Guidebook, Chapter 4 Supplement: Sound Transmission Class Guidance. Prepared by the Environmental Planning Division, Office of Environment and Energy. March 2009.

# 4.12 POPULATION AND HOUSING

This section describes the existing population, housing and employment characteristics of the project area. It includes a description of the regulatory framework and analyzes impacts that could result from the implementation of the proposed Focused GPU. All other project components not specifically mentioned in the analysis would have no appreciable effect on population and housing.

## 4.12.1 Environmental Setting

The project area, approximately eight square miles in size, includes a mix of urban and suburban uses. Residential land uses are the predominant land use in San Carlos, and account for more than half of the total land area. Mixed-use land uses total less than one percent. Commercial and light industrial land uses comprise 14 percent and public facilities and institutions makes up nine percent. Park and open space uses encompass 19 percent. Parking uses total 20 acres or less than one percent, while vacant land makes up three percent of the project area.

The following sections describes the existing population, housing and employment characteristics within the City. Unless otherwise noted, the majority of existing conditions information, included below, is taken from the proposed Housing Element Update.

### Population

Between 2010 and 2020, the population of San Carlos grew approximately six percent, from 28,406 to 30,145 residents. This was a slower growth rate than the County of San Mateo, which experienced a 7.6 percent increase from 2010 to 2020. The Association of Bay Area Governments (ABAG) growth forecasts predict a steady increase in population through 2030. From 2020 to 2030, ABAG estimates that the City's population will grow by 12.5 percent, while countywide population is expected to increase by 10.4 percent. However, both are forecast to grow at a slower rate between 2030 and 2040. Table 4.12-1 shows expected population growth within San Carlos and San Mateo County. The demographics and racial profile of the City is found in Table 4.12-2.

**Table 4.12-1: Population and Projected Growth**

| Area | 2010 | 2020 | 2030 | 2040 | 2010-2020 Change | 2020-2030 Projected Change | 2030-2040 Projected Change |
|---|---|---|---|---|---|---|---|
| San Carlos | 28,406 | 30,145 | 33,915 | 35,250 | 5.8% | 7.8% | 3.9% |
| San Mateo County | 718,451 | 773,244 | 853,260 | 916,590 | 7.1% | 10.4% | 7.4% |

Source: CA Department of Finance E-5 Population and Housing Estimates, ABAG Growth Forecasts (Plan Bay Area 2040).

| Table 4.12-2: Demographics and Racial Profile of the City | |
|---|---|
| **Demographic Profile** | **2018** |
| Age | |
| 0-19 | 7,754 (26%) |
| 20-44 | 8,522 (28%) |
| 45-64 | 9,146 (30%) |
| 65+ | 4,658 (16%) |
| **Median Age** | 42.2 |
| Race/Ethnicity | |
| White (non-Hispanic) | 22,612 (75%) |
| Hispanic | 2,579 (9%) |
| Black | 205 (0.7%) |
| Asian/Pacific Islander | 4,992 (17%) |
| Other | 466 (1.5%) |

Source: US Census Bureau, 2010, 2018 5-Year Estimates

## Housing

In 2020, the Department of Finance reported 12,385 housing units in San Carlos. According to the City's building permit records, between 2010 and 2019 the local housing stock has increased by 550 units. Most of the City's housing stock is made up of single-family attached and detached homes (72 percent) with the remaining 28 percent multi-family units. Census data indicates that 0.2 percent of owner units and 3.1 percent of rental units are vacant.

The San Carlos median home price in October 2021, based on information provided by CoreLogic, was $2,320,000. This median home price was $795,000 higher than the median home price in San Mateo County at large.

More than a quarter (28 percent) of San Carlos households are renters. While there are limited sources that provide median or average rents for a specific geography, the Census estimates the median gross rent between 2016 and 2020 in San Carlos was $2,423 per month.

## Employment

Residents in San Carlos are primarily employed in professional, scientific, management, and administrative and waste management services (24 percent), and educational services, health care and social assistance (21 percent). The average salary for professional, scientific, and management, and administrative and waste management services jobs is $126,060 a year while those in and educational services, and health care and social assistance make, on average, $66,359.

According to the 2017 Economic Census prepared by the U.S. Census Bureau, most (92 percent) employed residents work outside of San Carlos. In addition to the estimated 985 residents who live and work in San Carlos, over 13,000 workers commute into San Carlos for their jobs.

### 4.12.2 Regulatory Setting

#### State

Housing Element Law (California Government Code Article 10.6).

State law requires each city and county to prepare and maintain a current housing element as part of the community's General Plan in order to attain a statewide goal of providing "decent housing and a suitable living environment for every California family." Under state law, housing elements must be updated every eight years and reviewed by the State Department of Housing and Community Development.

#### Regional

Regional Housing Needs Allocation

Housing Element law requires a quantification of each jurisdiction's share of the regional housing need as established in the plan prepared by the jurisdiction's council of governments. The California Department of Housing and Community Development (HCD), in conjunction with ABAG, determine a projected housing need for the Bay Area. This share, known as the Regional Housing Needs Allocation (RHNA), is projected to be 441,176 new housing units for the 2023-2031 planning period throughout the ABAG region. ABAG has, in turn, allocated this share among municipalities, distributing to each a RHNA divided into income levels. The City of San Carlos has an estimated RHNA of 2,390 housing units to accommodate in the housing element period. The RHNA allocation distribution is as shown in Table 4.12-3.

**Table 4.12-3: City of San Carlos Regional Housing Needs Allocation**

| Income Category | Number of Housing Units | Percent of Total Allocation |
|---|---|---|
| Very Low (0-50% of County AMI) | 650 | 27% |
| Low (> 50-80% of County AMI) | 370 | 15% |
| Moderate (>80-120% of County AMI) | 380 | 16% |
| Above Moderate (120% of County AMI) | 990 | 41% |
| **Total** | **2,390** | |

Plan Bay Area 2050

*Plan Bay Area 2050* is a long-range plan for the nine-county San Francisco Bay Area. *Plan Bay Area 2050* focuses on four key elements — housing, the economy, transportation and the environment — and identifies a path to make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges. With respect to housing, the Plan projects that

the Bay Area will need to add more than 441,000 new affordable housing units by 2050 to meet the region's housing needs. The following housing strategies were identified in *Plan Bay Area 2050*:

*H1. Further strengthen renter protections beyond State law.* Building upon recent tenant protection laws, limit annual rent increases to the rate of inflation, while exempting units less than 10 years old.

*H2. Preserve existing affordable housing.* Acquire homes currently affordable to low and middle-income residents for preservation as permanently deed-restricted affordable housing.

*H3. Allow a greater mix of housing densities and types in Growth Geographies.* Allow a variety of housing types at a range of densities to be built in Priority Development Areas, select Transit-Rich Areas and select High-Resource Areas.

*H4. Build adequate affordable housing to ensure homes for all.* Construct enough deed-restricted affordable homes to fill the existing gap in housing for the unhoused community and to meet the needs of low-income households.

*H5. Integrate affordable housing into all major housing projects.* Require a baseline of 10-20% of new market-rate housing developments of five units or more to be affordable to low-income households.

*H6. Transform aging malls and office parks into neighborhoods.* Permit and promote the reuse of shopping malls and office parks with limited commercial viability as neighborhoods with housing for residents at all income levels.

*H7. Provide targeted mortgage, rental and small business assistance to Equity Priority Communities.* Provide assistance to low-income communities and communities of color to address the legacy of exclusion and predatory lending, while helping to grow locally owned businesses.

*H8. Accelerate reuse of public and community-owned land for mixed-income housing and essential services.* Help public agencies, community land trusts and other non-profit landowners accelerate the development of mixed-income affordable housing.

## City of San Carlos General Plan

The 2009 General Plan includes the following policies related to housing:

<u>Land Use Element</u>

*Policy LU-1.2:* Encourage development of higher density housing and support additional job growth within the TOD corridor while being sensitive to surrounding uses.

*Policy LU-2.7:* Encourage residential and other uses in the Downtown Laurel Street area that contribute to the Downtown's vibrancy and activity.

*Policy LU-9.20*: Conversion of existing rental housing stock to condominiums shall be permitted only when it can be shown that:

- The vacancy rate in rental units in the city is in excess of 5 percent.
- Adequate provisions are made for the protection of tenants including relocation assistance.

2015-2023 Housing Element

*Policy HOU-1.1:* Established Residential Neighborhoods. Preserve and improve the existing character and livability of established residential neighborhoods through neighborhood improvements and rehabilitation programs.

*Policy HOU-1.2:* Lower Income Residents Displacement. Minimize potential displacement of existing lower income residents due to increasing housing prices and rents.

*Policy HOU-3.1:* Quality Design. Promote high quality multi-family housing and mixed-use projects in the Downtown area and along El Camino Real.

*Policy HOU-4.1:* Approach to Secondary Dwelling Units. Encourage second units as a form of affordable housing in compliance with the Secondary Dwelling Unit Ordinance as an important way to provide affordable housing in combination with primary residential uses on low-density lots.

*Policy HOU-4.2:* Incentives Provided for Secondary Dwelling Units. Encourage local agencies, districts and utility providers to reduce hook-up or other fees to facilitate the development of second units.

*Policy HOU-4.3:* Secondary Dwelling Unit Design and Approval. Encourage the development of well-designed new secondary dwelling units in existing neighborhoods by implementing objective standards for the approval of a second unit and continuing to evaluate the Zoning Ordinance to create opportunities for new second units.

Policy *HOU-5.1:* Housing Choices. Encourage a diversity of high-quality housing in various types, locations and price ranges for present and future residents.

*Policy HOU-5.2:* Workforce Housing. Establish programs to provide direct financial and technical assistance to facilitate the development of affordable workforce housing.

*Policy HOU-5.3:* Home Ownership. Encourage home ownership opportunities for households of all income levels.

*Policy HOU-5.4:* Rental and Owner Housing Mix. Encourage a mixture of rental and ownership properties throughout the city.

*Policy HOU-5.5:* Income Distribution of Lower Income Affordable Housing. Provide an adequate number of affordable housing units to extremely low, very low and low-income households, in proportion to the existing or projected need in the community as identified in the housing needs section of the Housing Element.

*Policy HOU-5.6:* Housing Preferences. Provide that housing policies and programs give preferences, where allowable by law, to households with members who live or work in San Carlos or school and fire districts that serve San Carlos.

*Policy HOU-5.7:* Funding for Lower Income Housing. Encourage the development of housing units for lower income housing by identifying and undertaking actions to obtain or assist in obtaining funding to address the needs of lower income households.

*Policy HOU-6.1:* Development Standards. Ensure applicants and developers are aware of the City's flexible zoning standards intended to encourage the production of new affordable housing.

*Policy HOU-6.2:* Constraint Removal. Regularly evaluate City regulations, ordinances and development fees to identify constraints to the development of affordable housing in San Carlos.

*Policy HOU-6.3:* General Plan Build-Out. Utilize the build-out analysis in the General Plan Land Use Element and provisions in CEQA guidelines for affordable housing projects to provide a streamlined environmental review process for qualified affordable housing projects.

*Policy HOU-7.2:* Single-Room Occupancy and Efficiency Apartments. Support the inclusion of Single Room Occupancy (SRO) units and efficiency apartments in multi-family and mixed use areas through standards established in the Zoning Ordinance.

### City of San Carlos Municipal Code

Chapter 18.16 of the San Carlos Municipal Code establishes the City's affordable housing programs which were recently revised in August 2022. Relevant portions of the ordinance are as follows:

18.16.030 Below market rate housing requirements.

A. Residential Development. For all residential ownership developments of five (5) or more dwelling units, at least twenty percent (20%) of the total units shall be below market rate units restricted for sale to and occupancy by low-income households unless the residential development is exempt under Section 18.16.040. For all residential rental developments of seven (7) or more dwelling units, at least fifteen percent (15%) of the total units shall be below market rate units

restricted for rent to and occupancy by low and very low-income households unless the residential development is exempt under Section 18.16.040. The number and type of below market rate units required for a particular residential development will be determined at first approval of the residential development in accordance with the provisions of Section 18.16.060. If a change in the residential development design results in a change in the total number of units, the number of below market rate units required will be recalculated to coincide with the final approved project.

1. Residential Ownership Development. At least twenty percent (20%) of the total units in a residential ownership development shall be below market rate units affordable to low-income households unless an alternative is approved as described in Section 18.16.070.

2. Residential Rental Development. At least fifteen percent (15%) of the total units in a residential rental development shall be below market rate units, of which ten percent (10%) shall be affordable to very low-income households and five percent (5%) affordable to low-income households unless an alternative is approved as described in Section 18.16.070. Projects may alternatively, but are not required to, designate fifteen percent (15%) of the units as affordable to very low-income households in order to maximize the benefits allowed by the State Density Bonus Law, Government Code Section 65915.

B. Calculation. In determining the number of whole below market rate units required, calculations shall be based on the number of dwelling units in the residential development, excluding any units above the otherwise maximum allowable density that are approved pursuant to the State Density Bonus Law, Government Code Section 65915 et seq. Any decimal fraction less than one-half (0.5) shall be rounded down to the nearest whole number, and any decimal fraction of one-half (0.5) or more shall be rounded up to the nearest whole number.

C. In Lieu Fee. Under the circumstances specified in this subsection, the below market rate housing requirements in subsection A of this section may be satisfied by the payment of a fee to the City in lieu of constructing the below market rate units within the residential development.

1. For a residential ownership development of one (1) dwelling unit, or for an addition of one thousand (1,000) square feet or more to an existing dwelling unit that may be sold individually, the builder shall pay an in lieu fee or construct an accessory dwelling unit consistent with Section 18.23.210, Accessory dwelling units/junior accessory dwelling units.

2. For a residential development that creates one (1) additional lot, or two (2) to six (6) rental dwelling units and/or lots, or two (2) to four (4) ownership dwelling units and/or lots, or for a residential development that triggers a decimal fraction of less than one-half (0.5), the builder shall pay an in lieu fee for the fractional unit requirement or build a below market rate unit affordable to a low-income household.

3. The in lieu fee may be established from time to time by resolution of the City Council or may be determined for a specific residential development through the preparation of an affordability gap analysis that will determine the difference between the affordable sales price or rent and the

fair market value for the unit, but in no event shall the in lieu fee exceed the cost of mitigating the impact of market rate units in a residential development on the need for affordable housing in the City.

4. Nothing in this chapter or Chapter 18.17 shall deem or be used to deem the in lieu fee authorized pursuant to this subsection C as an ad hoc exaction or as a mandated fee required as a condition to developing property. Any in lieu fee adopted by the City Council is a menu option that may serve as an alternative to the on-site below market rate housing requirements set forth in this chapter.

D. Below Market Rate Units Eligible for State Density Bonus. If a residential development receives a density bonus pursuant to Government Code Section 65915, any density bonus BMR unit and any dedication of property that made the residential development eligible for the density bonus that also satisfies the requirements of this chapter shall be counted as below market rate units pursuant to this chapter. (Ord. 1583 § 2 (Exh. A), 2022; Ord. 1566 (Exh. B (part)), 2020: Ord. 1550 § 2 (part), 2019: Ord. 1438 § 4 (Exh. A (part)), 2011: Ord. 1416 § 3 (Exh. A (part)), 2010: Ord. 1340 § 1 (part), 2004. Formerly 18.200.040)

### 4.12.3 Thresholds of Significance

Per the CEQA Guidelines, implementation of the GPU would have a significant impact related to population and housing if it would:

a) Induce substantial population unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or

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

### 4.12.4 Impacts and Mitigation Measures

This section describes potential impacts related to population and housing that would result from implementation of the project. The section begins with the thresholds of significance, followed by the impact analysis and identification of mitigation measures, if required.

***Impact POP-1: The project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). (Less Than Significant Impact)***

#### Housing Element Update

Induced population growth may result in impacts if a project induces growth in an area not otherwise planned for growth or in an area that cannot adequately accommodate such growth. Growth may be induced directly by proposals for new residential uses or indirectly by proposals for new roadways, other infrastructure, or employment opportunities.

Implementation of the development projection included in the Housing Element Update would result in the construction of 3,576 units. This amount of development includes the assigned RHNA allocation (2,735 units) as well as an additional 841 units.

The proposed project includes both a rezoning and General Plan text and map amendments to allow for an increased in development within the City. While the Housing Element Update encourages the development of additional housing with the City, the vast majority of new housing would be undertaken by private development. Additionally, it is unrealistic to assume that all inventory sites within the City would be developed at their maximum development potential. Given this, however, the potential development of 3,576 units was evaluated within this EIR.

Using a median household size of 2.57 persons, which was identified in the Housing Element Update, full development of the Housing Element Update would result in a population increase of 9,240 residents. In addition to the unlikely scenario that all inventory sites would be developed to the maximum extent possible, other factors would likely reduce the potential population increase. Additionally, increasing density (units per acre) typically reduces unit size (average number of bedrooms) which can lead to less people per household. One example is that many of the new units, such as ADUs or studio apartments, would generally accommodate one or two residents, which is less than the medial household size of 2.57 people.

Further, the Housing Element Update is intended to accommodate the City's RHNA share determined by ABAG for the 2023-2031 planning period. As such, the population growth associated with the Housing Element Update would not be unplanned as the document includes the identification of inventory sites for future housing development. The population growth would also be consistent with *Plan Bay Area 2050*, a regional plan intended to guide the regional population growth anticipated by 2050, and the project would not induce substantial unplanned population growth. This impact would be considered less than significant impact.

**Environmental Safety and Public Services Element**

The proposed Environmental Safety and Public Services Element contains goals, policies, and implementation programs to reduce the risks associated with environmental hazards. The proposed goals, policies, and programs focus on building the resilience of the community and the built environment against hazards, including geologic and seismic hazards, flooding, wildfire, poor air quality and climate change effects, hazardous materials, and aviation hazards from the San Carlos Airport. Implementation of the Environmental Safety and Public Services Element would not induce unplanned population growth. The potential impact would be considered less than significant.

***Impact POP-2: The project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. (Less Than Significant Impact)***

### Housing Element Update

Some of the housing sites identified in the Housing Element Update currently include residential uses. It is possible that development associated with implementation of the Housing Element could result in displacement of existing residents. However, redevelopment of the sites with existing housing units in most cases results in an increase in on-site housing.

Additionally, the Housing Element Update does include the following policy to preserve housing units:

> *Policy HOU-1.2:* Lower Income Residents Displacement. Minimize potential displacement of existing lower income residents due to increasing housing prices and rents.

Although existing housing units could be displaced as part of a property's redevelopment, displaced units would likely be replaced by higher-density residential development. In addition, the City recently approved a Below Market Rate Housing Ordinance in August 2022 which would result in a net increase of deed restricted affordable housing units. Implementation of the Housing Element Update would result in the net increase of units within the City and would not result in displacement of substantial numbers of population or housing. This would be considered a less than significant impact.

### Environmental Safety and Public Services Element

The proposed Environmental Safety and Public Services Element contains goals, policies, and implementation programs to reduce the risks associated with environmental hazards. The proposed goals, policies, and programs focus on building the resilience of the community and the built environment against hazards, including geologic and seismic hazards, flooding, wildfire, poor air quality and climate change effects, hazardous materials, and aviation hazards from the San Carlos Airport. The Environmental Safety and Public Services Element Update would not result in displacement of substantial numbers of existing people or housing. This potential impact would be considered less than significant.

## 4.12.5 References

Association of Bay Area Governments and the Metropolitan Transportation Commission, 2021. Plan Bay Area 2050, May 26.

City of San Carlos, 2021. Existing Conditions Atlas, San Carlos 2040, January 6.

# 4.13 PUBLIC SERVICES AND RECREATION

This EIR section addresses the project's potential impacts on public services and recreation and suggests mitigation measures, if necessary.

## 4.13.1 Environmental Setting

The following describes the existing public services and recreation setting within the project area.

### Fire Protection

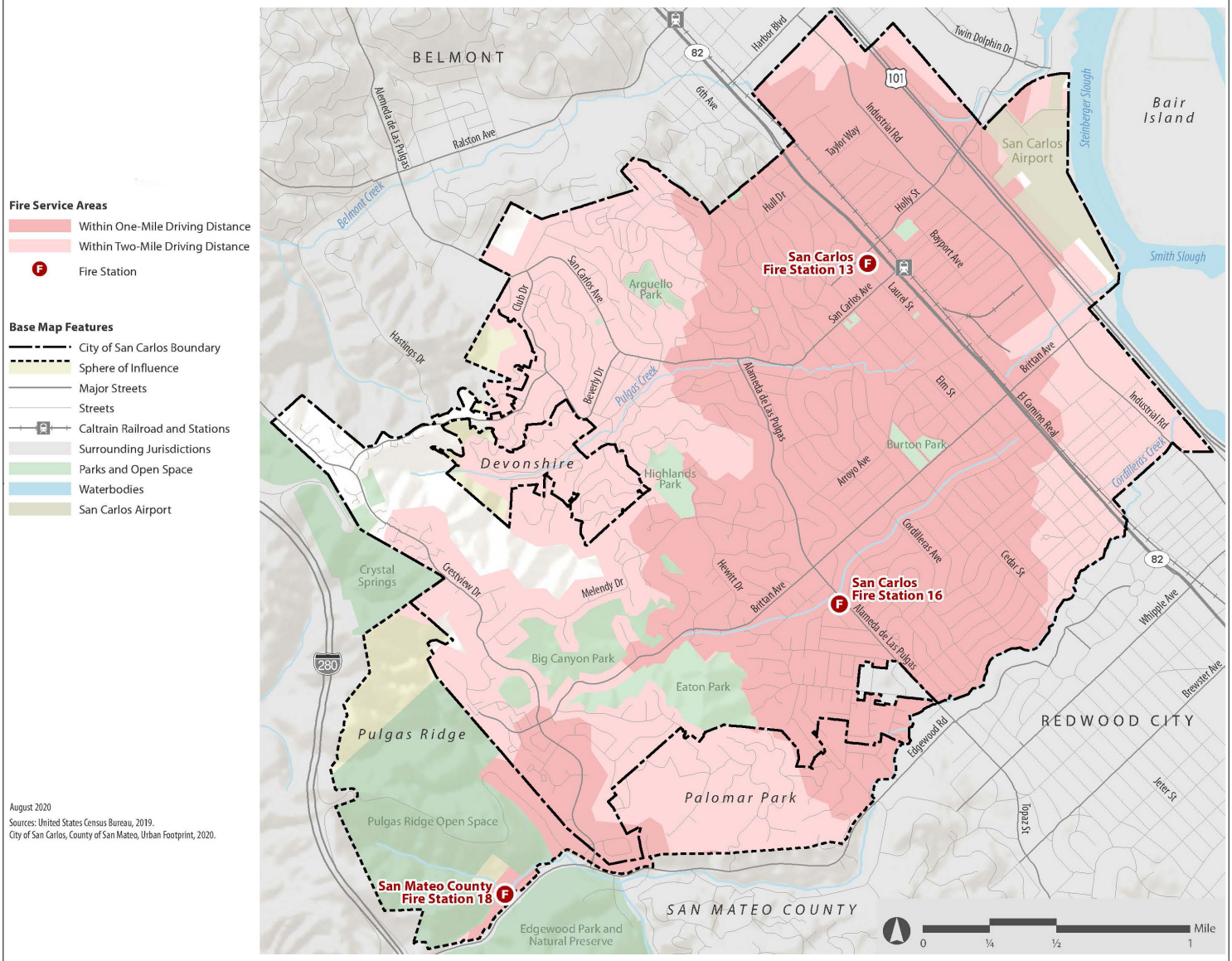
Fire protection services in San Carlos are provided under contract with the Redwood City Fire Department (Fire Department), which provides fire protection, hazardous materials response, disaster preparedness, and emergency medical response. The Fire Department includes seven fire stations housing seven engines, one truck, one battalion chief and over 90 staff members including firefighters, firefighter/paramedics, captains, battalion chiefs, fire prevention staff, training staff, and administrative staff. There are eight firefighter/paramedics on duty (one on each engine and one on the tiller-truck) with a total of 27 firefighter/paramedics working for the department; all paramedics are cross trained as firefighters.

Two fire stations are located within the City of San Carlos. Fire Station 13 is located at 525 Laurel Street in San Carlos. Station 13 is staffed with a captain, a firefighter, and a firefighter/paramedic and houses Engine 13 and Reserve Engine 113. Station 16, located at 1280 Alameda De Las Pulgas, is staffed with a captain, a firefighter and a firefighter/paramedic and houses Engine 16. The Fire Department and the City are currently in the process of development plans to demolish and rebuild Fire Station 16.

Figure 4.13-1 shows the areas within one or two miles of a fire station. As shown in the Figure, most of the City is within two miles of a fire station. The northwestern most point of San Carlos, adjacent to the Devonshire Area, is beyond the one or two-mile driving distance fire service area of all fire stations.

### Police Protection

San Carlos law enforcement services are provided under contract with the San Mateo County Sheriff's Office, located at 600 Elm Street. The Sheriff's Office has over 800 sworn and civilian personnel who provide various law enforcement services to San Mateo County, including contract law enforcement services for San Carlos. Within the San Carlos Bureau, under the direction of the Chief of Police (Sheriff's Captain), police services consists of 30 employees of the San Mateo County Sheriff's Office and four communications officers from the San Mateo County Communications Office. In addition, the full resources of the San Mateo County Sheriff's Office support all aspects of police operations in San Carlos. The employees include one records




Source: MIG, 2022

**Figure 4.13-1** Fire Station Service Area

*Focused General Plan Update*

technician, one management analyst, 10 deputy sheriffs, two K9 deputies, two motor deputies, five sergeants, one captain and eight community services officer.[1]

There are two shifts a day and each shift has one sergeant and three deputies. The City is divided into three beats but deputies respond where needed. A Community Service Officer (CSO) are deployed during the day from 7:00 a.m. to 5:00 p.m. seven days a week.

The goal of Police Services is to successfully prevent and suppress crime, provide timely and effective services to the community, and coordinate important community outreach activities to enhance safety and security. Major services include: Dedicated Traffic Deputies; School Resource Officers; Sheriff's Activities League/Community Policing Unit; Sheriff's Volunteers in Policing (SVIPs); Dispatch; and numerous other Sheriff's Resources.

The following objectives were identified by the Sheriff's Department:

- Objective #1: Respond to emergency and non-emergency calls, initiate activity, write reports, and reserve deputies. These level of service measures are tracked to maintain or increase our efficiency, enhance our level of customer service, and achieve customer service goals.
- Objective #2: Conduct interviews, manage crime scene, collect evidence, and conduct research. These measures are derived from the thoroughness of information gathering, follow-up investigation, and end results that are also monitored for comparison to other agencies throughout California.
- Objective #3: San Mateo County alerts, Press Releases, School Resource Officers, special events, Town Hall meetings, open houses, Neighborhood Watch, and satisfaction surveys. These measures are based on answers to questions posed to individuals who have had varying forms of contact with our staff. The responses to these questions and free form comments received are shared with staff to enhance overall customer service model.
- Objective #4: Community Services Officer (CSO), traffic and parking enforcement, enforcement citations, warnings, traffic direction, directed enforcement, and traffic surveys. With the emerging trend of communities requesting residential parking permit programs, citations and warnings are requested for enforcement. Deputies participating in continuous directed traffic enforcement activities make police presence highly visible and is a contributing factor to the reduction in traffic accidents.
- Objective #5: Ensure safe traffic flow, assist commerce and eliminate them to help with parking availability. Business and residential communities share many parking enforcement concerns. This is another tool that is used to alleviate these issues.

[1] San Mateo County Sheriff Department. 2022. Email communication from Kristina Bell, Police Chief for the City of San Carlos.

Figure 4.13-2 shows the Sheriff's Office Service Area. As shown in the graphic, most of the City is within two miles of the San Carlos Police Bureau. Like the fire service areas, the portion of San Carlos north and west of the Devonshire Area is located beyond the one or two-mile driving distance to the Sheriff's Office service area.

### Schools

Project area residents are served by three public elementary school districts: San Carlos School District, Belmont-Redwood Shores School District, and Redwood City School District. Sequoia Union High School District serves all public high school students in the project area. Information about the school districts and schools serving students within the project area is shown in Table 4.13-1 and elementary school district boundaries are shown in Figure 4.13-3.

Enrollment for the school districts, over the last five school years, is included in Table 4.13-2. As shown in the table, the elementary schools districts have all experienced declining enrollment over the last five years, while Sequoia Union High School District enrollment has remained stable.

### Libraries

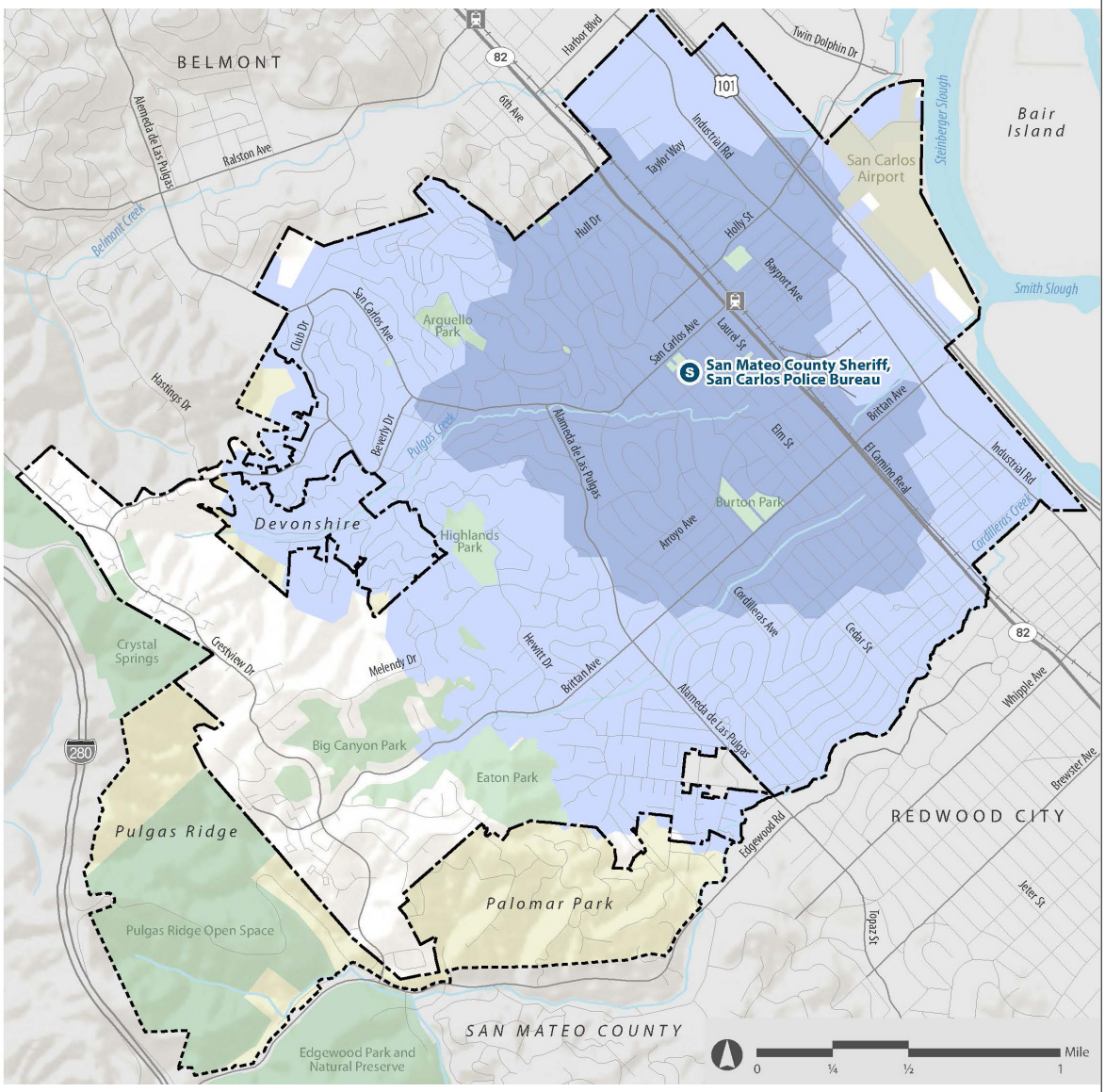
The San Carlos branch of the San Mateo County Library System is located at 610 Elm Street, adjacent to San Carlos City Hall. In addition to book circulation, the library offers child, adult and family programming, as well as computer workstations that are available for public use. The library also has study rooms, virtual meeting spaces, and various types of equipment available for reservation.

As described in the San Mateo County Library System Annual Report, the San Carlos library is one of thirteen branches of the San Mateo County Library System. The library system has a service population of 283,997 residents and over 75 percent of that population has a library card. In 2021, over 1.5 million items materials were circulated, in addition to 1.1 million digital downloads.

Funding for the library comes from the County Library Joint Powers Authority, which is comprised of the cities of Atherton, Belmont, Brisbane, East Palo Alto, Foster City, Half Moon Bay, Millbrae, Pacifica, Portola Valley, San Carlos, and Woodside, as well as unincorporated areas of San Mateo County. San Mateo County provides library staffing and materials, and the individual cities are responsible for the buildings and maintenance.

### Parks and Recreation Facilities

Park and recreation facilities in and around San Carlos include City parks, county and regional parks, open space and trails. Park and recreation facilities within the City are owned and operated by the San Carlos Parks and Recreation Department. Figure 4.13-4 shows the location of parks and open space in the project area. Existing City parks are listed in Table 4.13-3.

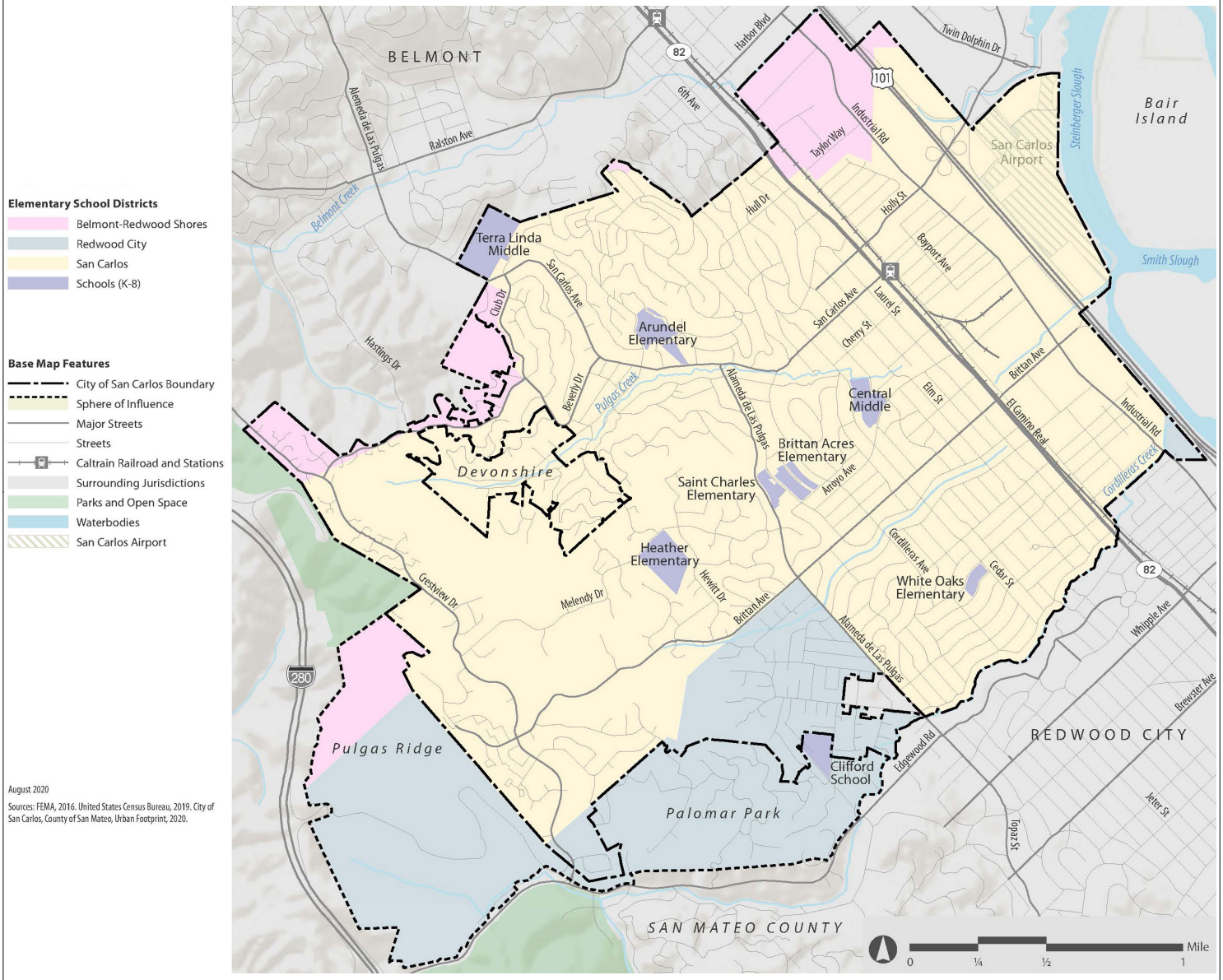



*Source: MIG, 2022*

**Figure 4.13-2** Sheriff Office Service Area

*Focused General Plan Update*

MIG




Source: MIG, 2022

**Figure 4.13-3** Elementary School District Boundaries

*Focused General Plan Update*

| Table 4.13-1: School Districts and Schools Serving Residents Within the Project Area | | | |
|---|---|---|---|
| **District and School** | **Grades** | **2021-2022 Enrollment** | **Total District Enrollment (2021-2022)** |
| **San Carlos School District** | | | **3,003** |
| Arroyo School | 4-5 | 279 | |
| Arundel School | K-3 | 353 | |
| Brittan Acres School | K-3 | 321 | |
| Central Middle School | 6-8 | 416 | |
| Heather School | K-3 | 266 | |
| Mariposa School | 4-5 | 304 | |
| San Carlos Charter Learning Center | K-8 | 370 | |
| Tierra Linda Middle School | 6-8 | 445 | |
| White Oaks School | K-3 | 244 | |
| **Belmont-Redwood Shores School District** | | | **3,967** |
| Central Elementary | K-5 | 436 | |
| Cipriani Elementary | K-5 | 463 | |
| Fox Elementary | K-5 | 423 | |
| Redwood Shore Elementary | K-5 | 358 | |
| Nesbit Elementary | K-8 | 596 | |
| Sandpiper Elementary | K-8 | 575 | |
| Ralston Middle | 6-8 | 1,113 | |
| **Redwood City School District** | | | **7,669** |
| Clifford Elementary | K-8 | 658 | |
| McKinley Institute of Technology | 6-8 | 287 | |
| North Star Academy | 3-8 | 511 | |
| Orion Alternative | K-5 | 386 | |
| **Sequoia Union High School District** | | | **10,032** |
| Sequoia High School | 9-12 | 1,945 | |
| Redwood High School | 9-12 | 218 | |
| Carlmont High School | 9-12 | 2,302 | |
| Source: California Department of Education, DataQuest Home, Enrollment Report, 2021-2022. | | | |

**Table 4.13-2 School District Enrollment between 2017-2022**

| School District | District Enrollment (Students) | | | | | |
|---|---|---|---|---|---|---|
| | 2017-2018 | 2018-2019 | 2019-2020 | 2020-2021 | 2021-2022 | Difference between 2017-2022 |
| **San Carlos** | 3,549 | 3,445 | 3,405 | 3,265 | 3,003 | -546 |
| **Belmont-Redwood Shores** | 4,324 | 4,308 | 4,314 | 4,152 | 3,967 | -357 |
| **Redwood City** | 8,803 | 8,725 | 8,530 | 8,086 | 7,669 | -1,134 |
| **Sequoia Union** | 10,021 | 10,246 | 10,238 | 10,327 | 10,032 | +11 |

Source: California Department of Education, DataQuest Home, Enrollment Report, 2021-2022.

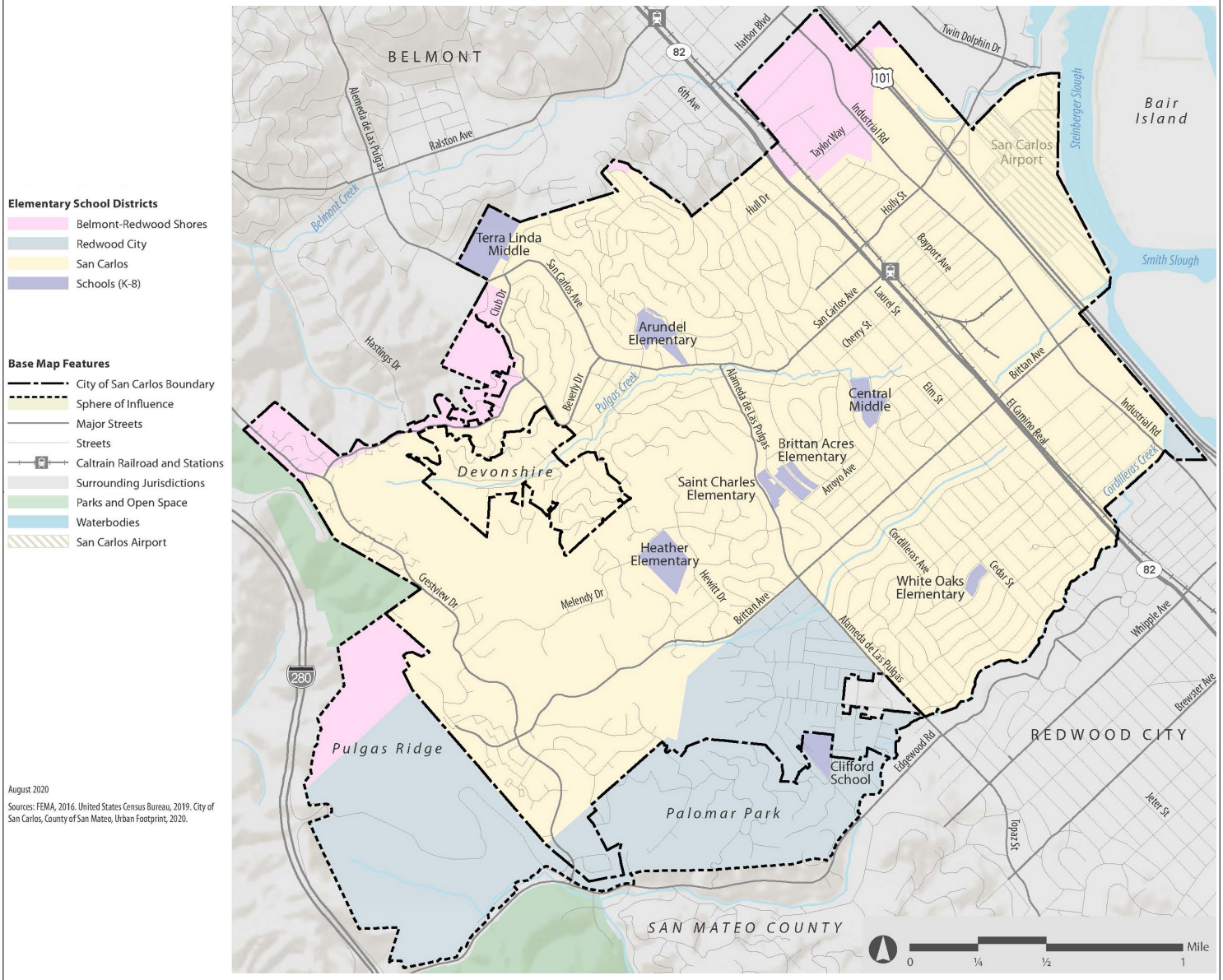
Recreational Programs

A variety of programs for youth and adults are organized through the Parks and Recreation Department. The Department runs the San Carlos Youth Center at 1001 Chestnut Street, at the edge of Burton Park, which is open to pre-teens and young teens on weekdays from 3:00 p.m. to 6:00 p.m. and on school breaks from 10:00 a.m. to 4:00 p.m. In 2021 the City offered 112 sport camps and 165 sport classes serving 1,288 youth and 120 adult participants.

Open Space

San Carlos residents have access to a variety of open space areas in and around the city. These open space areas provide passive recreation facilities, including trails, views, natural vegetation, wildlife, and environmental education facilities. Open space in San Carlos includes all land designated as open space in the General Plan, including Big Canyon Park and Eaton Park. Open space land controlled by the City is mostly unimproved or in its natural state. Other open space areas around the city are owned and operated by the Midpeninsula Regional Open Space District (MROSD), San Mateo County and the State Department of Fish and Game.

MROSD manages 26 open space preserves totaling over 65,000 acres. The three closest MROSD preserves are Pulgas Ridge, Purisima Creek Redwoods and Teague Hill, with Pulgas Ridge Open Space Preserve located within San Carlos' SOI. San Mateo County manages five regional parks. The largest is the 467-acre Edgewood Preserve, located immediately south of San Carlos, across Edgewood Road. The State Department of Fish and Game runs Bair Island, a 3,000-acre Ecological Preserve within the Don Edwards National Wildlife Refuge, located adjacent to San Carlos in the wetlands of San Francisco Bay.




Source: MIG, 2022

**Figure 4.13-4** Existing Parks and Recreational Facilities

*Focused General Plan Update*

MIG

| Table 4.13-3 City Parks | | |
|---|---|---|
| **Park Name** | **Acreage** | **Description** |
| Arguello Park | 21.0 | Arguello Park is the largest and most diverse of the developed parks, with a natural grass turf field, picnic areas, running trail and unmarked hiking trails. |
| Big Canyon Park | 16.0 | Big Canyon Park is a rustic open space area. The over 2-mile trail in the park is rugged, hilly and narrow with views of the city and the East Bay. |
| Burton Park | 10.3 | Burton Park includes Madsen baseball and softball diamond (used by adult softball leagues, little leagues, and other baseball teams), a large soccer field, three lighted tennis courts, two full basketball courts, three bocce courts, outdoor stage, two corn hole boards, two children's playground areas, park benches, picnic areas, and a turfed play area. Recent improvements include new and renovated restroom facilities (2018) and new lighting, and a scoreboard were recently installed at Madsen Field (softball). New lighting was installed at Flanagan Field in August 2022. City events hosted at Burton Park include the Music in the Park concert series, community movie nights, Hometown Days and San Carlos Pride: Pride in the Park at Burton Park to celebrate diversity and the LGBTQ community. |
| Cedar Park | 0.6 | Cedar Park has a small turf area, children's play area, asphalt basketball court/multi-use section, park benches, picnic table and barbecue pit. |
| Chilton Park | 1.6 | Chilton Park was renovated in 2020 with improved trails, gathering area, kids play area and improved stair entrance from Bayview. There are views of the canyon and surrounding area from the western boundary and views of San Carlos and the East Bay from the middle of the property. Children enjoy climbing on a major rock outcropping located on the slope leading down to Bay View. Recent park improvements include benches, play area equipment, walkway/stair improvements, new water fountain, fencing, and signage. |
| City Hall Park | 1.3 | City Hall Park is centrally located in the downtown area. In 2016, City Hall Park was renovated to provide an off-leash dog park for the community. In 2017, local youth built and installed three agility play pieces for the dogs. |
| Crestview Park | 7.0 | Crestview Park is frequently used by soccer players, neighboring families, and jogging and walking enthusiasts. The park facilities include a soccer field, basketball courts, sport court, children's playground area, and a jogging/walking path. The park was recently renovated to update restrooms. |
| Eaton Park | 57.6 | Eaton Park is a natural open space with meandering trails, natural vegetation and varied wildlife. It is undeveloped except for a trail, which winds its way up the hillside toward Loma Road. A fire access road winds its way to the top of the park as well. |
| Frank D. Harrington Park (formerly Laurel Street Park) | 0.3 | The park is utilized by shoppers as a resting spot and by customers of adjacent restaurants. The park is used annually for a portion of the Art and Wine Festival, informal concerts, and recently installed chess tables. |
| Heather Dog Exercise Area | 1.5 | The park is used by dog owners and their pets. There is also a trail in the southern part of the park with a view through the canyon. |
| Highlands Park | 11.2 | The complex is used for year-round athletic events, including baseball, soccer, softball, tennis and sports camps, as well as for neighborhood recreational activities including a children's play area. Highlands Park was renovated in 2018 with new restrooms with increased capacities, expanded play area, new climbing play features, new ADA compliant path to the Stadium Field and improved entry into the park. Tennis courts were resurfaced in 2022 and pickleball striping was added to two of the five courts. Stadium field lighting was added in 2022. |

| Table 4.13-3 City Parks | | |
|---|---|---|
| **Park Name** | **Acreage** | **Description** |
| Hillcrest Circle Park | 0.2 | The park contains a children's play area, half-court basketball court, picnic bench, barbecue pit and drinking fountain. The park attracts neighborhood youth that frequent the play areas, the basketball court and other “free play” sections of the asphalt. |
| Laureola Park | 2.6 | This neighborhood park gets a variety of users throughout the year. Little League baseball uses the field area in the spring, and the American Youth Soccer Organization (AYSO) makes use of the entire turf area in the fall. In addition, residents utilize the turf, basketball court and the children's play area regularly. |
| North Crestview Park | 4.3 | This open space park provides expansive views across San Carlos to the East Bay Hills and west to the Santa Cruz Mountains. The park contains a short trail leading up the slope to viewpoints; however, no trail amenities exist except for waste receptacles at the park entrances. A Master Plan was completed in 2018 and identified passive use improvements to the park such as improved trails, a Service Dog Memorial, benches, meadow, picnic tables and new trees. |
| San Carlos Avenue Neighborhood Park | 0.3 | The park primarily attracts neighborhood children and adult chaperones. It currently contains a swing set, park benches, barbecue pit, small turf area, drinking fountain and climbing apparatus. |
| Vista Park | 3.8 | Vista Park, landscaped with native vegetation, has walking paths, park benches, trash receptacles, and picnic tables. The park has views to the east. It is presently used by local resident walkers, pet owners and passive users. |
| **Total** | **139.6** | |

Trails

Arguello, Highlands, Big Canyon, Eaton, and Heather Dog Area are the five city parks with hiking trails within the city limit. Among these parks, the City owns and maintains 10.66 miles of recreational trails. The longest trail within San Carlos' trail system is the Eaton-Big Canyon Trail, which runs through both Eaton and Big Canyon Parks and connects the two parks together. The City does not maintain equestrian facilities or mountain biking trails at this time. Information on pathways through the city for bicycling and jogging are discussed in Circulation and Transportation section of this EIR.

Planned Facilities

The Master Plan for Parks, Open Space, Buildings and other Recreational Facilities plans for new parks and improvements to existing parks, which were expected to be implemented over a 12-year period. The Master Plan identifies improvements for each existing park in San Carlos, including park buildings, open space and recreational facilities. The acquisition of new parkland has been considered for east of El Camino Real, Devonshire Canyon (in the San Carlos SOI), and the civic center area. Additionally, an off-leash dog exercise area, a skate park, and a sports complex have been considered.

The City also has plans to expand the system of public trails. In February 2007, the City Council approved a Trails Connections Plan that identified 14 possible new connections to existing trails in San Carlos and surrounding areas. Of the 14 connections, six connect trails within San Carlos and the remaining eight are regional connections. The first priority trails, as identified in the Trails Connection Plan, are scheduled to be implemented before the second priority trails. In addition to implementing the Trails Connections Plan, the City's planned improvements to the trail system include extending existing trails and improving soil erosion and trail drainage issues.

In 2012 the City Council approved a Hillside Trails Plan that identified 1.62 miles of new trails within Big Canyon Park, Eaton Park, and Devonshire Canyon. The Big Canyon Park and Eaton Park trail improvements were completed and add a combined 0.86 miles to the City's trail system.

Parks Deficiencies

In order to meet its parks provision standard of 2.5 acres per 1,000 residents, the City must acquire land to expand existing parks and to develop new City parks. In 2020, the City had 62.5 acres of existing traditional developed parkland.

Based on the estimated 2020 population of 30,145 people, the City currently provides 2.07 acres of developed/active parks for every 1,000 residents. In order to meet the required 2.5 acres of developed/active parks per 1,000 residents, the City would have to provide an additional 12.9 acres of parks. Although most residential areas are located within walking distance of a local park, the City does not fully meet its walkability policy standard. The White Oaks and Eaton neighborhoods do not contain any public parks and, consequently, the southern portion of the White Oaks

neighborhood and the southern and eastern portions of the Eaton neighborhood are not within a ½-mile of a public park. Therefore, the City would need additional park acres in these neighborhoods to fulfill its service standard.

The City does not currently meet its standard of one mile of hiking trail per 1,000 residents. To do so, the City would need a total of 30 miles of trails (at the City's current population). Additional trail miles would be provided with implementation of the Council-approved Trail Connections Plan and identified during development of the upcoming Open Space Management Plan. According to the City's Master Plan for Parks, Open Space, Buildings and other Recreational Facilities, the City will develop the Open Space Management Plan between 2008 and 2012. The Open Space Management Plan was listed as an unfunded item in the 2009-10 CIP budget request as the City's previous economic forecast precluded it from funding at the time (San Carlos 2009). Currently there is no update on the Master Plan for parks and an Open Space Management plan is not yet created.

### 4.13.2 Regulatory Setting

#### Federal

Standardized Emergency Management System and National Incident Management System (SEMS)

According to the State's SEMS, local agencies have primary authority regarding rescue and treatment of casualties and making decisions regarding protective actions for the community. When a major incident occurs, the first few moments are critical in terms of reducing loss of life and property. First responders must be sufficiently trained to understand the nature and the gravity of the event to minimize the confusion that inevitably follows catastrophic situations. This on-scene authority rests with the local emergency services organization and the incident commander. Additional information regarding the City's SEMS program can be found in Section 4.9 Hazards and Hazardous Waste.

#### State

California Building Code

The 2019 California Building Code (CBC) became effective January 1, 2020, including Part 9 of Title 24, the California Fire Code. Section 701A.3.2 of the CBC requires that new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas, any Local Agency Very High Fire Hazard Severity Zone, or any Wildland-Urban Interface Fire Area designated by the enforcing agency for which an application for a building permit is submitted, comply with all sections of the chapter.

This code establishes State fire regulations, including regulations for building standards (also set forth in the CBC), fire protection and notification systems, fire protection devices such as

extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

California Fire Code

The City of San Carlos has adopted the 2019 California Fire Code, with amendments to address specific local conditions and needs. The local amendments include, but are not limited to, codifying requirements for car stackers and car puzzler systems, defining what constitutes a high rise structure, and outlining prohibitions regarding "safe and sane" fireworks. Additionally, the proposed ordinance includes changes to the compliance requirements for the Very High Fire Hazard Severity Zone Map, changes to fire hydrant specifications, and changes to emergency responder radio coverage system requirements.

Education Code Section 17620

The Code allows school districts to assess fees on new residential and commercial construction within their respective boundaries. These fees can be collected without special city or county approval, to fund the construction of new school facilities necessitated by the impact of residential and commercial development activity. In addition, these fees can also be used to fund the reconstruction of school facilities or reopening schools to accommodate development-related enrollment growth. Fees are collected immediately prior to the time of the issuance of a building permit by the City or the County.

Leroy F. Green School Facilities Act (1998)

California Government Code Section 65995 sets base limits and additional provisions for school districts to levy development impact fees and to help fund expanded facilities to house new pupils that may be generated by the development project. Sections 65996(a) and (b) state that such fees collected by school districts provide full and complete school facilities mitigation under CEQA. These fees may be adjusted by the school district.

Quimby Act

Since the passage of the 1975 Quimby Act (California Government Code §66477), cities and counties have been authorized to pass ordinances requiring that developers set aside land, donate conservation easements or pay fees for park improvements. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities. A 1982 amendment (AB 1600) requires agencies to clearly show a reasonable relationship between the public need for the recreation facility or park land and the type of development project upon which the fee is imposed. A 2013 amendment (AB1359) allows cities and counties to use developer paid Quimby Act fees to provide parks in neighborhoods other than the one in which the developer's subdivision is located. Previously, a city or county could only use the fees to provide parks that served the developer's proposed subdivision. AB 1359 lifted this limitation if certain requirements are met including:

1. The neighborhood where the city or county is proposing to use the fees to provide parks must have fewer than three acres of park area per 1,000 members.

2. The neighborhood where the proposed subdivision is located must have at least three acres of park area or more per 1,000 members.

3. The city or county must hold a public hearing before using the fees in another neighborhood.

4. The city or county must find it reasonably foreseeable that the new subdivision's residents will use the park facilities in the other neighborhood.

5. And finally, the city or county must use the fees in areas consistent with the city or county's local Quimby Act ordinance and General Plan.

AB 1359 also allows a city or county to enter into a joint or shared use agreement with one or more public districts in order to provide additional park and recreational access.

The Quimby Act sets a standard park space to population ratio of up to 3 acres of park space per 1,000 persons. Cities with a ratio of higher than three acres per 1,000 persons can set a standard of up to 5 acres per 1,000 persons for new development. The calculation of a City's park space to population ratio is based on a comparison of the population count of the last federal census to the amount of City-owned parkland. The City of San Carlos has a Quimby Act ordinance in place and uses the fees for improvements to serve new developments (Municipal Code Chapter 3.34).

**Local**

Park Land Dedication In-Lieu Fee

Park In-Lieu Fees are assessed pursuant to the Quimby Act under Government Code Section 66447. Under the Quimby Act, local governments may require the dedication of land for parks or the payment of fees in-lieu of land dedication as a condition of subdivision map approval. The Park Land Dedication In-Lieu Fee is collected and expended to purchase land, buy equipment, or construct improvements in neighborhood parks and recreation facilities serving such subdivisions.

Park Facility Development Fee

Park Facility Development Fees are assessed pursuant to Law of the City of San Carlos (Ord. 1007 § 1 (part), 1988) per Municipal Code section 3.34. The fee is used for the acquisition, development, renovation, and replacement of parks and recreational areas and their development, including equipment for recreational purposes.

Master Plan for Parks, Open Space, Buildings and other Recreational Facilities

Local regulations for parks and recreational facilities are contained within the Master Plan for Parks, Open Space, Buildings and other Recreational Facilities, which was adopted in August

2008. The purpose of the Plan is to provide the City with a long-term vision for its park system. The Plan addresses the City's park service standards, including park acres per capita, walking distance to park facilities, ideas for new parks, and improvements to existing parks. The Master Plan assumed a population of 34,264 in 2030, which is approximately 1,960 more people than the Draft 2030 General Plan assumed would reside in San Carlos in 2030. Using this rate of population growth, in addition to other factors, the Plan identified the following needs by 2025:

- Expand hiking trails system
- New community swimming pool/aquatic center
- New performing Arts Center
- Additional athletic fields
- New community center/community gathering space
- Indoor gymnasium space for all ages
- New dog park
- New outdoor skate park
- Playground upgrades
- Improvements and upgrades to existing parks

Since 2009, the City has expanded the trail system in Eaton and Big Canyon parks, added night lighting to existing athletic fields to increase availability, opened a new dog park in an existing park and made upgrades to existing playgrounds and improvements to the following parks: Burton, Chilton, Crestview, Highlands, Laureola parks**.**

The implementation strategy prioritizes and schedules park system improvements, and discusses funding for capital improvements, ongoing operation costs and maintenance. The following service standards are discussed in the Plan:

- Parks Provision Standard. Provide 2.5 acres of developed/active parks for every 1,000 residents in San Carlos. This service standard is stated as P1.1 of the Parks and Recreation Element of the General Plan.
- Trails Provision Standard. Provide 1-mile of hiking trail per 1,000 residents.
- Walkability Policy. Locate a park or recreational facility within ½-mile of every resident. Policy PR-1.2 of the Parks and Recreation Element reaffirms this goal.

<u>City of San Carlos General Plan</u>

The 2009 General Plan includes the following applicable policies:

School Services

*Policy CSS-7.1:* Provide efficient and timely processing of development review and building permit applications, while maintaining quality standards in accordance with City Ordinances. Look for solutions to problems, be responsive to community concerns, promote positive

communications at all levels of review and provide analysis and advice to decisionmakers to help them make informed decisions. Encourage early public input.

*Policy CSS-7.2:* Establish and regularly monitor levels of service of San Carlos' public facilities and services.

*Policy CSS-7.4:* Work with all special districts, including the school districts, to ensure that development within the city is coordinated with provision of services.

*Policy CSS-7.5:* Maintain neighborhood schools wherever possible. Evaluate City potential to acquire any surplus school sites. If redeveloped, sites shall be used for purposes which are compatible with the surrounding neighborhood and consistent with the General Plan Land Use Map and shall strive to retain school recreation facilities for neighborhood use.

*Policy CSS-7.8:* Approve rezoning and development permits only when adequate services are available, or when a program to provide services has been approved by the applicable district and the City.

*Policy CSS-7.9*: Ensure that adequate public services and facilities are planned and constructed to accommodate the population of the city.

*Policy CSS-8.1:* Support schools and educational institutions as a key component of San Carlos' identity.

*Policy CSS-8.2:* Support the availability of all types of educational opportunities, both formal and informal, for residents of all ages and abilities.

*Policy CSS-8.4:* Evaluate through the California Environmental Quality Act (CEQA) process how new development impacts schools, as the quality of San Carlos schools is a primary asset of the city.

*Policy CSS-8.5:* Participate in the long-range planning activities with San Carlos Unified School District and Sequoia Union High School District.

*Library Services*

*Policy CSS-7.2:* Establish and regularly monitor levels of service of San Carlos' public facilities and services.

*Policy CSS-7.6:* Maintain existing library facilities as an important activity center within the community.

*Policy CSS-8.3:* Ensure that all residents have access to library services including access to computers and other technology.

*Parks and Recreation Facilities*

*Policy LU-1.9:* To the extent possible, retain the channels, floodplains, riparian corridors (including suitable setbacks from top of bank) and closely associated upland areas of Cordilleras, Brittan and Pulgas Creeks and their tributaries as significant open space areas. These areas should be maintained in their natural state to function as appropriate open space areas, greenbelt and to support a riparian habitat.

*Policy LU-1.11:* Preserve existing open space by supporting urban infill.

*Policy LU-1.12:* Promote the development of publicly accessible urban trails throughout the city to provide access to the natural environment and facilitate non-motorized transportation options.

*Policy LU-2.15:* Provide for and encourage the development of parks and public gathering places in and near Downtown.

*Policy LU-5.11:* Continue to require developers to pay their fair share of the capital cost of public facilities through appropriate development impact and utility connection fees.

*Policy LU-8.7:* Require new residential development to provide outdoor areas and landscaping or native vegetation, or tree canopy to enhance the surroundings.

*Policy LU-9.7:* Encourage the development of community gardens to provide opportunity for interactions and increase residents' access to healthy foods.

*Policy LU-9.8:* Encourage developers of new or expanded multi-family residential projects to include gardening spaces for residents of the development as part of the landscaping requirement.

*Policy LU-9.16:* Require a contribution of parkland and/or fees in-lieu of land dedication as a condition of approval of all new residential subdivisions.

*Policy LU-9.18:* Continue the City's program of joint use of school recreation facilities as a means of providing adequate recreation space for San Carlos citizens.

*Policy LU-9.19:* As lands are subdivided, encourage dedication of trail and path easements where appropriate to expand the City and County's trail and path system.

*Policy CSH-7.7:* Public trails should be located and designed so that they serve the needs of the public while minimizing private property impacts.

*Policy CSH-7.8:* The local public path and trail system should be linked with existing private and regional systems and the road system.

*Policy EM-2.7:* Retain Pulgas, Brittan, Cordilleras and Belmont Creek channels and their 100-year floodplains wherever possible as natural open space areas. These areas are to function as storm drainage facilities and as open space greenbelts to support natural habitat.

*Policy EM-4.1:* Retain existing public open space as open space.

*Policy EM-4.2:* Support an open space system that is diverse in uses and opportunities and includes natural function/wildlife habitat as well as passive and appropriate active recreation.

*Policy EM-4.3:* Focus open space acquisition efforts on the most environmentally sensitive areas.

*Policy EM-4.4:* Coordinate with Midpeninsula Regional Open Space District and other agencies on planning and managing public open space, including management of the Pulgas Ridge Open Space Preserve for public open space use.

*Policy EM-4.5:* Support the efforts of non-profit organizations to expand and manage protected open space.

*Policy EM-4.6:* Establish public access to public open space lands appropriate to the character and conservation value of the open space.

*Policy EM-4.7:* Prohibit the sale of City-owned open space properties.

*Policy PR-1.1:* Actively pursue land acquisitions to provide additional recreational opportunities, especially in underserved areas, which will help the City achieve the goal of increased park land.

*Policy PR-1.2:* Maintain a balance of athletic fields, active parks and passive open space that supports a variety of recreational uses.

*Policy PR-2.3:* Continue to support implementation of trail connections as identified in the City's Master Plan for Parks, Open Space, Buildings and other Recreation Facilities.

*Policy PR-2.4:* Continue to maintain City-owned open space trails and connections to regional trails.

*Policy PR-2.5:* Promote the development of publicly accessible urban trails throughout the city to provide access to the natural environment and facilitate non-motorized transportation options.

*Policy PR-2.6:* Complete the Bay Trail alignment in San Carlos.

*Policy PR-2.7:* Encourage new development to provide trails and trail connection easements or dedications where feasible and appropriate.

*Policy PR-2.10:* Improve the availability and quality of athletic fields in San Carlos.

*Policy PR-3.5:* Ensure that parks facilities and usage will only be expanded with a commensurate expansion in maintenance resources, including future staff and equipment.

*Policy PR-3.6:* Partner with adjacent agencies including San Mateo County, Belmont Parks and Recreation, San Francisco Public Utilities Commission and the Midpeninsula Regional Open Space District to provide expanded parks and open space amenities for San Carlos residents.

### 4.13.3 Thresholds of Significance

The project would have a significant impact with regard to parks and recreation if it would:

A. Results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

   1. Fire protection;
   2. Police protection;
   3. Schools;
   4. Libraries; or
   5. Parks and Recreation Facilities.

B. Result in increased use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

C. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

### 4.13.4 Impacts and Mitigation Measures

This section describes potential impacts related to public services and recreational facilities that would result from implementation of the project. The section begins with the thresholds of significance, followed by the impact analysis and identification of mitigation measures, if required.

***Impact PS-1: The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services. (Less Than Significant Impact)***

## Fire Protection Services

Implementation of the Focused GPU is estimated to result in an increase of approximately 3,576 dwelling units within the project area. This increase in development is likely to result in an increase in demand for fire protection services.

The proposed Environmental Safety and Community Services Element Update includes the following policies and actions related to fire protection services:

*Policy ESPS 3.1:* Promote and improve, as necessary, interjurisdictional consultation and communication regarding disaster or emergency plans of San Carlos with adjacent agencies including but not limited to San Mateo County, Redwood City, Belmont, and CAL FIRE.

*Action ESPS 3.1* - Maintain participation in the Joint Powers Authority Agreement with all fire departments in San Mateo County to ensure required response times for initial emergency deployment personnel and equipment.

*Action ESPS 3.2* - Preserve the local government agreement with California Department of Forestry and Fire Protection (CAL FIRE) for responses in the Mutual Threat Zone (MTZ) within the Wildland Urban Interface (WUI) areas of the city. Continue to provide equipment and personnel under the mutual aid agreement, with the State of California Office of Emergency Service (OES) Region II. This continued "reverse support" enables the City of San Carlos to receive "no cost" statewide mutual aid in the event of a declared large-scale emergency.

*Action ESPS 3.3* - Collaborate with the regional fire agencies on strategies available to maintain defensible space, diverse plant composition (e.g., less combustible native plants), undertake appropriate thinning of vegetation, and maintain fuel breaks without permanently damaging native habitat.

*Policy ESPS-3.2* - Conduct annual training for fire, emergency medical, and police staff including cross training with adjacent automatic or mutual aid emergency response departments. Regularly maintain, test, and update training and equipment to meet current standards.

*Policy ESPS-3.3* - Ensure adequate Fire Department resources (fire stations, personnel, and equipment) to meet response time standards, keep pace with growth, and provide a high level of service to the community.

*Action ESPS-3.4* - Continue to work with the Redwood City Fire Department to ensure that fire services are maintained at adequate levels. With subsequent Safety Element updates, assess and project future emergency service needs. Continue to monitor service area to ensure that all San Carlos areas have fire service. Monitor the City of San Carlos' fire protection rating and work with the Redwood City and San Mateo County Fire Departments to correct deficiencies and to ensure ongoing training, including cross training is conducted.

*Action ESPS-3.5* - Train and educate public volunteers in basic fire safety response.

*Policy ESPS-7.9:* Evaluate safety service limitations on an annual basis to provide for adequate levels of service.

*Policy ESPS-7.10:* Identify potential emergency routes and suggest methods for operational needs for first responders.

*Policy ESPS-7.11:* Establish the capability to re-locate critical emergency response facilities such as fire, police, and essential services facilities, if needed, in areas that minimize their exposure to flooding, seismic effects, fire, or explosion.

*Policy ESPS-8.5:* Support emergency service providers and critical facilities' operations and adequate response times should hazard events increase in frequency and severity.

*Policy ESPS-13.2:* Establish and regularly monitor levels of service of San Carlos' public facilities and services.

*Policy ESPS-13.4:* Work with all special districts, including the school districts, to ensure that development within the city is coordinated with provision of services.

*Policy ESPS-13.8:* Approve rezoning and development permits only when adequate services are available, or when a program to provide services has been approved by the applicable district and the City.

*Policy ESPS-13.9:* Ensure that adequate public services and facilities are planned and constructed to accommodate the population of the city.

Individual development projects are subject to standard pre-development review by several City departments, including the Fire Departments. This review process ensures that the necessary and appropriate ingress/egress points, fire protection systems such as alarms and automatic sprinklers, and minimum fire flow requirements are incorporated into all project plans.

Furthermore, the Environmental Safety and Community Services Element Update includes policies related to fire protection and emergency services. Several of these policies specifically address ensuring that there is adequate fire department resources to serve existing and proposed development, including evaluating safety service limits annually (Policy ESPS-7.9), monitoring levels of service for public facilities and services (Policy ESPS-13.2), and approving rezoning and development permits only if adequate services are available to serve the City (Policy ESPS-13.8 and ESPS-13.9)

Future development projects associated with implementation of the Housing Element Update would result in the incremental increase in need for fire protection services as the City's population grows and the number of residential units increases. While the Fire Department does not have an adopted service standard, it is currently preparing a Standards of Cover Study. It is anticipated that

the Fire Department would need an additional ladder truck and additional personnel staffing located at San Carlos Station 13 to address the increase in demand.[2]

If a new or expanded fire department facilities were to be required as a result of population growth, this new facility would need to comply with existing environmental regulations, which would include a development review process and environmental review pursuant to CEQA.

In compliance with Policy ESPS-7.9 (evaluate safety service limitations on an annual basis to provide for adequate levels of service), the City Council would annually consider the need for increases in fire equipment, facilities, or personnel. As part of this review, the City Council would receive for consideration the evaluation and recommendation of the Fire Department for providing additional equipment, facilities, or personnel, including the timing for providing such equipment, facilities, or personnel. Criteria for determining need would include, but not be limited to, existing and projected increases of fire station response times for new development within the City, emergency calls, ratio of fire department staff to population, or the capacity of existing fire stations to house additional staff and equipment needed to serve existing and projected population. If the City Council finds that additional equipment, facilities or personnel are needed, the City would coordinate with the fire department to provide for such facilities, equipment, or personnel in a manner timely to ensure existing service levels, including response times, are not impacted.

All projects that are subject to CEQA review would be evaluated to determine whether they can be provided adequate fire prevention and emergency medical services, including adequate response times. In the event that it is determined that adequate services cannot be provided, project specific mitigation may be provided to offset identified service deficiencies.

Compliance with the policies described above would ensure that adequate Fire Department equipment and staffing would be available to serve future development associated with implementation of the Housing Element Update and would ensure this potential impact would be less than significant.

**Police Services**

Implementation of the Focused GPU is estimated to result in an increase of approximately 3,595 dwelling units within the project area. This increase in development is likely to result in an increase in demand for policing services.

The Environmental Safety and Community Services Element Update includes the following goals and policies relate to police protection services:

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[2] Redwood City and San Carlos Fire Departments, 2022. Email communication from Gareth Harris, Fire Marshal, August 16.

*Policy ESPS 3.1:* Promote and improve, as necessary, interjurisdictional consultation and communication regarding disaster or emergency plans of San Carlos with adjacent agencies including but not limited to San Mateo County, Redwood City, Belmont, and CAL FIRE.

*Policy ESPS-7.9*: Evaluate safety service limitations on an annual basis to provide for adequate levels of service.

*Policy ESPS-7.10:* Identify potential emergency routes and suggest methods for operational needs for first responders.

*Policy ESPS-7.11:* Establish the capability to re-locate critical emergency response facilities such as fire, police, and essential services facilities, if needed, in areas that minimize their exposure to flooding, seismic effects, fire, or explosion.

*Policy ESPS-8.5:* Support emergency service providers and critical facilities' operations and adequate response times should hazard events increase in frequency and severity.

*Policy ESPS-13.2:* Establish and regularly monitor levels of service of San Carlos' public facilities and services.

*Policy ESPS-13.4:* Work with all special districts, including the school districts, to ensure that development within the city is coordinated with provision of services.

*Policy ESPS-13.8:* Approve rezoning and development permits only when adequate services are available, or when a program to provide services has been approved by the applicable district and the City.

*Policy ESPS-13.9:* Ensure that adequate public services and facilities are planned and constructed to accommodate the population of the city.

Several of these policies specifically address ensuring that there is adequate law enforcement resources to serve existing and proposed development, including evaluating safety service limits annually (Policy ESPS-7.9), monitoring levels of service for public facilities and services (Policy ESPS-13.2), and approving rezoning and development permits only if adequate services are available to serve the city (Policy ESPS-13.8 and ESPS-13.9).

Future development projects associated with implementation of the Housing Element Update would result in the incremental increase in need for law enforcement services as the City's population grows and the number of residential units increases. The Department is anticipating upgrading headquarter office space within the next few years. The Department is currently meeting service standards, but additional development could result in an incremental increase in police service demand and increased response time. It is also possible that increased development would

result in an increase in traffic; additional police cars would potentially be needed to effectively enforce traffic laws.[3]

Compliance by the City with the proposed Policies ESPS-13.8 and ESPS-13.9, which require the availability of adequate public services before approval of new development, would ensure that new or expanded police facilities would be constructed to meet the needs of the new population growth. In addition, if a new or expanded facility were to be required as a result of population growth, this new facility would need to comply with existing environmental regulations, which would include a development review process and environmental review pursuant to CEQA. As such, the Focused GPU would not result in substantial adverse physical impacts associated with the provision of new or physically altered facilities; this impact would be less than significant.

**School Services**

New housing constructed as part of implementation of the Focused GPU would likely result in an increase of students within the project area. Using an elementary/middle (K-8) and high student generation rate of 0.2 students per unit[4], construction of 3,595 residential units would result in 719 elementary/middle school students and 719 high school students. It should be noted that several smaller unit types, including Accessory Dwelling Units (ADUs) and studio or one-bedroom apartments, are unlikely to generate any students given their anticipated small size. However, in order to be conservative, it is estimated that every type of unit, regardless of size, would generate 0.2 elementary/middle school students and 0.2 high school students. The following discussion describes services within each school district.

*Belmont-Redwood Shores School District.* It is anticipated implementation of the Housing Element Update would result in approximately 79 new students within the Belmont-Redwood Shore School District. As shown in Table 4.13-2, over the last five years (2017-2022), there has been a decline in enrollment of 357 students. In 2021-2022, the District had 3,967 students and a District-wide facility capacity of 4,450 students. In communication with the District, the Superintendent noted that the additional students associated with implementation of the Housing Element Update could likely be accommodated within existing facilities; however, there are several housing development proposals within Belmont that would likely affect enrollment. Additionally, the District is expected

[3] San Mateo County Sheriff Department. 2022. Email communication from Kristina Bell, Police Chief for the City of San Carlos. Sept 19.

[4] A 0.2 student generation rate was included in the Developer Fee Studies for both the San Carlos School District and the Sequoia Union High School District. While the San Carlos School District provided a different rate (0.28) for single-family homes, as the majority of units would be anticipated to be multi-family units, a student generation rate of 0.2 was used for all elementary/middle school student generation within the project area.

to expand Transitional Kindergarten (TK) facilities in the future. The District is undertaking a demographic study that will be completed by the end of 2022. [5]

*San Carlos School District.* It is anticipated implementation of the Housing Element Update would result in approximately 632 new students within the San Carlos School District. As shown in Table 4.13-2, over the last five years (2017-2022), there has been a decline in District enrollment of 546 students. There is currently a District-wide facility capacity of 3,162 students.

Student enrollment projection information[6] provided by the District indicates a projected decline in enrollment through 2031, with projections identifying a 2022 student population of 2,526 students and a 2031 population of 2,066 (a decline in enrollment of 460 students between 2022 and 2031). However, communication with the District's Director of Enterprise & Community Relations noted that the current enrollment is 214 students above the projected amount for this year. Additionally, the District will be implementing a Transitional Kindergarten (TK) program in the coming years. The District noted that it would not be able to accommodate an additional 632 new students associated with the project without building additional classroom facilities.[7]

*Redwood City School District.* It is anticipated implementation of the Housing Element Update would result in approximately ten new students located within the Redwood City School District. As shown in Table 4.13-2, over the last five years (2017-2022), there has been a 1,134 student decline in District enrollment. As the anticipated number of new students is limited, and implementation of the Housing Element Update would occur over eight years, it was assumed that the District would be able to accommodate the additional ten students.

*Sequoia Union High School District.* It is anticipated implementation of the Housing Element Update would result in approximately 719 high school students within the Sequoia Union High School District. Unfortunately, the District did not provide a response to the City's consultant's request for information regarding student enrollment, capacity, or projections. Given the number of anticipated students, it is assumed that the District would require additional facilities to accommodate new high school students associated with the Project.

Summary. While Table 4.13-2 shows that elementary school districts within the project area have experienced declining enrollment over the last five years, and that the high school district enrollment has remained stable, it is likely that residential growth associated with implementation of the Focused GPU could exceed the capacity of existing school facilities resulting in the need for additional school facilities.

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[5] Belmont-Redwood Shores School District, 2022. Email communication from Dan Deguara, Superintendent, August 15.

[6] Decision Institute, 2022. Projections, San Carlos School District, 2022.

[7] San Carlos School District, 2022. Email communication from Amber Farinha, MA, MSW Director of Enterprise & Community Relations, October 7, 2022.

It should be noted that while the City has identified the overall level of housing development associated with implementation of the Housing Element Update (3,576 residential units), there is less certainty about the type of units that may be constructed. Many unit types (such as Accessory Dwelling Units [ADUs], studio units, 1-bedroom apartment units, or units marketed to seniors) are unlikely to generate new students given the size or type of unit. Additionally, the Housing Element Update is an eight year plan and the City cannot identify the exact timing that development may occur as the majority of development would be undertaken by private entities. Finally, as many school districts in California have experienced a general decline in enrollment over the last five years, a trend that is anticipated to continue, available capacity within a school district may change year-to-year.

Payment of school impact fees, as allowed by Government Code 65996, are meant to offset increased student enrollment and has been deemed by the State legislature (per Government Code Section 65995(h)) to constitute full and complete mitigation of impacts of a development project on the provision of adequate school facilities. Table 4.13-4 shows current developer fees by school district. Any specific school facility developments would be subject to environmental review on a project-by-project basis.

**Table 4.13-4: Developer Fee by School District**

| | Elementary School District | | |
|---|---|---|---|
| | **San Carlos School District** | **Belmont-Redwood Shores School District** | **Redwood City School District** |
| Residential Development Fee | $4.79 per square foot | $3.79 per square foot | $3.79 per square foot |
| Percent of fee total allocated to Sequoia Union High School District | 40 percent of fee | 40 percent of fee | 40 percent of fee |

Sources: Jack Schreder & Associates, Inc., 2022. *Level I Development Fee Study for San Carlos Elementary School District,* April 19; Belmont-Redwood Shores School District, 2022. Email communication from Dan Deguara, Superintendent, August 15; Redwood City School District, 2021. Developer Fee Report, Fiscal Year Ending June 30, 2021.

The Environmental Safety and Community Services Element Update includes several policies related to public school services. Policy ESPS-13.4 notes working with the school districts to ensure that development within the City is coordinated with the provision of services. Policy ESPS-14.4 assures that new development does not adversely impact the quality of San Carlos schools by requiring that new development be evaluated through the California Environmental Quality Act. Finally, Policy ESPS-14.5 calls for the participation of the City in the long-range planning activities with the San Carlos Unified School District and the Sequoia Union High School District.

Through the payment of associated development fees, compliance with applicable State and local regulations, adherence to policies included in the Environmental Safety and Community Services Element Update, implementation of the Focused GPU would have a less-than-significant impact on school facilities.

### Library Services

Implementation of the Focused GPU could result in an increase in population within the City, which could result in increased demand for library services. Any remodeled or new library facility would be subject to environmental review under CEQA. Environmental review would identify site-specific conditions and physical changes resulting from library expansion or construction. New residential development within the project area would result in an increase in the tax base of the city and could be used to offset the incremental demand for library services. Implementation of the Focused GPU would result in a less than significant impact related to library services.

### Parks and Recreational Facilities

New development anticipated under the Housing Element update has the potential to add 9,240 new residents which would increase the demand for park and recreational facilities in the project area. To meet the City's parkland ratio of 2.5 acres per every 1,000 residents during the planning period of the proposed Housing Element (2023-2031), the City would need to add 21.6 acres of new parkland in addition to the existing total of developed parkland in the City.

Existing goals, policies and actions in the 2030 General Plan help the City meet the parkland ratio goal and would make sure that existing facilities are not negatively impacted by future growth. Goal PR-1 of the Parks and Recreation Element calls for an increase in the amount of City-owned park and open space land. Policy PR-1.1 of that element requires the provision of a minimum of 2.5 acres of traditional parkland for every 1,000 residents. Policy PR-1.2 requires that a park facility be required within ¼- to ½-mile of every resident. Policies PR-1.3 and PR-1.4 call for the maintenance of athletic fields and active parks and passive open space, as well as the acquisition of land to provide additional recreational opportunities. Actions PR-1.1 through PR-1.9 offer strategies to acquire sites for the development of new parks through a variety of funding methods. For example, Action PR-1.9 considers a policy requiring the maximum allowable park land dedication fee.

The specific environmental impact of constructing new individual park or recreation facilities would be evaluated at the time that new development projects potentially resulting in the demand for such facilities are proposed. As future new development proposals are evaluated, specific park and recreation facility requirements will be identified through the environmental review process and appropriate mitigation measures will be implemented that could include the dedication of parkland, construction of new facilities or rehabilitation of existing facilities, and/or the payment of in-lieu fees. Therefore, implementation of the proposed project would result in a less-than-significant impact on parks and recreational facilities.

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# 4.14 TRANSPORTATION

This section describes the characteristics of the transportation network in the project area and potential transportation impacts of the Housing Element, including multimodal circulation and vehicle miles traveled (VMT). Measures to mitigate are recommended as necessary to avoid or minimize potentially significant transportation impacts. The analysis focuses on the impacts of the Housing Element Update and addresses other project components when applicable.

## 4.14.1 Environmental Setting

### Project Location

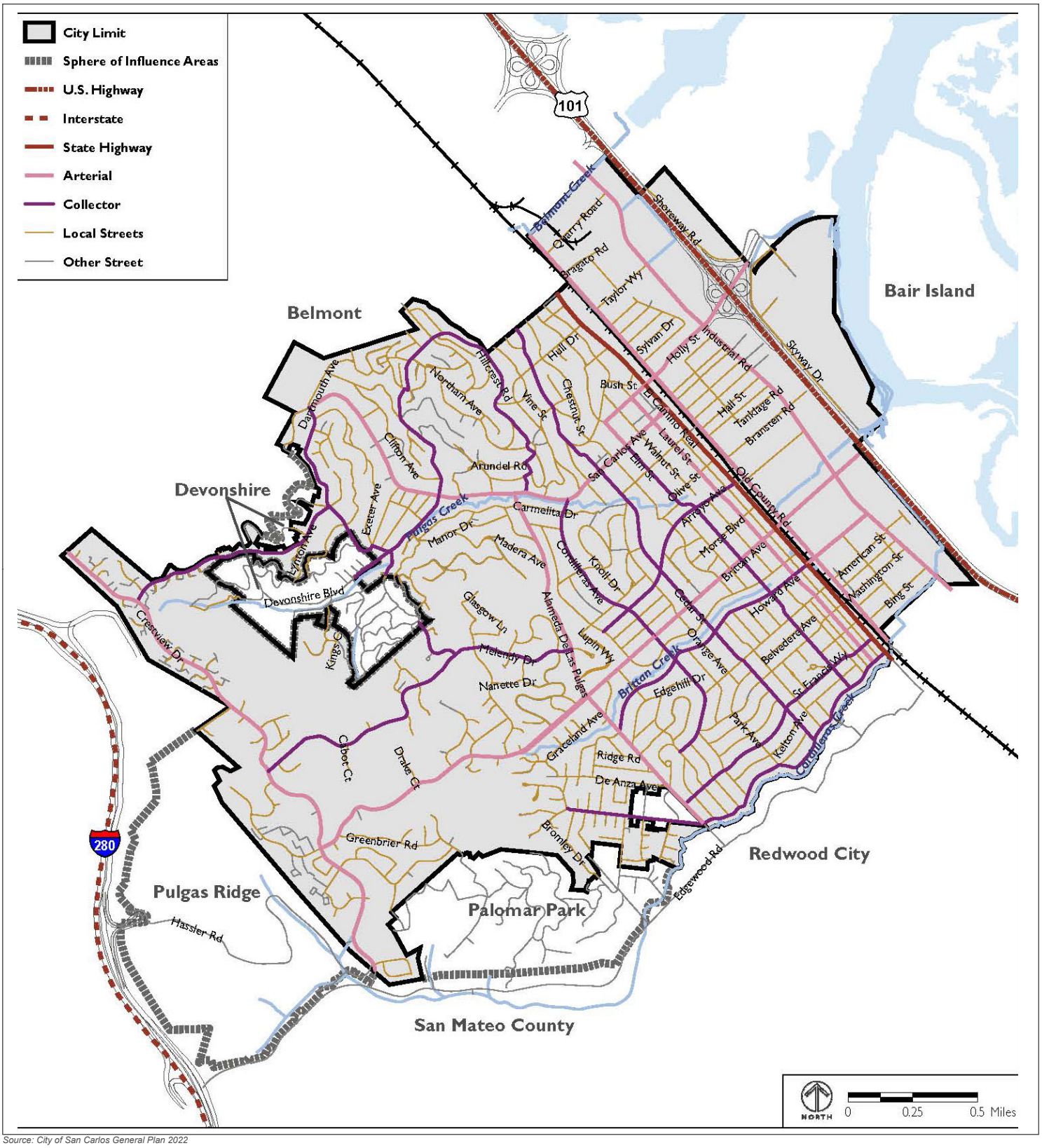
The City of San Carlos is located in San Mateo County, roughly midway between the cities of San Francisco and San Jose. Most of the City is located west of US 101 and east of Interstate 280 (I-280). In addition to US 101, major north-south travel routes within San Carlos include El Camino Real, Old County Road, Industrial Road, and Alameda de las Pulgas. San Carlos Avenue and Brittan Avenue serve as major east-west routes connecting to El Camino Real, with access to US 101 provided by Holly Street and Brittan Avenue. The street network is shown in Figure 4.14-1.

### Travel Characteristics

Residents of San Carlos rely primarily on personal motor vehicles for commuting. As reported in the 2019 American Community Survey (which reflects commuting prior to the COVID-19 pandemic), 79.7 percent of working San Carlos residents commuted by car, truck, or van, with 74.8 percent driving alone. Public transportation was used as the primary commute mode by 7.7 percent of workers living in San Carlos, including 4.5 percent traveling by commuter rail. Approximately 3.7 percent of workers reported walking or biking to work, while 8.1 percent worked from home.

This commute pattern is similar to San Mateo County as a whole, although the countywide use of public transportation is higher. Countywide, 75.9 percent of County residents commute by car, truck, or van; 12 percent public transportation; 3.8 percent walking and biking; 6.1 percent work from home. The higher countywide public transportation rate appears to be due to the availability of BART service in the northern part of the county, as 5.2 percent of workers reported commuting by subway or elevated rail.

In terms of commute distance, 87.2 percent of employed San Carlos residents travel less than 25 miles to work, with 46.2 percent having commutes of less than 10 miles and 41.0 percent traveling 10 to 24 miles (U.S. Census Bureau 2019).




Source: City of San Carlos General Plan 2022

**Figure 4.14-1** Street Network

*Focused General Plan Update*

## Existing Circulation Network

Study Area Roadways

The San Carlos General Plan designates four classifications for the City's roadway network. These classifications are hierarchical, based on the volume and type of traffic associated with each street, as follows.

A. Freeways and State Highways: largely serve through traffic and link the City to the regional transportation network.

B. Arterial Streets: the primary streets within the City, connecting major destinations to one another.

C. Collector Streets: provide connectivity between arterial streets and act as feeders for traffic from less densely developed areas.

D. Local Streets: low-volume, low-speed streets that primarily provide direct access to the abutting properties and typically offer limited connectivity to discourage through trips. They may connect to one or more collector streets.

## Freeways and State Highways

US Route 101

US 101 is a north-south highway that runs between southern California and the state of Washington. Locally it is configured as an eight-lane, grade-separated freeway and is a major corridor serving communities on the San Francisco Peninsula. In San Carlos, a full interchange along US 101 exists at Holly Street, and a partial interchange with southbound US 101 is provided at Brittan Avenue. There is also a full interchange at Ralston Avenue in Belmont, while Harbor Boulevard and Whipple Avenue provide access to and from southbound US 101 in Belmont and Redwood City, respectively.

Interstate 280

A major north-south route along the Peninsula, Interstate 280 (I-280) is a freeway connecting San Jose with San Francisco. In the study area it is located just west of the San Carlos city limits. Ralston Avenue in Belmont provides access to I-280 via State Route (SR) 92, as the SR 92/I-280 interchange is located approximately one-half of a mile west of the SR 92/Ralston Avenue interchange. Along the segment near San Carlos, I-280 includes eight travel lanes.

El Camino Real

El Camino Real, also designated as SR 82, is a regional route that extends between I-880 in San Jose and I-280 in San Francisco. El Camino Real functions as a state highway and commercial corridor through communities along the San Francisco Peninsula. Within San Carlos, the roadway

has two through lanes in each direction and a posted speed limit of 35 miles per hour (mph). The San Carlos Caltrain station is located on El Camino Real.

### Arterials

Alameda de las Pulgas

Alameda de las Pulgas runs north-south through the central part of San Carlos, connecting with Redwood City to the south and Belmont to the north via San Carlos Avenue. Within the City limits there is one travel lane in each direction, the speed limit is 30 mph, and land uses are primarily residential.

Brittan Avenue

Brittan Avenue runs east-west through San Carlos and is considered a primary entry point to the City. East of El Camino Real, land uses are primarily commercial and there are two travel lanes in each direction with a speed limit of 30 mph. West of El Camino Real there is one travel lane in each direction and land uses are primarily residential.

Crestview Drive

Crestview Drive runs along the major north-south ridge in the western portion of San Carlos. The route extends from the Belmont city limit to Edgewood Road at a lower elevation. The speed limit is 30 mph, and there are one to two travel lanes in each direction. Land uses are primarily residential along this roadway and it provides access to several parks and open space areas within and outside the City limits.

Holly Street

Holly Street runs east-west through the downtown area and provides access to US 101 and the Redwood Shores community to the east. East of El Camino Real there are two travel lanes in each direction with a speed limit of 25 mph. West of El Camino Real there is one travel lane in each direction. Land uses are a mix of commercial and residential along this roadway.

Howard Avenue

Howard Avenue between Laurel Street and Industrial Road functions as an arterial with two lanes in each direction and a speed limit of 30 mph. Land uses are primarily commercial in this area.

Industrial Road

Industrial Road runs north-south through the eastern portion of City. There are two travel lanes in each direction with a speed limit of 35 mph. Offices and commercial and industrial land uses exist along this roadway.

Laurel Street

Laurel Street is a north-south arterial street serving downtown San Carlos with one travel lane in each direction and a speed limit of 25 mph.

Old County Road

Old County Road runs north-south along the east side of the Caltrain tracks and parallel to El Camino Real. With one travel lane in each direction and speed limit of 30 mph, the roadway primarily serves industrial and commercial uses.

San Carlos Avenue

San Carlos Avenue traverses east to northwest and connects to El Camino Real and Alameda de las Pulgas. East of Prospect Street there are two travel lanes in each direction and land uses are a mix of commercial, residential, and institutional. West of Prospect Street there is one travel lane in each direction, and land uses are residential. The speed limit is 30 mph along most of the roadway. San Carlos Avenue provides pedestrian access to the Caltrain station.

Shoreway Road

Shoreway Road runs north-south adjacent to US 101 and mostly serves large commercial and office land uses with one travel lane in each direction and a speed limit of 35 mph.

**Existing Pedestrian and Bicycle Facilities**

This section describes the existing pedestrian and bicycle facilities in the City of San Carlos.

Pedestrian Facilities

The City of San Carlos has pedestrian facilities that include sidewalks, pathways, curb ramps, crosswalks, curb extensions, and amenities such as pedestrian scale lighting, benches, transit shelters, and street trees. While the sidewalk network is generally complete in the eastern and southern areas of the city, in the hilly residential areas there are numerous locations where sidewalks are substandard, not present, or have gaps.

Bicycle Facilities

Bicycle facilities in San Carlos include Class I pathways, Class II bike lanes, and Class III bike routes. There are continuous bike lanes along Alameda de las Pulgas and Industrial Road, as well as some segments of San Carlos Avenue, Old County Road, and Brittan Avenue. Bicycle routes are also designated along segments of San Carlos Avenue, Old County Road, Brittan Avenue, Cedar Street, and Arroyo Avenue.

## Existing Transit Service

The primary public transit providers in San Carlos are SamTrans and Caltrain. In addition to services they directly provide, they offer connections to regional transit services and local services in other nearby jurisdictions.

SamTrans

SamTrans provides fixed-route bus service throughout San Mateo County, also providing connections to San Francisco and Palo Alto. The following routes, shown in Figure 4.14-2, serve the City of San Carlos:

- Route ECR provides service along El Camino Real from the Palo Alto Transit Center to the Daly City BART Station. On weekdays, the bus runs every 20 minutes from approximately 4:00 a.m. until 2:00 a.m. On weekends, it runs every 30 minutes from 4:45 a.m. until 2:00 a.m.

- Route 397 runs between Downtown San Francisco and the Palo Alto Transit Center. It operates daily from approximately 1:00 a.m. until 6:30 a.m. with one-hour headways, with no mid-day or evening service. This route serves the San Francisco International Airport, the Millbrae Transit Center, and the Redwood City Transit Center.

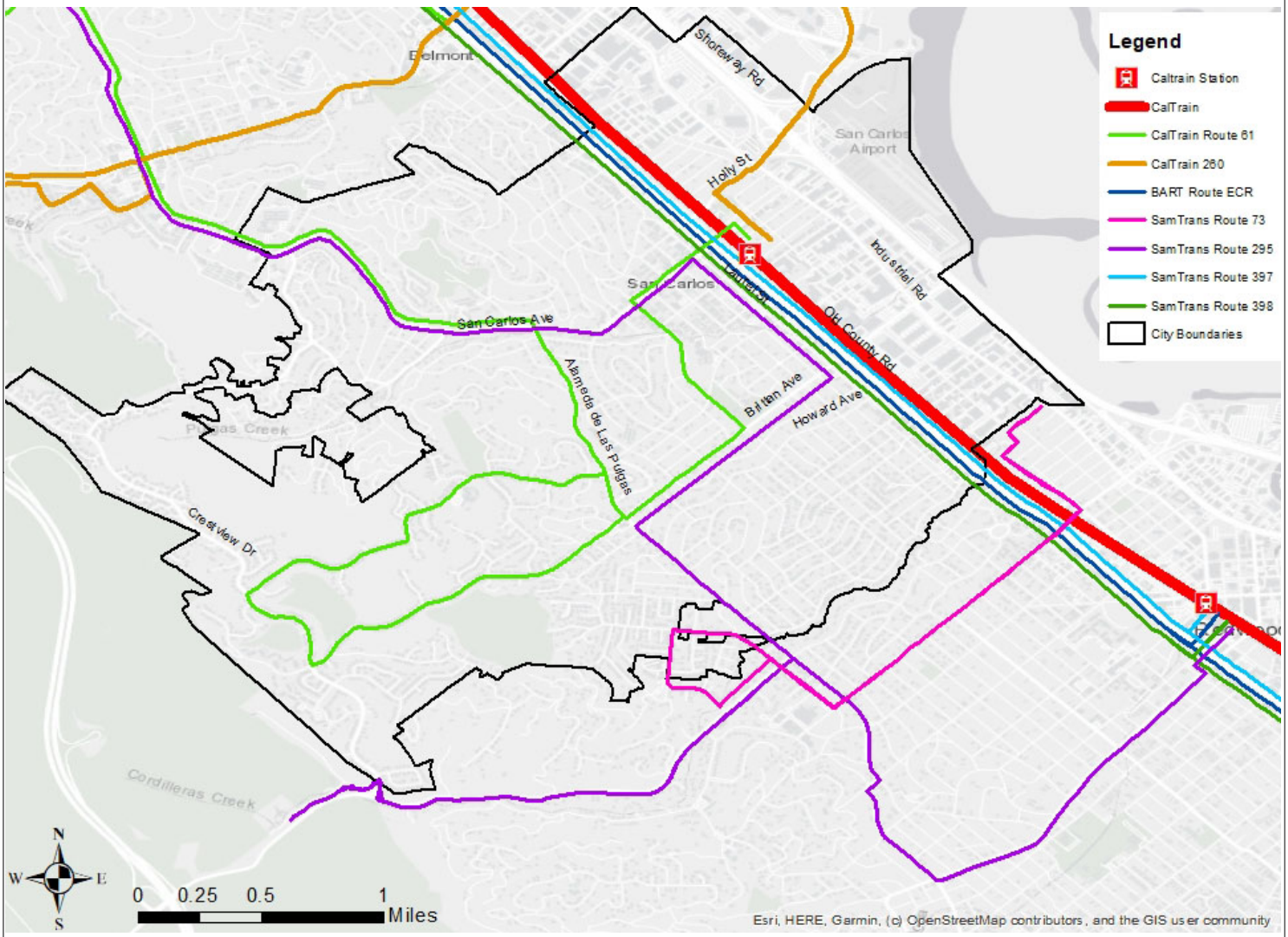
- Route 398 runs between the San Bruno BART Station and the Redwood City Transit Center, also serving the San Francisco International Airport. It runs hourly from 5:00 a.m. until 11:30 p.m. on weekdays and 6:00 a.m. to 11:30 p.m. on weekends.

- Route 260 is a weekday route that connects the San Carlos Caltrain Station to the College of San Mateo. It operates every 60 minutes from 6:00 a.m. until 6:30 p.m. This route serves the College of San Mateo, Crystal Springs Shopping Center, and the County Youth Center.

- Route 295 is a weekday route that runs between the San Mateo Caltrain Station and the Redwood City Caltrain Station, also serving the station in San Carlos. It operates every two hours from 6:30 a.m. until 7:00 p.m.

Caltrain

Caltrain is the commuter rail line serving the San Francisco Peninsula, connecting San Carlos with San Francisco to the north and San Jose and Gilroy to the south. On weekdays, there are 31 trains servicing the San Carlos Station in the northbound and southbound directions. On weekends, there are 16 trains that stop at the station in each direction. The San Carlos Caltrain Station is located on El Camino Real near the intersection with San Carlos Avenue. The station includes paid vehicle parking as well as racks and lockers for bicycle parking; lockers must be reserved.




*Source: San Carlos General Plan 2030*

**Figure 4.14-2** SamTrans Bus Routes

Bay Area Rapid Transit (BART)

BART provides regional heavy-rail rapid transit service, with stations in Alameda, Contra Costa, San Francisco, San Mateo, and Santa Clara Counties. Although BART does not provide service to San Carlos, connections to and from San Carlos are available to the Millbrae and San Francisco International Airport stations via Caltrain and SamTrans bus service.

San Francisco Bay Ferry

The Water Emergency Transportation Authority (WETA) operates the regional San Francisco Bay Ferry service. The only ferry terminal on the Peninsula is in the City of South San Francisco, from where weekday ferry service is available to the Cities of Alameda and Oakland. The South San Francisco ferry terminal includes parking; it is not directly served by transit.

Paratransit

Paratransit is an on-demand curb-to-curb service for persons with disabilities who cannot independently use regular fixed-route transit services. The San Mateo Transit District's Redi-Wheels service provides paratransit in San Carlos and other San Mateo County communities. Redi-Wheels operates daily service between the hours of 5:30 a.m. and midnight. Riders must have their eligibility certified by SamTrans and reservations can be made in advance.

Private Commuter Shuttles

Numerous employers provide commuter shuttle service for their employees, with such services implemented by individual employers or through partnerships between multiple businesses. Such services typically provide transportation between employment sites and pick-up points in residential areas or at major transit stations; one such example in San Carlos is the shuttle provided by Electronic Arts to connect the Caltrain station to its Redwood City campus, although the shuttle service was suspended as of September 2022.

On-Demand Transportation Services

On-demand private taxi services are available in San Carlos 24 hours a day. Taxis can be used for trips within San Carlos or for trips between San Carlos and locations in other jurisdictions. Transportation network companies (TNCs) offer similar services in San Carlos and throughout the Bay Area. TNCs provide prearranged transportation services for compensation using an online-enabled application or platform (such as smart phone apps) to connect drivers using their personal vehicles with passengers.

### Existing Truck Routes

The City of San Carlos Municipal Code Section 10.48 designates truck routes for vehicles exceeding a maximum gross weight, including load, of three tons. Segments of Howard Avenue

and Brittan Avenue between El Camino Real and Industrial Road are designated as truck routes, along with US 101, El Camino Real, and Industrial Road.

**Major Planned Transportation Projects**

Plan Bay Area 2050 includes several projects that would impact transportation to and from San Carlos. The emphasis of these investments is more efficient use of the regional highway and transit infrastructure through capital and operational enhancements. Projects that would most directly affect San Carlos include the following:

- Enhancements at the US 101/Holly Street interchange.
- Bus rapid transit (BRT) improvements to existing bus service along El Camino Real connecting Daly City BART with the Palo Alto Caltrain Station, including increased frequency, dedicated lanes along portions of the route, and addition of transit signal priority infrastructure.
- Increased Caltrain frequency between San Francisco and San Jose.
- New express bus service along US 101 and I-280 (on express lanes where available) between downtown and western San Francisco, including addition of park-and-ride facilities, ramp improvements and bus stop improvements.
- New express bus service along US 101, SR 85 and I-280 (on express lanes where available) between San Francisco (Salesforce Transit Center) and San Jose (Diridon Station). Improvements include high-frequency service and station area amenities such as upgraded local bus stops, taxi/TNC loading zones, and improved bicycle/pedestrian infrastructure.

### 4.14.2 Regulatory Setting

Local, regional, State, and Federal policies regulate many aspects of the City's transportation system, including planning and programming; design; operations; and funding. While the City of San Carlos has primary responsibility for the maintenance and operation of local transportation facilities, there is ongoing coordination between San Carlos staff and regional, state, and federal agencies to plan, manage, and enhance the City's transportation assets; these entities include San Mateo County, San Mateo County Transportation Authority (SMCTA), City/County Association of Governments of San Mateo County (C/CAG), Metropolitan Transportation Commission (MTC), California Department of Transportation (Caltrans), regional transit providers and Federal Highway Administration.

## State

California Department of Transportation (Caltrans)

Caltrans is the owner and operator of the state highway system, which includes US 101 and El Camino Real within San Carlos. In its *Vehicle Miles Traveled-Focused Transportation Impact Study Guide* (TISG), 2020, Caltrans developed an approach for evaluating the transportation impacts of land use projects and plans on state highway facilities; this document does not address the impacts of transportation projects. In accordance with current CEQA requirements, the TISG does not consider vehicle delay in its evaluation of transportation impacts, instead focusing on VMT. The purposes of the TISG include providing guidance to lead agencies regarding when they should analyze potential impacts to the state highway system; to aid Caltrans staff in reviewing projects; and to ensure consistency in the assessment of impacts and identification of non-capacity increasing mitigation measures.

California Senate Bill 743 (SB 743)

On September 27, 2013, SB 743 was signed into law, supporting previous climate-focused and transportation legislation, including the Sustainable Communities and Climate Protection Act of 2008 (SB 375), the California Global Warming Solutions Act of 2006 (AB 32), as well as the Complete Streets Act (AB 1358), which requires local governments to plan for a balanced, multimodal transportation network that meets the needs of all users.

In December 2018, the Governor's Office of Planning and Research (OPR) issued a final advisory to guide lead agencies in implementing SB 743, Technical Advisory on Evaluating Transportation Impacts in CEQA. Key guidance includes:

- VMT is the most appropriate metric to evaluate a project's transportation impact under CEQA.
- VMT for residential and office projects should generally be assessed using efficiency metrics, i.e., on a "per rate" basis.
- The OPR-recommended threshold of significance for residential projects is VMT per capita of fifteen percent below the city or regional average. Applying this threshold, a residential project expected to generate VMT per capita that is more than 85 percent of the regional VMT per capita could result in a significant impact. This threshold was developed to support statewide GHG emission reduction targets.
- Lead agencies have the discretion to set or apply their own significance thresholds in lieu of those recommended in the advisory, provided they are based on substantial evidence.
- Cities and counties still have the ability to use metrics such as LOS for other plans, studies, or network monitoring. However, LOS and similar metrics cannot constitute the sole basis for determining CEQA impacts.

## Regional

Plan Bay Area 2050

*Plan Bay Area 2050* is the nine-county San Francisco Bay Area's long-range plan that addresses regional transportation, housing, economic development, and environmental resilience. The plan identifies funding priorities for a $1.4 trillion vision over a 30-year period, directed toward addressing the plan's 35 strategies. *Plan Bay Area 2050* was adopted by the Metropolitan Transportation Commission and Association of Bay Area Governments in 2021.

*Plan Bay Area 2050* includes the following transportation strategies:

- T1. Restore, operate and maintain the existing system. Commit to operate and maintain the Bay Area's roads and transit infrastructure while reversing pandemic-related cuts to total transit service hours.

- T2. Support community-led transportation enhancements in Equity Priority Communities. Provide direct funding to historically marginalized communities for locally identified transportation needs.

- T3. Enable a seamless mobility experience. Eliminate barriers to multi-operator transit trips by transfer hubs.

- T4. Reform regional transit fare policy. Streamline fare payment and replace existing operator-specific discounted fare programs with an integrated fare structure across all transit operators.

- T5. Implement per-mile tolling on congested freeways with transit alternatives. Apply a per-mile charge on auto travel on select congested freeway corridors where transit alternatives exist, with discounts for carpoolers, low-income residents, and off-peak travel; and reinvest excess revenues into transit alternatives in the corridor.

- T6. Improve interchanges and address highway bottlenecks. Rebuild interchanges and widen key highway bottlenecks to achieve short- to medium-term congestion relief.

- T7. Advance other regional programs and local priorities. Fund regional programs like motorist aid and 511 while supporting local transportation investments on arterials and local streets.

- T8. Build a Complete Streets network. Enhance streets to promote walking, biking and other micro-mobility through sidewalk improvements, car-free slow streets, and 10,000 miles of bike lanes or multi-use paths.

- T9. Advance regional Vision Zero policy through street design and reduced speeds. Reduce speed limits to between 20 and 35 miles per hour on local streets and 55 miles per hour on

freeways, relying on design elements on local streets and automated speed enforcement on freeways.

- T10. Enhance local transit frequency, capacity and reliability. Improve the quality and availability of local bus and light rail service, with new bus rapid transit lines, South Bay light rail extensions, and frequency increases focused in lower-income communities.

- T11. Expand and modernize the regional rail network. Better connect communities while increasing frequencies by advancing the Link21 new transbay rail crossing, BART to Silicon Valley Phase 2, Valley Link, Caltrain Downtown Rail Extension and Caltrain/High-Speed Rail grade separations, among other projects.

- T12. Build an integrated regional express lanes and express bus network. Complete the buildout of the regional express lanes network to provide uncongested freeway lanes for new and improved express bus services, carpools and toll-paying solo drivers.

### County

San Mateo County Congestion Management Program 2019

The City/County Association of Governments of San Mateo County (C/CAG) is the designated Congestion Management Agency (CMA) for San Mateo County. In accordance with California Government Code Section 65088, each CMA is required to prepare and adopt a Congestion Management Program (CMP) on a biennial basis. The CMP includes monitoring and evaluation of Level of Service (LOS) along the designated CMP network, which includes US 101 and the El Camino Real/Holly Street intersection in San Carlos. With the updating of CEQA per the requirements of SB 743, maintenance of LOS standards is no longer part of the environmental review process.

C/CAG Transportation Demand Management (TDM) Policy

The C/CAG TDM Policy provides guidelines regarding analysis of the transportation impacts of development projects in municipalities in San Mateo County. Unless exempted from the policy, local jurisdictions are required to notify C/CAG of incoming development that is estimated to generate an average of 100 trips per day. For affected projects, applicants are required to complete a TDM checklist and implement measures to reduce the estimated number of trips and their adverse effects on traffic operations. The type and magnitude of TDM measures are based on the land use type and project size.

### Local

San Carlos 2030 General Plan

The Circulation and Scenic Highways Element of the San Carlos 2030 General Plan includes several objectives, policies and programs addressing traffic, roadways, transit, and bicycle and

pedestrian facilities. The Circulation and Scenic Highways Element emphasizes the efficient use of the City's existing roadway capacity through development of a multimodal transportation system and coordination of transportation with land use planning and the development of housing. As stated in the Plan, transportation improvements should "help reduce dependence on the automobile as a method of reducing traffic congestion, improving safety, reducing pollution, promoting energy conservation, promoting health and increasing accessibility for all residents." Following are select policies and actions identified in the Circulation and Scenic Highways Element that apply to the proposed Housing Element Update component of the project.

*Policy CSH-2.3*: - Access to public transportation facilities should be convenient and designed to encourage use of public transit.

*Policy CSH-3.3*: - 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-used development and decrease dependency on automobiles.

*Policy CSH-3.13:* - The City may consider traffic-calming devices to reduce speeds and to discourage thru traffic in residential neighborhoods. Impacts of diverting traffic to adjacent neighborhoods, bicycle and pedestrian access and safety, noise, emergency response time, aesthetics and maintenance should be reviewed prior to allowing traffic calming devices.

*Action CSH-3.3:* - The City shall support local school district efforts to reduce traffic through programs such as safe routes to school, school pools and school bus/shuttle programs.

*Action CSH-3.7:* - The City shall strive to reduce vehicular trip generation from new development by 20 percent and to reduce vehicle miles traveled by 15 percent, using a combination of both public and private funds and efforts. The 20 percent and 15 percent reductions shall be obtained through implementation of Transportation Demand Measures (TDMs). For private development projects, no less than a 10 percent reduction in vehicular trip generation should be attained through the implementation of TDMs that are privately funded and implemented. TDMs may include, but are not limited to, incorporation of the following measures into new development projects:

- Mixed-use areas
- Neighborhood centers
- Pedestrian-oriented public and private development improvements
- Increased/enhanced pedestrian linkages
- Bicycle-friendly improvements
- Access to transit corridor

- Participation in local public shuttle programs
- Parking management
- Links between commercial, residential and industrial areas of the community
- Access to a variety of transportation modes
- C/CAG Congestion Management Plan Trip Reduction Measures

*Action CSH-3.10* - The City shall support an intra-city (east/west) local shuttle to feed into other forms of local and regional transportation.

*Action CSH-3.1* - New development projects shall be required to mitigate traffic, circulation and/or parking impacts. The City may impose a mitigation fee on new developments for the proportional share of costs to mitigate the traffic, circulation and/or parking impact of a project.

*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.

*Policy CSH-5.1* - Connect neighborhoods, school sites, activity centers, transportation centers, recreational sites and other important community amenities with sidewalks, pedestrian paths, trails and bikeways.

*Policy CSH-5.3* - Support an interconnected system of pedestrian ways, paths, trails, bikeways and transit routes within the city and between adjacent communities.

*Policy CSH-6.1* - Bicycling and walking facilities should be incorporated into all new development projects to the maximum extent feasible.

*Policy CSH-6.2* - Support transit-oriented development with mixed, dense land use that reduces the need to travel and that is linked to good transit. The City shall work with local, regional and State representatives to encourage the support and funding of transit-oriented development projects.

<u>East Side Innovation District Vision Plan</u>

The East Side Innovation District Vision Plan (adopted October 25, 2021) presents planning strategies, goals, principles, and action items to achieve the desired characteristics for the future East Side Innovation District area, which is a 150-acre commercially zoned area located on the east side of San Carlos, for which the Vision Plan is intended to guide the transformation of the District from its existing industrial character to a neighborhood containing a mix of new uses such as biotechnology, life science, and high-tech office, as well as walkable amenities, sustainable and resilient infrastructure, and publicly accessible open spaces and trails. This plan was intended to

be used in the early stages of project development to determine how a project can be conceptualized and programmed so that a portion of the plan can be fulfilled with each act of new construction or public involvement.

San Carlos Bicycle and Pedestrian Master Plan

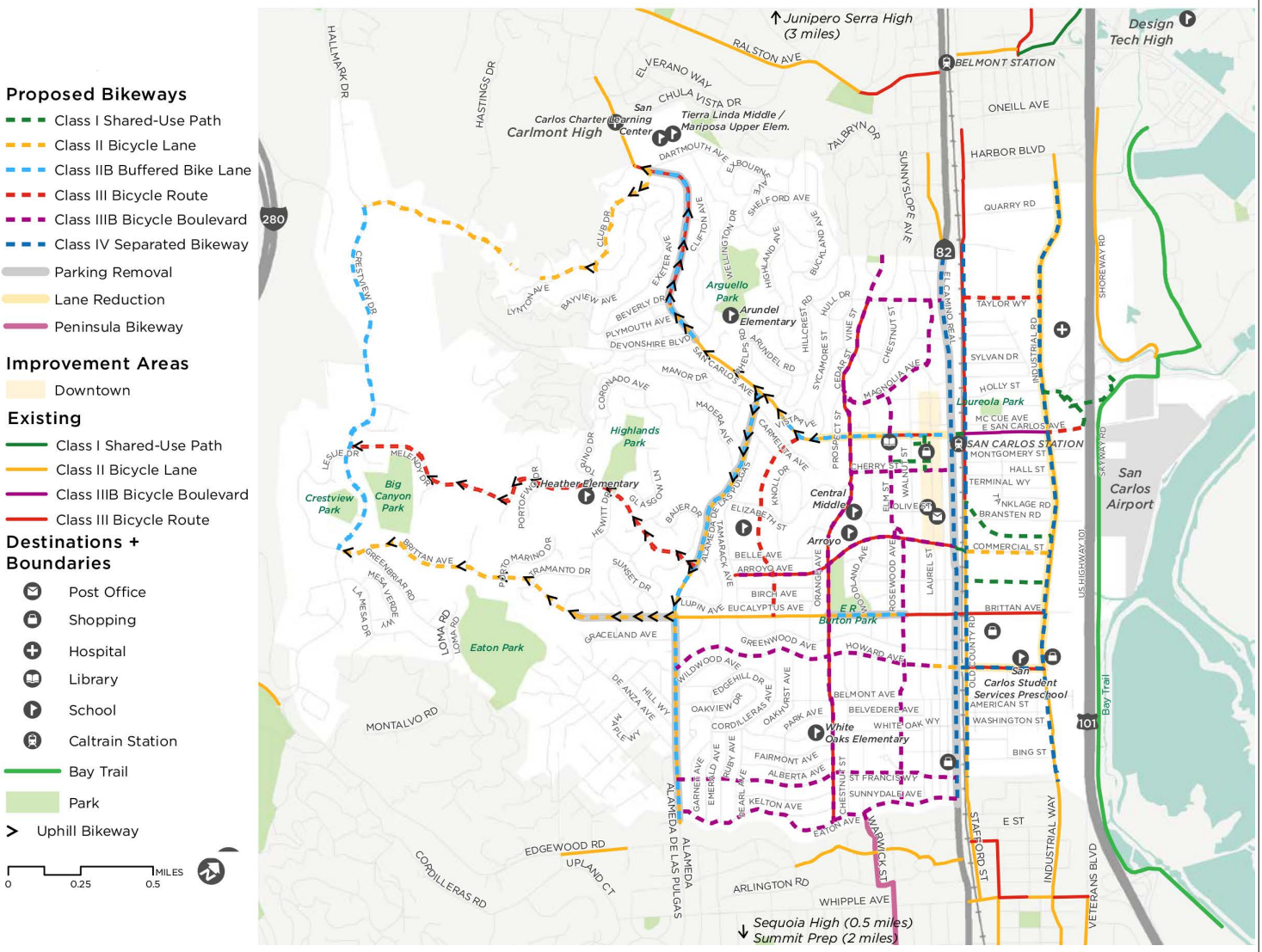
The *Bicycle and Pedestrian Master Plan* (BPMP) was adopted in June 2020. The BPMP establishes a long-term vision for improving walking and bicycling in San Carlos and presents a strategy to develop a comprehensive bicycling and walking network that provides access to transit, schools and downtown. This plan provides guidance to City staff and the development community in building a balanced transportation system where active modes are supported and accessible. The 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 vehicle trips. Existing and planned bicycle facilities are shown in Figure 4.14-3.

San Carlos Vehicle Miles Traveled (VMT) Policy

As provided for in SB 743, in 2020 the City adopted a VMT policy that was based on assessment of local needs and development characteristics, to be used in evaluating the potential VMT impacts of land development and transportation projects. The City's policy is generally consistent with the OPR technical advisory, establishing a significance threshold of 15 percent below the countywide average VMT per service population. Housing projects are exempt from VMT analysis if they are located within one-half-mile of the San Carlos Caltrain station or El Camino Real and are consistent with the General Plan Land Use Designations and Zoning Code or if they generate fewer than 100 trips per day, corresponding with thresholds established by C/CAG for the CMP.

San Carlos Complete Streets Policy

The City adopted a Complete Streets Policy in 2021 to support the development of a multimodal transportation network that serves all categories of users. Provisions of the policy include applying a context-sensitive approach to local conditions so that appropriate facilities will be designed to best serve the needs of residential as well as commercial areas, with consideration for the urban, suburban, or rural nature of the location.




Source: San Carlos General Plan 2030

**Figure 4.14-3** Bicycle and Pedestrian Facilities

*Focused General Plan Update*

MIG

Transportation Demand Management Program

The City of San Carlos has adopted a Transportation Demand Management (TDM) program with requirements that apply to all new residential developments, except for single-family dwellings, accessory units, and multi-family projects of fewer than ten units. Chapter 18.25.030 of the San Carlos Municipal Code requires each qualifying project to incorporate TDM measures to reduce the estimated project-generated trips to 20 percent lower than the most recent trip generation rates from the Institute for Transportation Engineers (ITE) *Trip Generation Manual*. To demonstrate compliance with the TDM program, applicants must meet monitoring requirements. For projects not in compliance with program requirements, the City may require project owners/operators to modify their previously approved TDM measures.

Transportation Impact Fees

The City of San Carlos Municipal Code Section 8.50 establishes transportation impact fees to require new development to fund a proportional share of infrastructure improvements to offset potential transportation impacts, which would affect the quality of service, safety, and other factors. For residential development, the fees are assessed on a per unit basis.

### 4.14.3 Thresholds of Significance

Per the CEQA guidelines, the proposed project would have a significant impact related to transportation if it would:

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

b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b);

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

d) Result in inadequate emergency access.

Regarding VMT, the City's adopted VMT policy specifies a metric of VMT per service population, which is calculated by dividing the project's total VMT by the sum of population and employment. While VMT per capita includes only home-based trips (trips that either begin or end at a place of residence) and VMT per employee includes only employee commute trips, total VMT includes other trips not included in the VMT per capita or per employee calculations, such as customer trips to and from retail sites, visitor trips, and deliveries. Per the City's policy, the significance threshold used for this analysis was 15 percent below the countywide VMT per service population based on existing development.

### 4.14.4 Impacts and Mitigation Measures

This section describes potential impacts related to transportation that would result from implementation of the project.

#### Methodology

The potential housing unit locations have been identified for inclusion in the proposed Housing Element Update and analyzed for their transportation impacts. However, since specific projects have not been proposed for these sites, this analysis was undertaken at the program level, as project-level impacts such as site access and adequacy of multimodal circulation cannot be analyzed as part of this review. This more detailed assessment will take place as part of the development review process for proposed projects.

The analysis of the Housing Element's potential transportation impacts was based on an assessment of applicable policies and a quantitative evaluation of vehicle miles traveled (VMT). The project VMT was assessed using the most recent version of the City/County Association of Governments of San Mateo County-Santa Clara County Valley Transportation Authority (C/CAG-VTA) Countywide Model. The model is based on the transportation network assumptions from Plan Bay Area 2040 (the Bay Area's Regional Transportation Plan/ Sustainable Communities Strategy) and the corresponding population, housing and employment forecasts developed by the Association of Bay Area Governments (ABAG). The housing opportunity sites and proposed number of units were assigned to the traffic analysis zones (TAZs) associated with the model.

The following scenarios were analyzed:

- Existing Conditions (2019): Reflects current conditions without the project.
- Existing plus Project (2019): Adds buildout of the San Carlos Housing Element to existing conditions.
- Cumulative (2040): Reflects future conditions including regional growth and buildout of the current General Plan.
- Cumulative plus Project (2040): Adds buildout of the San Carlos Housing Element to the Cumulative scenario.

***Impact TRANS-1: The project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. (Less Than Significant Impact)***

The proposed Housing Element Update would result in an increased number of residential units and therefore increased use of the transportation system. Based on the proximity of the project sites to commercial areas and high-quality transit, the project would support a land development pattern that would result in shorter trip lengths and would encourage use of non-vehicle modes of

transportation. It is therefore expected that the project would generate additional walking, bicycling, and transit trips.

The Housing Element Update includes modification and additions to the policies as part of the project. The following proposed policy relates to the City's circulation system:

> *Policy HOU-2.2 Complete Streets* - Promote development that supports the City's Complete Streets Policy, Bicycle and Pedestrian Master Plan, and a pedestrian- and bicycle-friendly environment.

The policies included in the adopted Circulation Element of the General Plan indicate the City's intent to support the development of higher intensity land uses near transit and commercial areas to reduce the need to travel, to provide convenient access to transit, and to support the reduction in vehicle trips. The concentration of the potential housing sites in the vicinity of the Caltrain station and El Camino Real support these policies. The proposed pedestrian, bicycle, and transit facilities to be added in support of the project would need to be designed in accordance with appropriate design guidelines and standards. The adequacy of the existing and planned infrastructure needed to support additional pedestrian, bicycle, and transit travel would be assessed as part of the project level development review.

The City of San Carlos' TDM requirements would apply to incoming multi-unit residential projects of 10 units or more. Such projects must incorporate measures to achieve trip generation rates that are at least 20 percent below the Institute of Transportation Engineers (ITE) standard rates; the City code references the C/CAG TDM Policy regarding the amount of trip reduction associated with each measure. Such TDM measures would support the City's Circulation Element policies, as the concentration of the potential housing sites near the San Carlos Caltrain station and El Camino Real supports the successful implementation of trip reduction measures focused on transit or active transportation.

Since the project is expected to further encourage the use of transit and active transportation, it supports existing City policies and proposed Housing Element policies. Therefore, with respect to potential conflicts with circulation system policies, the impact of the proposed Housing Element Update would be less than significant.

***Impact TRANS-2: The project would not conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b). (Less Than Significant Impact)***

The VMT associated with the project was estimated using the C/CAG-VTA travel demand model. The VMT estimates for each analysis scenario are presented in Table 4.14-1 and Table 4.14-2, including a comparison between City of San Carlos, San Mateo County, and Bay Area estimates of VMT per service population; additional details of the VMT analysis are presented in Appendix E.

| Table 4.14-1: 2019 Daily VMT Summary – VMT per Service Population | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Scenario** | **Households** | **Population** | **Jobs** | **ADT Trips** | **VMT Households** | **VMT Jobs** | **VMT/ Service Population*** |
| **Existing (2019)** | | | | | | | |
| **City of San Carlos** | 13,046 | 33,896 | 20,416 | 167,429 | 566,823 | 386,523 | 17.55 |
| **San Mateo County** | 271,610 | 782,585 | 383,066 | 3,592,118 | 12,478,042 | 7,385,584 | 17.04 |
| **Bay Area** | 2,766,914 | 7,740,411 | 3,848,081 | 31,021,369 | 124,970,549 | 66,795,404 | 16.55 |
| **Existing Plus Project (2019)** | | | | | | | |
| **Housing Element** | 5,057 | 12,927 | 779 | 29,487 | 174,365 | 4,727 | 13.07 |
| **City of San Carlos** | 18,103 | 46,823 | 21,195 | 196,910 | 741,262 | 391,113 | 16.65 |
| **San Mateo County** | 276,667 | 795,512 | 383,845 | 3,622,554 | 12,734,825 | 7,345,660 | 17.03 |
| **Bay Area** | 2,771,971 | 7,753,338 | 3,848,860 | 31,059,674 | 125,045,004 | 66,831,525 | 16.54 |

**15% Below San Mateo County Average VMT: 14.48 per Service Population**
**Source: C/CAG Model, Kittelson & Associates, Inc., 2022**
*** Service population is the sum of population and jobs**

| Table 4.14-2: 2040 Daily VMT Summary – VMT per Service Population | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Scenario** | **Households** | **Population** | **Jobs** | **ADT Trips** | **VMT Households** | **VMT Jobs** | **VMT/ Service Population** |
| **2040 No Project** | | | | | | | |
| **City of San Carlos** | 13,046 | 33,896 | 26,452 | 184,791 | 562,267 | 494,834 | 17.52 |
| **San Mateo County** | 322,670 | 930,289 | 485,854 | 4,194,713 | 14,026,367 | 9,881,890 | 16.88 |
| **Bay Area** | 3,423,406 | 9,663,450 | 4,725,006 | 36,319,573 | 156,510,412 | 83,719,586 | 16.70 |
| **2040 Plus Project** | | | | | | | |
| **Housing Element** | **5,057** | **12,927** | **779** | **28,957** | **167,217** | **12,091** | **13.08** |
| **City of San Carlos** | 18,103 | 46,823 | 27,231 | 213,691 | 729,625 | 506,250 | 16.69 |
| **San Mateo County** | 327,727 | 943,216 | 486,633 | 4,224,846 | 14,239,276 | 9,860,833 | 16.86 |

| Table 4.14-2: 2040 Daily VMT Summary – VMT per Service Population | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Scenario** | **Households** | **Population** | **Jobs** | **ADT Trips** | **VMT Households** | **VMT Jobs** | **VMT/ Service Population** |
| **Bay Area** | 3,428,463 | 9,676,377 | 4,725,785 | 36,360,865 | 156,881,584 | 83,922,042 | 16.72 |

15% Below San Mateo County Average VMT: 14.48 per Service Population
Source: C/CAG Model, Kittelson & Associates, Inc., 2022
* Service population is the sum of population and jobs

The San Mateo countywide VMT per service population under existing conditions is 17.04 miles, resulting in a threshold of 14.48 miles. With a VMT per service population of 13.07 miles, the proposed Housing Element Update is below this threshold. With consideration for planned and regional growth, the proposed Housing Element Update is estimated to have a VMT per service population of 13.08, which is also below the countywide threshold. Therefore, the impact of the proposed Housing Element Update with respect to VMT is less than significant.

As noted in the Regulatory Setting discussion, San Carlos has adopted a citywide TDM requirement, which is not accounted for in the travel demand model. The policy requires all multi-unit residential projects of 10 units or more to reduce their estimated number of trips by 20 percent compared to standard rates from the most recent edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual*. The Code specifies a list of acceptable trip reduction measures, to be selected on a project-by-project basis, and references the guidance provided by the C/CAG TDM Policy regarding the number of trips reduced per trip reduction measure.

Projects subject to the City's TDM requirement must include a TDM plan with the project application. Annual TDM program monitoring is required for such projects, as well as a five-year review of the overall effectiveness of TDM activities. Based on the results of this review, the City may suggest new or modified activities to ensure that the project meets the trip reduction target.

Based on the Housing Element's VMT as estimated in the C/CAG-VTA model, the VMT per service population would be below the threshold of significance. As most of the proposed housing units would be subject to the City's TDM requirements, and would be required to implement TDM measures, the VMT would be expected to be further reduced below this level. Therefore, the impact of the project with respect to the CEQA Guidelines § 15064.3, subdivision (b) would be less than significant.

***Impact TRANS-3: The project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). (Less Than Significant Impact)***

Modifications to the transportation network near the housing sites identified in the project would be implemented over time, as would facilities elsewhere in San Carlos and the surrounding communities. New or upgraded facilities would be designed and constructed to be consistent with local, regional, and federal standards and guidelines; as a result, they would not be expected to introduce hazardous design features.

Housing development projects that include infrastructure improvements such as new streets, driveways, or pedestrian and bicycle facilities would undergo project-level review, and potential hazards would be identified as part of the review process. Potential safety concerns to be evaluated include the adequacy of sight lines at project access points and visibility issues that result from project-related vehicle queues.

Based on the design requirements for new projects and the analysis included in project-level review, the impact of the project with respect to the introduction of hazardous design features would be less than significant.

***Impact TRANS-4: The project would not result in inadequate emergency access. (Less Than Significant Impact)***

**Housing Element Update**

The implementation of the housing units proposed as part of the proposed Housing Element Update would not be expected to result in inadequate emergency access. At the project level, each project would be required to meet City and County standards and requirements and would be reviewed by public safety officials as part of the approval process. Safety, Fire, and Building Codes would be adhered to for all proposed development included in the updated Housing Element.

Emergency vehicle response times would continue to be reduced due to the ability of emergency vehicles to use vehicle preemption technology (where possible) and sirens; this capability would remain regardless of any roadway capacity modification. For any roadways that would be modified as part of the implementation of the proposed housing units, any reduction in vehicular roadway capacity would require an analysis of traffic operations to identify potential impacts to emergency vehicle access; in the event that any such impacts are identified, mitigation measures would be developed to reduce potentially significant impacts to less than significant levels.

**Environmental Safety and Public Services Element Update, Land Use Element Update, Circulation and Scenic Highways Element Update, and Environmental Management Element Update**

The proposed Environmental Safety and Public Services Element, Land Use Element, Circulation and Scenic Highways Element, and Environmental Management Element contain the following policies related to emergency access:

> *Action ESPS-3.8:* When a fire has occurred in the VHFSZ, evaluate if street design and size can be reconfigured to improve emergency access and evacuation efficiency. If the City has an unwritten policy, adopt a written re-development policy.
>
> *Action ESPS-3.14:* Condition all new development and redevelopment to have adequate fire protection, incorporate and maintain fire safe design, including fuel modification zones, defensible space, two ingress/egress points, emergency vehicle access, and visible home addressing and street signage.

*Action ESPS-3.23***:** Evaluate the City's roadways regarding access, alignments, etc. to facilitate fire, police, and ambulance access and resident egress in case of an emergency.

*Policy ESPS-3.14:* Provide adequate evacuation routes and access for fire and emergency service vehicles to all San Carlos areas.

*Policy ESPS-3.15:* Identify and implement measures to mitigate the single access roads and non-conforming roadways, as feasible.

*Action ESPS-3.24***:** Identify streets and key intersections that, due to pavement width, hairpin turns, and tight curves, if not cleared of vehicles, may interfere with emergency vehicle access and/or resident evacuation during a fire.

*Action ESPS-3.25***:** Identify the potential for street widening and improvement during regular Capital Improvement project maintenance, e.g., emergency access, utility undergrounding, resurfacing, and American with Disabilities (ADA) compliance.

*Action ESPS-3.26***:** Prohibit parking on one or both sides of a street identified as having the potential to interfere with emergency vehicle access and/or resident evacuation during a fire, when Red Flag alerts have been issued.

*Action ESPS-3.27***:** In conjunction with the use of the Zonehaven system, supplement the evacuation plan as shown in Figure 8-12, with special emphasis placed on the areas that do not have sufficient access and egress identified on Figure 8-13. Recommend improvements to ensure adequate evacuation capabilities.

*Action ESPS-3.28***:** Conduct a study to review evacuation routes, their capacity, safety, and viability under a range of emergency scenarios as set forth in AB 747. Determine remedial actions, as appropriate. Update evacuation plans with each update of the Safety Element to address changes in at-risk areas and populations.

*Policy LU-10.6:* Require all new development and significantly modified development in the High and Very High Fire Susceptibility Zones to install and maintain fire prevention design and materials in accordance with Building Codes at the time of the construction/reconstruction.

*Policy CSH-1.1:* Widths of streets and highways should be sufficient to address existing and projected traffic volumes, emergency access requirements, while providing positive pedestrian and bicycle experiences.

*Policy CSH-3.5:* Street and right-of-way widths should be designed and constructed in accordance with the street standards established in this plan, the City Subdivision Ordinance and Standard Details. However, flexibility for street widths should be permitted with sensitivity to slope, neighborhood character, traffic volume, emergency access requirements, and pedestrian/bicycle needs.

*Action EM-11.3:* Design streets to accommodate all modes of transportation, including emergency vehicles, and provide for a safe and attractive pedestrian experience.

These policies and actions ensure that proper emergency access is considered and planned for in wildfire hazard areas and other areas of the City. These policies ensure that no significant impacts would result from inadequate emergency access and the impact is considered less than significant.

### 4.14.5 References

City of San Carlos Transportation Significance Criteria, Resolution 2020-066, http://sancarlosca.iqm2.com/Citizens/FileOpen.aspx?Type=1&ID=3108&Inline=True

San Carlos General Plan, 2009, https://www.cityofsancarlos.org/Home/ShowDocument?id=1105

San Carlos Bicycle and Pedestrian Master Plan, 2020, https://www.cityofsancarlos.org/home/showpublisheddocument/6058/637302506699000000

San Carlos Complete Streets Policy, Resolution 2012-066, https://www.cityofsancarlos.org/home/showpublisheddocument/730/636568158369870000

*Plan Bay Area 2050*, Metropolitan Transportation Commission and Association of Bay Area Governments, 2021, https://planbayarea.org

*San Mateo Countywide Transportation Plan 2040*, City/County Association of Governments, 2017, https://ccag.ca.gov/programs/countywide-transportation-plan/

*Vehicle Miles Travel-Focused Transportation Impact Study Guide*, Caltrans, 2020, https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-05-20-approved-vmt-focused-tisg-a11y.pdf

*Handbook for Analyzing GHG Emission Reductions, Assessing Climate Vulnerabilities, And Advancing Health and Equity*, California Air Pollution Control Officers Association (CAPCOA), 2021, https://www.caleemod.com/handbook/index.html.

# 4.15 UTILITIES AND SERVICE SYSTEMS

This EIR section addresses the project's potential impacts on utilities and service systems and suggests mitigation measures, if required.

## 4.15.1 Environmental Setting

### Water Supply

San Carlos receives its water from two local domestic water providers: the California Water Service Company (Cal Water) and the Mid-Peninsula Water District. The Cal Water San Carlos system has 112 miles of mains, 18 storage tanks, and 24 booster pumps[1]. The Mid-Peninsula Water District only serves a small portion of San Carlos[2]. All of the inventory sites identified within the Housing Element Update are within the Cal Water and Mid-Peninsula District service area. These two local domestic water providers purchase water from the San Francisco Public Utilities Commission (SFPUC).

San Francisco Public Utilities Commission (SFPUC)

As described in the Cal Water Mid-Peninsula District 2020 Urban Water Management Plan, the sole source of water supply to the Cal Water Mid-Peninsula District is treated water purchased from the City and County of San Francisco's Regional Water System (RWS), which is operated by the San Francisco Public Utilities Commission (SFPUC). Approximately 85 percent of the water supply to the SFPUC RWS originates in the Hetch Hetchy watershed, located in Yosemite National Park, and flows down the Tuolumne River into the Hetch Hetchy Reservoir. Water from the Hetch Hetchy watershed is managed through the Hetch Hetchy Water and Power Project. The remaining 15 percent of the water supply to the SFPUC RWS originates locally in the Alameda and Peninsula watersheds and is stored in six different reservoirs in Alameda and San Mateo Counties.

California Water Service Company

The majority of water service in San Carlos is managed by Cal Water's Bayshore District. The Bayshore District is divided into two areas; the Mid-Peninsula District, which includes San Carlos and San Mateo, and the South San Francisco District. It is estimated that the Mid-Peninsula District's service area population was 137,486 in 2020. The 2045 projected population (150,974) is based on population, housing, and employment projections developed by the Association of Bay Area Governments (Association of Bay Area Governments [ABAG] Projections 2040). Water use in the Mid-Peninsula District in 2020 was 14,563 acre-feet (AF), with residential customers

[1] California Water Service, 2022. San Carlos 2021 Water Quality Report, Website: https://www.calwater.com/ccrs/bay-sc-2021/ (accessed August 19, 2022).

[2] Mid-Peninsula Water District, 2022 Urban Water Master Plan System Map, Website: UWMP_MPWD_SystemMap2_Large.png (1899×1229) (storage.googleapis.com)(accessed August 29, 2022).

accounting for most of the District's service connections and 72 percent of its water use. The San Carlos public water system accounted for 3,658 AF of the Mid-Peninsula District's 14,465 AF total. Non-residential water uses accounted for 22 percent of total demand, while distribution system losses accounted for six percent. Projected water use in 2045 is anticipated to be 15,279 AF.[3] Table 4.15-1 shows projected water use.

Cal Water's Individual Supply Guarantee (ISG) from the SFPUC is 35.68 MGD (39,993 acre-feet per year; AFY), which is shared among its Bear Gulch, Mid-Peninsula, and South San Francisco Districts (also referred to as the "Peninsula Districts"). The 2020 UWMP estimates the Peninsula Districts' demand will increase over time to 36,396 AF in 2045. Therefore, the Peninsula Districts are expected to have adequate water supplies during normal years to meet its projected demands through 2045. However, the District is expected to experience significant shortfalls during single dry and multiple dry year conditions as a result of Bay-Delta Plan Amendment implementation. At this time numerous uncertainties remain in the implementation of the Bay-Delta Plan Amendment and the resultant allocation of the available supply to the District and the other SFPUC wholesale customers. Cal Water has developed a Water Shortage Contingency Plan to address potential water shortage conditions. [4] The Water Shortage Contingency Plan (WSCP) addresses water shortage conditions resulting from any cause (e.g., droughts, impacted distribution system infrastructure, regulatory-imposed shortage restrictions, etc.). The WSCP identifies a variety of actions that Cal Water would implement to reduce demands and further ensure supply reliability at various levels of water shortage. The WSCP is based on the six water shortage levels (also referred to as "stages"); these shortage stages are intended to address shortage caused by any condition, including the catastrophic interruption of water supplies.

**Table 4.15-1: Cal Water Mid-Peninsula District Projected Potable and Non-Potable Water Use**

| Use Type | Additional Description (as needed) | Projected Water Use (volume in acre-feet) | | | | |
|---|---|---|---|---|---|---|
| | | 2025 | 2030 | 2035 | 2040 | 2045 |
| Single Family | | 8,146 | 8,094 | 8,108 | 7,997 | 7,948 |
| Multi-Family | | 2,204 | 2,370 | 2,499 | 2,720 | 2,971 |
| Commercial | | 2,345 | 2,301 | 2,368 | 2,409 | 2,464 |
| Institutional/Gov't | | 718 | 722 | 755 | 787 | 824 |
| Industrial | | 31 | 31 | 31 | 31 | 31 |
| Other Potable | | 121 | 121 | 121 | 121 | 121 |
| Landscape | (a) | 0 | 0 | 0 | 0 | 0 |

[3] Ibid.
[4] Ibid.

| Table 4.15-1: Cal Water Mid-Peninsula District Projected Potable and Non-Potable Water Use | | | | | | |
|---|---|---|---|---|---|---|
| Use Type | Additional Description (as needed) | Projected Water Use (volume in acre-feet) | | | | |
| | | 2025 | 2030 | 2035 | 2040 | 2045 |
| Losses | (b) | 853 | 891 | 904 | 912 | 920 |
| ***Total*** | | 14,418 | 14,530 | 14,786 | 14,977 | 15,279 |

Notes
*Source:* Cal Water 2020 UMWP for the Mid-Peninsula District. June 2021.

(a) District's billing system does not track this use type separate from other use types.
(b) Real and apparent losses.

## Sanitary Sewer Service

The San Carlos Public Works Department provides wastewater collection service for San Carlos. The City owns and operates a sanitary sewer collection system consisting of approximately 104 miles of sewer pipelines and six sewer lift stations. The average flow from the City to the treatment plant is about two million gallons per day. The majority of the gravity system (almost 70 percent) consists of 6-inch pipe, and over 85 percent is pipes less than 10 inches in diameter. The oldest portions of the system date to the 1920s, with a large portion of the system constructed in the 1940s and 1950s, with newer areas in the hills developed later. The primary sewer pipe material in the collection system is vitrified clay pipe, with plastic materials used for newer sewer construction and rehabilitation. The collection system also includes approximately 11,000 private sewer laterals.[5]

Wastewater generated within the City is treated at a wastewater treatment plant (WWTP) operated by a joint powers authority called Silicon Valley Clean Water (SVCW), which serves the communities of Belmont, Redwood City, San Carlos, and the West Bay Sanitary District. The WWTP is a regional wastewater treatment plant jointly owned by San Carlos, Belmont, Redwood City, and the West Bay Sanitary District, for treatment and subsequent discharge into the San Francisco Bay. A small percentage of SVCW's wastewater is treated to higher levels and used as recycled water by Redwood City.

SVCW owns and operates the WWTP, including support facilities necessary for the operation and maintenance of the treatment plant, wastewater conveyance system force mains, five wastewater conveyance pump stations, and an effluent outfall into the San Francisco Bay. Approximately eight miles of force main pipe is owned, operated, and maintained by SVCW. The pipe varies in diameter from 33-inch to 63-inch. Four pump stations pump raw wastewater to the SVCW force main and one booster station pumps peak wet weather flows from West Bay Sanitary District and

[5] City of San Carlos Public Works Department, 2022. San Carlos Sewer System General Information. Website: https://www.cityofsancarlos.org/home/showpublisheddocument/848/636571580313500000 (accessed August 19, 2022).

City of Redwood City when necessary. SVCW owns, operates, and maintains the pump stations and is reimbursed by the individual member agencies for costs expended on the operation and maintenance related to the member agency's service areas.[6]

The wastewater at the SVCW WWTP undergoes primary, secondary (activated sludge), dual media filtration, disinfection, and dechlorination treatment before being discharged to a deep-water outfall in the San Francisco Bay. The SVCW WWTP has a capacity to treat 29.5 MGD, but currently receives approximately 20.0 MGD from customers in the SVCW service area. SVCW is currently providing recycled water to sites located in and owned by the Cities of Redwood City and Menlo Park.[7]

### Stormwater Management

The City owns and operates a storm drain system comprised of catch basins, manholes, pipes, conveyance channels, creeks, ditches, pump stations, and covers four main watersheds. In general, stormwater in the City drains from the residential areas in the hills at the west side of the City, then flows east towards the commercial areas at the east side of the City to the San Francisco Bay via four outfalls. Stormwater is conveyed to the Bay via open ditches and pipelines into the City's four primary creeks: Belmont, Brittan, Cordilleras, and Pulgas. The City has three pump stations: Pulgas Pump Station, Holly Street Pump Station, and Howard/Brittan Pump Station. [8]

The City has experienced periodic flooding over the years and these flooding events are generally due to a combination of issues, including storm drain inlet blockages from leaves and debris; stormwater volumes that are greater than the capacity of the City storm drain pipelines; and backwater and overtopping from creeks. In addition, the eastern portion of the City is mostly flat and at low ground elevation relative to the Bay and is subject to tidal influences and sedimentation. The City is responsible for maintenance of the storm drain system and the creeks, but the City does not have easements to access and maintain portions of the creeks, especially the upstream reaches west of El Camino Real.[9] Property owners along most of Belmont and Cordilleras Creeks are responsible for creek maintenance.[10]

A technical study has been prepared to determine feasible flood control alternatives for Belmont Creek that would reduce flooding at the Novartis Pharmaceuticals Corporation (Novartis) facility located at 150 Industrial Road in the City of San Carlos. The Belmont Creek Watershed Study, Creek Assessment, and Recommendations for Sustainable Improvements Project studied flood control measures to mitigate the flooding that has historically occurred at the Novartis facility.[11]

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[6] Silicon Valley Clean Water, 2020. Capital Improvement Program, 2020 Update, FY20-21 to FY29-30.
[7] California Water Service, 2022. 2020 Urban Water Management Plan, Mid-Peninsula District, June.
[8] City of San Carlos, 2017. Citywide Storm Drain System Master Plan, April.
[9] Ibid.
[10] Personal Communication with Grace Le, San Carlos Public Works Department. October 5, 2022.
[11] Wreco, 2014. Belmont Creek Watershed Study, Creek Assessment, and Recommendations for Sustainable Improvements San Mateo County, California, September.

### Electricity, Natural Gas, and Telecommunications

Electricity and natural gas would be provided to the project site by Peninsula Clean Energy (PCE) and Pacific Gas and Electric (PG&E), respectively. PCE is San Mateo County's Community Choice Aggregate (CCA), a community-controlled, not-for-profit joint powers agency. PCE procures renewable sources of electricity throughout San Mateo County, while PG&E manages and maintains the electrical infrastructure used to supply consumers with electricity.

### Solid Waste

Solid waste and recyclables are collected within the city by a provider contracted through the South Bayside Waste Management Authority (SBWMA). SBWMA, also known as RethinkWaste, is a joint powers authority formed by eleven local government jurisdictions in San Mateo County (City of Belmont, City of Burlingame, City of East Palo Alto, City of Foster City, Town of Hillsborough, City of Menlo Park, City of Redwood City, City of San Carlos, City of San Mateo, County of San Mateo and West Bay Sanitary District). 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. Unrecyclable waste is then disposed of at Ox Mountain Landfill in Half Moon Bay.

## 4.15.2 Regulatory Setting

### Water Supply

<u>Federal</u>

*Safe Drinking Water Act*

The Safe Drinking Water Act (SDWA), administered by EPA in coordination with the California Department of Public Health (CDPH), is the main federal law that ensures the quality of drinking water. Under SDWA, EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards.

<u>State</u>

*California Safe Drinking Water Act*

The California Department of Public Health (CDPH) coordinates with the federal EPA to ensure the quality of local drinking water. The CDPH oversees state implementation of the SDWA based on the standards for drinking water quality established by the EPA.

*State of California Recycled Water Policy*

On January 22, 2013, the SWRCB adopted the State of California Recycled Water Policy, a revision of a 2009 statewide recycled water policy, with the ultimate goal of increasing the use of recycled water from municipal wastewater sources. Included in this policy is the mandate to

increase the use of recycled water in California to 1.5 million acre-feet per year (AFY) by 2020, and an additional 2.5 million AFY by 2030. The plan also states that the SWRCB expects to increase the use of stormwater from 2007 levels to at least 500,000 AFY by 2020 and one million AFY by 2030.

*Government Code §65589.7*

Section (a) of Government Code §65589.7 states that the housing element adopted by the legislative body and any amendments made to that element shall be immediately delivered to all public agencies or private entities that provide water or sewer services for municipal and industrial uses, including residential, within the territory of the legislative body and that priority for the provision of these services shall be provided to proposed developments that include housing units affordable to lower income households.

*California Code of Regulations, Title 22, Division 4*

The SWRCB – Division of Drinking Water is authorized to set the criteria for recycled water production and use. Title 22, Division 4 of the California Code of Regulations (CCR) defines these criteria, which pertain to treatment processes, water quality, and reliability. It establishes minimum water quality criteria requirements for various use categories, including irrigation, wetlands, and industrial uses. For unrestricted reuse, including use at parks and playgrounds, schoolyards, and other unrestricted access facilities, and specifies disinfected tertiary treatment. Title 22 also specifies that for disinfected tertiary-treated water, there must be a separation of 50 feet between areas irrigated with recycled water and domestic groundwater wells.

*California Code of Regulations, Title 17*

Title 17, Section 7584 of the CCR requires the water supplier to protect the public water supply from contamination by implementing a cross-connection control program. This program must include, but not be limited to, surveys to identify water use premises where cross-connections are likely to occur, and provisions of backflow protection by the water user downstream (after) the user's connection to the public water system.

In accordance with Title 17, Section 7604 of the CCR, the type of protection required to prevent backflow into the public water supply is determined by the degree of hazard that exists on the consumer's property. Required backflow devices must include, but not be limited to, a double check valve assembly reduced-pressure principal device, and air-gap separation. The required backflow protection device is determined by the individual city and/or the appropriate state agency.

*Senate Bill 610 and Senate Bill 221*

Senate Bill 610 (SB 610) and Senate Bill 221 (SB 221) amended state law to ensure better coordination between local water supply and land use decisions, and ensure adequate water supply for new development. SB 610 requires the preparation of a water supply assessment for projects

within cities and counties that propose certain projects. The Water Code requires that a water supply assessment be prepared for any "project" that would consist of one or more of the following:

- A proposed residential development of more than 500 dwelling units
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space
- A proposed hotel or motel, or both, having more than 500 rooms
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area
- A mixed use project that includes one or more of the projects specified above
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling-unit project

SB 221 amended state law, effective January 1, 2002, to improve the link between information on water supply availability and land use at the tentative map preparation phase of a project. SB 610 and SB 221 are companion measures that seek to:

- Promote more collaborative planning between local water suppliers and cities and counties
- Require detailed information regarding water availability be provided to city and county decisionmakers prior to approval of specific large development projects
- Require that this detailed information be included in the administrative record that serves as the evidentiary basis for an approval action by the city or county on such projects
- Recognize local control and decision making regarding the availability of water for projects and the approval of projects

Both statutes require that detailed information regarding water availability be provided to city/town and county decision-makers prior to approval of large development projects.

*Statewide Water Conservation Act of 2009 (Senate Bill X7-7)*

In November 2009, the California State legislature passed, and the Governor approved, a comprehensive package of water legislation, including Senate Bill (SB) X7-7 addressing water conservation. In general SB X7-7 requires a 20 percent reduction in per capita urban water use by 2020, with an interim 10 percent target in 2015. The legislation requires urban water users to develop consistent water use targets and to use those targets in their Urban Water Management Plans (UWMPs). SB X7-7 also requires certain agricultural water supplies to implement a variety of water conservation and management practices and to submit Agricultural Water Management Plans.

*Urban Water Management Planning Act*

Through the Urban Water Management Act of 1983, the California Water Code requires all urban water suppliers within California to prepare and adopt an Urban Water Management Plan (UWMP) and update it every five years. This requirement applies to all suppliers providing water to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. The Act is intended to support conservation and efficient use of urban water supplies at the local level. The Act requires that total projected water use be compared to water supply sources over the next 20 years in five year increments, that planning occur for single and multiple dry water years and that plans include a water recycling analysis that incorporates a description of the wastewater collection and treatment system within the agency's service area along with current and potential recycled water uses.

*Groundwater Management Act*

The Groundwater Management Act of the California Water Code (AB 3030) provides guidance for applicable local agencies to develop a voluntary Groundwater Management Plan (GMP) in State-designated groundwater basins. GMPs can allow agencies to raise revenue to pay for measures influencing the management of the basin, including extraction, recharge, conveyance, facilities maintenance and water quality.

Local/Regional

*Cal Water 2020 Urban Water Management Plan for the Mid-Peninsula District*

Cal Water's Mid-Peninsula District provides water service to the cities of San Carlos and San Mateo. The Cal Water 2020 Urban Water Management Plan (UWMP) is the long-range planning document used by Cal Water for water supply and system planning. The UWMP summarizes the Mid-Peninsula District's historical and projected water demands, water supplies, supply reliability and potential vulnerabilities, water shortage contingency planning, and demand management programs for the years 2020 through 2045.

*San Carlos General Plan*

The 2009 General Plan provides the fundamental basis for the City's land use and development policy, and represents the basic community values, ideals and aspirations to govern a shared environment over the life of the General Plan. The General Plan includes the following elements: Land Use; Housing; Circulation and Scenic Highways; Environmental Management; Parks and Recreation; Community Safety and Services; and Noise.

Goals, policies, and actions contained in the Environmental Management Element of the General Plan focus on the protection, preservation and enhancement of natural resources in San Carlos, including the protection of water. Under State law, the City's General Plan is the primary planning document, and all other City plans and policies must be consistent with the adopted General Plan.

The General Plan Environmental Management Element includes the following applicable policies:

*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-5.8:* Work with water service providers to provide high quality domestic water.

*Policy EM-5.10:* Require the evaluation of potential groundwater depletion that could occur from new development through dewatering.

*San Carlos Municipal Code, Title 18 Zoning, Chapter 18.18 Landscaping, Section 18.18.080 and 18.18.090*

Chapter 18.18, Section 18.18.080 (Water efficient landscaping and irrigation) of the San Carlos Municipal Code establishes standards to minimize water use associated with landscaping. Section 18.18.080 requires proposed site landscaping to not exceed a maximum applied water allowance threshold based on the site's proposed landscaped area. Section 18.18.090 (Irrigation specifications) prescribes specifications for landscaping irrigation systems. Irrigation systems must consist of low-volume sprinkler heads, dry emitters, and bubbler emitters with automatic controllers.

**Wastewater**

<u>State</u>

*State Water Resources Control Board*

The SWRCB, in coordination with nine RWQCBs, performs functions related to water quality, including issuance and oversight of wastewater discharge permits (e.g., NPDES), other programs regulating stormwater runoff, and underground and above-ground storage tanks. The RWQCB requires all wastewater collection and disposal providers to prepare a Sewer System Management Plan according to the Statewide General Order Waste Discharge Requirements for Sanitary Sewer Systems.

Local

*San Carlos General Plan*

The 2009 General Plan provides the fundamental basis for the City's land use and development policy, and represents the basic community values, ideals and aspirations to govern a shared environment over the life of the General Plan. The General Plan includes the following elements: Land Use; Housing; Circulation and Scenic Highways; Environmental Management; Parks and Recreation; Community Safety and Services; and Noise.

Goals, policies, and actions contained in the Land Use and Environmental Management Elements of the General Plan include those pertaining to the City's sanitary sewer system. Under State law, the City's General Plan is the primary planning document, and all other City plans and policies must be consistent with the adopted General Plan.

The General Plan Land Use Element and Environmental Management Element include the following applicable policies:

*Policy LU-4.5:* Annexation of developed parcels shall be in substantial compliance with the following criteria:

a. The parcels are contiguous to parcels located in the City of San Carlos and contiguous to city streets.

b. The parcels are connected to the city's sanitary sewer system or can be connected to the city's sewer to the satisfaction of the City Engineer.

c. The structures on the parcels shall comply with the Building Codes in effect at the time the structures were constructed. A Code Compliance evaluation prepared by a licensed Civil Engineering or Architect shall be submitted to the San Carlos Building Department for review and approval prior to annexation.

*Policy LU-4.7:* Prior to annexation of parcels, public services and facilities meeting City standards shall be installed or provisions for their installation shall have been made to the satisfaction of the City Engineer. Public services and utilities include:

a. Construction and acceptance of improvements shall be completed prior to issuance of Building Permits or sewer connections.

b. Construction of streets meeting City subdivision street standards from the terminus of city streets currently meeting City standards to and throughout the subdivision. Where possible and appropriate and subject to environmental, health and safety considerations, rural road standards shall apply. Assessment districts may be used by the developer for installation of portions of the street which is the responsibility of the owner of abutting unimproved lands at the time their development.

*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.

*Sewer Collection System Master Plan*

The City prepared a Sewer Collection System Master Plan in 2013. The report presents a comprehensive assessment of the City's sewer collection system in order to identify system capital improvement needs. The Master Plan was also prepared to meet the requirements of the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, which require every collection system agency in California prepare a Sewer System Management Plan. The plan includes a system evaluation and capacity assurance plan and a plan for rehabilitation and replacement of sewers based on their condition.

*Sanitary Sewer Management Plan*

The San Carlos Sanitary Sewer Management Plan (SSMP) was originally prepared in July 2014 and last updated April 30, 2021. The SSMP includes eleven elements; including but not limited to goals; operation and maintenance program; design and performance provisions; overflow emergency response plan; fats, oils and grease control program; system evaluation and capacity assurance plan; and monitoring measurement and program modifications among others.

**Stormwater**

<u>Federal</u>

*Clean Water Act*

The Clean Water Act (CWA) is the primary federal legislation governing water quality and forms the basis for several state and local laws throughout the nation. The objective of the CWA is "to

restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Important and applicable sections of the Act are:

- Section 404 authorizes the United States (U.S.) Army Corps of Engineers (USACE) to regulate the discharge of dredged or fill material to waters of the U.S., including wetlands. The USACE issues individual site-specific or general (Nationwide) permits for such discharges.
- Sections 303 and 304 provide for water quality standards, criteria, and guidelines. The State implements Section 303 through the State Water Resources Control Board and Regional Water Quality Control Board (RWQCB), as discussed below. Section 304 requires the U.S. Environmental Protection Agency to publish water quality criteria that accurately reflects the latest scientific knowledge on the kind of effects and extent of effects that pollutants in water may have on health and welfare. Section 304 also provides guidance to the State in adopting water quality standards.
- Section 401 requires an applicant for any Federal permit that proposes an activity that may result in a discharge to "waters of the U.S." to obtain certification from the State that the discharge will comply with other provisions of the CWA. In California, a Water Quality Certification is provided by the State Water Resources Control Board and/or RWQCB.
- Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), which is a permitting system for the discharge of any pollutant (except for dredge or fill material) into waters of the U.S. In California, this permit program is administered by the RWQCBs, and is discussed in detail below.

*National Pollutant Discharge Elimination System*

The CWA has nationally regulated the discharge of pollutants to waters of the U.S. (e.g., streams, lakes, bays, etc.) from any point source since 1972. In 1987, amendments to the CWA added Section 402(p), which established a framework for regulating nonpoint source stormwater discharges under the National Pollutant Discharge Elimination System (NPDES) permit program. These regulations are implemented at the regional level by the Regional Water Quality Control Boards (RWQCBs). The City of San Carlos is within the jurisdiction of the San Francisco Bay RWQCB.

<u>State</u>

*State Water Resources Control Board*

Created by the California State Legislature in 1967, the State Water Resources Control Board (SWRCB) holds authority over water resources allocation and water quality protection within the State. The five-member SWRCB allocates water rights, adjudicates water right disputes, develops statewide water protection plans, establishes water quality standards, and guides the nine RWQCBs. The mission of the SWRCB is to, "preserve, enhance, and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of

present and future generations." The proposed project is under the jurisdiction of the San Francisco Bay RWQCB.

*Porter-Cologne Water Quality Control Act*

The state's Porter-Cologne Water Quality Control Act, as revised in December 2007 (California Water Code Sections 13000-14290), provides for protection of the quality of all waters of the State of California for use and enjoyment by the people of California. It further provides that all activities that may affect the quality of waters of the state shall be regulated to obtain the highest water quality that is reasonable, considering all demands being made and to be made on those waters. The Act also establishes provisions for a statewide program for the control of water quality, recognizing that waters of the state are increasingly influenced by interbasin water development projects and other statewide considerations, and that factors such as precipitation, topography, population, recreation, agriculture, industry, and economic development vary regionally within the State. The statewide program for water quality control is, therefore, administered most effectively on a local level with statewide oversight. Within this framework, the Act authorizes the SWRCB and RWQCBs to oversee the coordination and control of water quality within California.

*Statewide Construction General Permit*

The SWRCB has implemented an NPDES General Construction Permit for the State of California (Construction General Permit). For projects disturbing one acre or more of soil, a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) must be prepared by a qualified professional prior to commencement of construction. The Construction General Permit includes requirements for training, inspections, record keeping, and, for projects of certain risk levels, monitoring. The general purpose of the requirements is to minimize the discharge of pollutants and to protect beneficial uses and receiving waters from the adverse effects of construction-related storm water discharges.

<u>Local</u>

*San Francisco Bay Basin Plan*

The San Francisco Bay RWQCB regulates water quality in accordance with the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). The Basin Plan lists the beneficial uses that the San Francisco Bay RWQCB has identified for local aquifers, streams, marshes, rivers, and the San Francisco Bay, as well as the water quality objectives and criteria that must be met to protect these uses. The San Francisco Bay RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements, including permits for nonpoint sources such as the urban

runoff discharged by a City's stormwater drainage system. The Basin Plan also describes watershed management programs and water quality attainment strategies.

*Municipal Regional Permit Provision C.3.*

The San Francisco Bay RWQCB most recently re-issued the Municipal Regional Stormwater NPDES Permit (MRP) in May 2022 to regulate stormwater discharges from municipalities and local agencies (co- permittees) in Alameda, Contra Costa, San Mateo, and Santa Clara Counties, and the cities of Fairfield, Suisun City, and Vallejo. Under Provision C.3 of the MRP, new and redevelopment projects that create or replace 10,000 square feet or more of impervious surface area are required to implement site design, source control, and Low Impact Development (LID)-based stormwater treatment controls to treat post-construction stormwater runoff. LID-based treatment controls are intended to maintain or restore the site's natural hydrologic functions, maximizing opportunities for infiltration and evapotranspiration, and using stormwater as a resource (e.g., rainwater harvesting for non-potable uses). The MRP also requires that stormwater treatment measures be properly installed, operated, and maintained.

In addition to water quality controls, the MRP requires new development and redevelopment projects that create or replace one acre or more of impervious surface to manage development-related increases in peak runoff flow, volume, and duration, where such hydromodification is likely to cause increased erosion, silt pollutant generation, or other impacts to local rivers, streams, and creeks.

Projects may be deemed exempt from these requirements if they do not meet the minimum size threshold, drain into tidally influenced areas or directly into the Bay, or drain into hardened channels, or if they are infill projects in subwatersheds or catchment areas that are greater than or equal to 65 percent impervious.

*San Mateo Countywide Water Pollution Prevention Program*

The San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) is the local agency responsible for the oversight of implementation of the applicable provisions, including Provision C.3, of the MRP by local jurisdictions within San Mateo County.

*San Carlos General Plan*

The 2009 General Plan provides the fundamental basis for the City's land use and development policy, and represents the basic community values, ideals and aspirations to govern a shared environment over the life of the General Plan. The General Plan includes the following elements: Land Use; Housing; Circulation and Scenic Highways; Environmental Management; Parks and Recreation; Community Safety and Services; and Noise.

Goals, policies, and actions contained in the Environmental Management, Parks and Recreation, and Community Safety and Services Elements of the General Plan include those pertaining to the City's stormwater system and runoff management. Under State law, the City's General Plan is the

primary planning document, and all other City plans and policies must be consistent with the adopted General Plan.

The General Plan Environmental Management, Parks and Recreation, and Community Safety and Services Elements include the following applicable policies:

*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-5.2:* Promote the use of less toxic household and commercial cleaning materials.

*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-5.7:* Encourage site designs that manage the quantity and quality of storm water run-off.

*Policy PR-4.10:* Integrate stormwater management onsite to the greatest extent possible for all parks facilities.

*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-2.8:* Coordinate with neighboring jurisdictions on approaches to flooding and creek maintenance.

*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.

*San Carlos Municipal Code, Title 13 Public Services, Chapters13.14 and 13.16*

Chapter 13.14, Article II of the San Carlos Municipal Code implements the provisions of the federal Clean Water Act regarding discharge regulations and requirements for the City. It prohibits non-stormwater discharges to the City storm sewer system, and requires any person engaged in activities which will or may result in pollutants entering the City storm sewer system to undertake

all practicable measures to reduce such pollutants. Examples of these activities cited in the ordinance include ownership and use of facilities which may be a source of pollutants such as parking lots, gasoline stations, industrial facilities, commercial facilities, stores fronting City streets, etc. Chapter 13.14, Article II further requires owners of property through which a watercourse passes, or such owner's lessee or tenant, to keep and maintain that part of the watercourse within the property reasonably free of trash, debris, excessive vegetation and other obstacles which would pollute, contaminate or significantly retard the flow of water through the watercourse, and to maintain existing privately owned structures within a watercourse so that they will not become a hazard to the use, function or physical integrity of the watercourse. It also prohibits the property owner, tenant or lessee from removing healthy bank vegetation beyond what is necessary for maintenance, and from removing vegetation in such a manner as to increase the vulnerability of the watercourse to erosion. Article III establishes the City's power of inspection enforcement of these regulations.

Chapter 13.16 describes the provisions allowing the City to collect storm drainage fees pursuant to Health and Safety Code Section 5471 et seq., on the tax roll. The fees are to be used only for the acquisition, construction, reconstruction, maintenance and operation of storm drainage facilities or programs, or to repay principal and interest on bonds issued for the construction or reconstruction of said storm drainage facilities, or to repay federal or state loans or advances made to the City for the construction or reconstruction of storm drainage facilities. (Ord. 1184 § 2 (part), 1995: Ord. 1153 § 2 (part), 1994).

### Electricity and Natural Gas

<u>State</u>

*Senate Bill 100*

Officially titled, "The 100 Percent Clean Energy Act of 2018," Senate Bill 100:

- Sets a 2045 goal of powering all retail electricity sold in California and state agency electricity needs with renewable and zero-carbon resources — those such as solar and wind energy that do not emit climate-altering greenhouse gases.
- Updates the state's Renewables Portfolio Standard to ensure that by 2030 at least 60 percent of California's electricity is renewable.
- Requires the Energy Commission, Public Utilities Commission and Air Resources Board to use programs under existing laws to achieve 100 percent clean electricity and issue a joint policy report on SB 100 by 2021 and every four years thereafter.

Local

*San Carlos Municipal Code Section 15.04.080*

San Carlos has adopted a reach code creating local energy standards to electrify new construction and achieve greenhouse gas reduction goals. The local amendments to the California Energy Code and Green Building Code require:

- New construction of all building types to be all-electric, with exceptions
- Rooftop solar in non-residential and high-rise residential buildings
- Electric vehicle charging readiness for all building types

**Solid Waste**

State

*Integrated Waste Management Act of 1989*

The California Integrated Waste Management Act of 1989, also known as AB 939, requires that each city or county prepare a new integrated waste management plan. The act also required each city to prepare a Source Reduction and Recycling Element by July 1, 1991. Each Source Reduction and Recycling Element includes a plan for achieving a solid waste goal of 25 percent by January 1, 1995, and 50 percent by January 1, 2000. In 2011, AB 341 was passed, which directs the California Department of Resources Recycling and Recovery to require local agencies to include strategies to enable the diversion of 75 percent of all solid waste by 2020.

*California Department of Resources, Recycling, and Recovery (CalRecycle)*

CalRecycle oversees, manages, and monitors waste generated in California. It provides limited grants and loans to help California cities, counties, businesses, and organizations meet the State waste reduction, reuse, and recycling goals. It also provides funds to clean up solid waste disposal sites and co-disposal sites, including facilities that accept hazardous waste substances and non-hazardous waste. CalRecycle develops, manages, and enforces waste disposal and recycling regulations, including AB 939 and SB 1016 (see below).

*Assembly Bill 939*

The California Integrated Waste Management Act of 1989, or AB 939, established the Integrated Waste Management Board, required the implementation of integrated waste management plans, and mandated that local jurisdictions divert from the landfill at least 50 percent of solid waste generated beginning January 1, 2000, and divert at least 75 percent by 2010. Projects that would have an adverse effect on waste diversion goals are required to include waste diversion mitigation measures.

*Senate Bill (SB) 1016*

This requires that the 50 percent solid waste diversion requirement established by AB 939 be expressed in pounds per person per day. SB 1016 changed the CalRecycle review process for each municipality's IWMP. The CalRecycle Board reviews a jurisdiction's diversion rate compliance in accordance with a specified schedule. Beginning January 1, 2018, the Board will be required to review a jurisdiction's source reduction and recycling element and hazardous waste element every two years.

*Assembly Bill 341*

AB 341 (2011) sets forth the requirements of the statewide mandatory commercial recycling program for businesses that generate four or more cubic yards of commercial solid waste per week and multi-family dwellings with five or more units in California. AB 341 sets a statewide goal for 75 percent disposal reduction by the year 2020.

*Assembly Bill 1826*

AB 1826 (2014) sets forth the requirements of the statewide mandatory commercial organics recycling program for businesses and multi-family dwellings with five or more units that generate two or more cubic yards of commercial solid waste per week. AB 1826 sets a statewide goal for 50 percent reduction in organic waste disposal by the year 2020.

*Senate Bill 1383*

SB 1383 (2016) establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. The bill grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that at least 20 percent of currently disposed edible food is recovered for human consumption by 2025. On January 1, 2022, CalRecycle's regulations to meet the organic waste reduction targets for 2025 took effect and became enforceable.

*California Green Building Standards Code Compliance for Construction, Waste Reduction, Disposal and Recycling.*

In January 2010, the State of California adopted the California Green Building Standards Code ("CALGreen"), establishing mandatory green building standards for all buildings in California. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resources efficiency, and indoor environmental quality. These standards include the following mandatory set of measures, as well as more rigorous voluntary guidelines, for new construction projects to achieve specific green building performance levels:

- Reducing indoor water use by 20 percent;

- Reducing wastewater by 20 percent;
- Recycling and/or salvaging 65 percent of nonhazardous construction and demolition ("C&D") debris, or meeting the local construction and demolition waste management ordinance, whichever is more stringent (see San Carlos-specific CALGreen building code requirements below); and
- Providing readily accessible areas for recycling by occupants.

Local

*San Carlos General Plan*

The 2009 General Plan provides the fundamental basis for the City's land use and development policy, and represents the basic community values, ideals and aspirations to govern a shared environment over the life of the General Plan. The General Plan includes the following elements: Land Use; Housing; Circulation and Scenic Highways; Environmental Management; Parks and Recreation; Community Safety and Services; and Noise.

Goals, policies, and actions contained in the Environmental Management Element of the General Plan include those pertaining to solid waste disposal and management. Under State law, the City's General Plan is the primary planning document, and all other City plans and policies must be consistent with the adopted General Plan.

The General Plan Environmental Management Element includes the following applicable policies:

> *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.
>
> *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.

*San Carlos Climate Mitigation and Adaptation Plan*

The San Carlos CMAP includes a goal to transform San Carlos into a zero-waste community. The CMAP includes waste reduction strategies geared toward City operations and public events, waste haulers, and construction contractors, and actions that encourage community material reuse and repairs programs, compostable food service ware, increased composting, improved recycling, and sustainable food consumption. CMAP strategies aimed at reducing construction and demolition waste include:

- Incentivize the recycling of construction debris by working with regional partners.

- Research and consider providing financial incentives to encourage the recycling of construction debris.

- Determine how certain construction materials may be donated and reused to help those in need by working with local community based organizations and construction companies.

*San Carlos Recycling and Diversion of Construction and Demolition Debris Ordinance*

Chapter 8.05 of the San Carlos Municipal Code requires projects that qualify for coverage under CALGreen that generate waste comprised of mixed debris, including both structural debris (e.g., wood, metal, wallboard) and inert materials (dirt, asphalt, brick, and/or cinderblock), to divert at least 60 percent of all generated tonnage. All project applicants are required to submit a properly completed "waste management plan" (WMP) to the City Department of Planning and Building's WMP Compliance Official, as a portion of the building or demolition permit process. The completed WMP must indicate, at minimum, all of the following:

- The estimated volume or weight of project construction and demolition debris, by materials type, to be generated;
- The maximum volume or weight of such materials that can feasibly be diverted via reuse or recycling;
- The vendor or facility that the applicant proposes to use to collect or receive that material; and
- The estimated volume or weight of construction and demolition debris that will be land filled.

Project contractors are required to keep records in tonnage or in other measurements approved by the WMP Compliance Official. Project applicants must also pay and administrative fee and submit a deposit for each estimated ton of construction and/or demolition debris that equals no less than one thousand dollars (the deposit). The deposit is returned to the project applicant upon proof to the satisfaction of the WMP Compliance Official that no less than the required percentages of the waste tonnage of construction and demolition debris generated by the project have been diverted from landfills and have been recycled or reused or stored for later reuse or recycling.

*San Carlos Mandatory Organic Waste Disposal Reduction Ordinance*

Chapter 8.60 of the San Carlos Municipal Code implements the provisions of AB 1826, which requires businesses and multi-family complexes (with five or more units) that generate specified amounts of organic waste (compost) to arrange for organics collection services. The ordinance contains requirements for single-family organic waste generators, multifamily residential dwellings, and Tier One and Tier Two commercial businesses. Under the ordinance, a Tier One commercial edible food generator is defined as a commercial edible food generator that is either a supermarket, a grocery store with a total facility size equal to or greater than 10,000 square feet, a food service provider, a food distributor, or a wholesale food vendor. A Tier Two commercial edible food generator is defined as either a restaurant with 250 or more seats (or a total facility size

equal to or greater than 5,000 square feet, a hotel with an on-site food facility 200 or more rooms, a health facility with an on-site food facility and 100 or more beds, a large venue, a large event, a State agency with a cafeteria with 250 or more seats or total cafeteria facility size equal to or greater than 5,000 square feet, or a local education agency facility with an on-site food facility.

### 4.15.3 Thresholds of Significance

Per the CEQA Guidelines, implementation of the project would have a significant impact related to utilities and service systems if it would:

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

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

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the projected demand in addition to the provider's existing commitments;

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or

e) Not comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

### 4.15.4 Impacts and Mitigation Measures

This section describes utility impacts which could result from the implementation of the project and recommends mitigation measures, as needed, to reduce significant impacts.

***Impact UTS-1 – The project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. (Less Than Significant Impact)***

**Analysis of Impacts**

Development associated with implementation of the project would result in increased demand for utility services. This growth could require the expansion of existing utility infrastructure to accommodate new development. The proposed project does not include any specific proposals for new utility facilities, and all future infrastructure projects subject to CEQA would be required to undergo project specific environmental review t to evaluate impacts at the time of their proposal.

Water

As described above, the project area is served by two local domestic water providers: the California Water Service Company (Cal Water) and the Mid-Peninsula Water District. All the housing inventory sites identified within the Housing Element Update are within the Cal Water Mid-Peninsula District service area.

The proposed Housing Element and Environmental Safety and Public Services Element contain the following goals, policies, and actions relevant to this analysis:

> *Action HOU-1.2* - Residential Rehabilitation Programs. As CDBG funds are available through San Mateo County Consortium, provide grants or loans to Low and moderate-income households for the rehabilitation of residences. Examples of eligible repairs and improvements include but are not limited to energy efficiency and water conservation improvements, removal of impediments and material barriers that obstruct accessibility, roofing, plumbing repairs, electrical repairs, exterior painting, window replacement, seismic and flooding safety repairs/adaptations, and climate resiliency adaptations.

*Goal ESPS-13* - Ensure adequate public services and high-quality design of public facilities to make San Carlos as safe, enjoyable, and quality community in which to live, work and shop.

> *Policy ESPS-13.2:* Establish and regularly monitor levels of service of San Carlos' public facilities and services.
>
> *Policy ESPS-13.4:* Work with all special districts, including the school districts, to ensure that development within the city is coordinated with provision of services.
>
> *Policy ESPS-13:* Approve rezoning and development permits only when adequate services are available, or when a program to provide services has been approved by the applicable district and the City.
>
> *Policy ESPS-13.9:* Ensure that adequate public services and facilities are planned and constructed to accommodate the population of the city.
>
> *Action ESPS-13.1:* Define acceptable service levels for San Carlos' public facilities and services.
>
> *Action ESPS-13.2:* Annually update the City's long-range Capital Improvements Program. The Program shall continue to address all City facilities that are included in the development impact fee program, facilities needed to solve existing deficiencies and to accommodate projected growth and shall include a funding and phasing program for provision of facilities in not less than five-year increments through the end of the updated planning period. Encourage all special districts serving San Carlos to do the same.

Cal Water, as the water supplier, is required to prepare a UWMP, which provides a framework for long term water supply and evaluates existing water conservation efforts. The UWMP is required to be updated every five years. As described in the UWMP, Cal Water Mid-Peninsula District is expected to have adequate water supplies during normal years to meet its projected demands through 2045, but is expected to experience shortfalls during single dry and multiple dry year conditions as a result of Bay-Delta Plan Amendment implementation. Currently there are uncertainties regarding the implementation of the Bay-Delta Plan Amendment and the resultant allocation of the available supply to the District. Cal Water has developed a Water Shortage Contingency Plan to address potential water shortage conditions.

Given the projections associated with the RHNA, which would result in more development than was projected in the UWMP, it is possible that new or expanded facilities may be needed to meet water demand. Any future expansion of existing facilities or construction of new facilities would be required to undergo environmental review pursuant to CEQA. Water-related impacts would be identified, along with measures to mitigate any significant impacts, as part of the CEQA compliance process for future project-specific proposals. This potential impact would be considered less than significant.

Wastewater

The SVCW WWTP has a capacity to treat 29.5 MGD, but currently receives approximately 20.0 MGD from customers in the SVCW service area. As described in the General Plan EIR, of the total capacity, the City of San Carlos is allocated a total treatment capacity of 4.47 MGD. The San Carlos flow wastewater projection for residential and existing non-residential uses by the year 2035 is 3.16 MGD, which would result in 1.31 MGD of capacity remaining within San Carlos allocation.

While there would likely be existing wastewater facility capacity to treat the additional demand associated with the proposed project, this facility serves other jurisdictions as well and it is possible that new or expanded facilities may be needed to meet wastewater demand. Any future expansion of existing facilities, or construction of new facilities, would be required to undergo environmental review pursuant to CEQA. This potential impact would be considered less than significant.

Stormwater Drainage

As the majority of development associated with implementation of the proposed project would occur within already developed urban areas, there would not be a substantial increase in impervious surfaces associated with implementation of the project. Any new development would need to adhere to applicable permit requirements, including the new development provisions of the MRP that limit impervious surface area and require the implementation of on-site runoff treatment measures. This potential impact would be considered less than significant.

Electricity, Natural Gas, and Telecommunications

The potential increase in population associated with implementation of the project could create the potential need for new or upgraded electric power, natural gas, and telecommunication facilities. These projects, if proposed, would need to comply with adopted, mandatory environmental regulations, including CEQA. This potential impact would be less than significant.

***Impact UTS-2 – The proposed project would not have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry year. (Less Than Significant Impact)***

The most recent UWMP for the project area was prepared in June 2021. The Cal Water Mid-Peninsula District's water service area does not include all areas of the City, but does include the inventory sites identified within the Housing Element Update. The projected population used within the existing UWMP is based on 2040 population, housing, and employment projections developed by ABAG; these projections identified an increase of 335 housing units over the next 20 years.

Since preparation of the UWMP, ABAG projections have been updated for 2050 (Plan Bay Area 2050) and the RHNA has been identified for each jurisdiction. The City of San Carlos's RHNA, including additional buffer units, is 3,595 units, which is more units than were evaluated within the current UWMP. As such, it is likely that implementation of the project would result in more demand for water than what was considered in the current UWMPs. The project is expected to require an additional 826,500 gallons per day or 825.8 acre-feet per year. Future updates to the Cal Water Mid-Peninsula District UWMP would need to reflect the updated projections associated with the project. As noted above in the regulatory section, Government Code §65589.7 requires new Housing Elements be provided to water and sewer services providers immediately upon adoption so they may be accounted for in the next UWMP.

The General Plan does include several water supply policies including:

> *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-5.8:* Work with water service providers to provide high quality domestic water.
>
> *Policy EM-5.10:* Require the evaluation of potential groundwater depletion that could occur from new development through dewatering.

In addition, the Environmental Safety and Public Services Element Update includes Policies ESPS-13.4, ESPS-13.8, and ESPS-13.9, as listed above in the response under Impact UTS-1, including approving developments only when adequate services are available, or when a program to provide services has been approved by the applicable district and the City and coordination with service providers for adequate service.

Furthermore, as specific projects are proposed within the project area, potential water-related impacts would be evaluated and identified, along with measures to mitigate any significant impacts, as part of the CEQA compliance process for future project-specific proposals. In adherence with SB 610, any new development project subject to CEQA that meets specific development specifications, such as residential development with over 500 dwelling units, would need to complete a Water Supply Assessment (WSA).

These policies and planning procedures ensure future projects do not result in significant impacts to water supply.

***Impact UTS-3 – The project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the projected demand in addition to the provider's existing commitments. (Less Than Significant Impact)***

The SVCW WWTP has a capacity to treat 29.5 MGD, but currently receives approximately 20.0 MGD from customers in the SVCW service area. As described in the General Plan EIR, of the total capacity, the City of San Carlos is allocated a total treatment capacity of 4.47 MGD. The San Carlos flow wastewater projection for year 2035 is 3.16 MGD, which would result in 1.31 MGD of capacity remaining within San Carlos allocation. If it is assumed that each residential unit associated with implementation of the Housing Element Update had a wastewater generation rate of 160 GPD (gallons per day), this would result in generation of approximately 575,200 GPD of wastewater. This would fall within the 1.31 MGD capacity remaining within the San Carlos allocation.

Furthermore, as specific projects within the project area are proposed, potential wastewater system-related impacts would be evaluated and identified, along with measures to mitigate any significant impacts, as part of the CEQA compliance process for future development proposals.

All new development and redevelopment would be required to pay applicable sewer connection and capacity charges. As described in Section 13.04.025 of the Municipal Code, the purpose of the sewer capacity charge is to recover costs for the City's sewer system infrastructure and assets that provide benefit to (1) new connections to the sanitary sewer system, and (2) existing sanitary sewer connections that increase wastewater discharge, such as due to redevelopment or changes in property use. These charges are used to pay for improvements and expansion of sewer facilities, including the wastewater collection system, and any other purpose allowed by State and Federal law.

It should be noted that this wastewater facility serves other jurisdictions as well, and it is possible that incremental increases in demand, as anticipated under the project, and in conjunction with increased demand for other communities, could result in the need for future new or expanded wastewater treatment facilities. These projects, if proposed, would need to comply with adopted, mandatory environmental regulations, including CEQA. This potential impact would be considered less than significant.

***Impact UTS-4 – 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. (Less Than Significant Impact)***

The City would continue to implement a variety of solid waste reduction, recycling, and reuse measures to meet its obligation under AB 939.

Implementation of the project would result in an increase in residential units within the city, and an associated increase in solid waste generation. In order to estimate solid waste generation associated with implementation of the project, a per-capita waste generation rate of four pounds per day per resident was used. Implementation of the proposed project is estimated to result in a population increase of approximately 9,240 residents, and the net new waste generated associated with the increase in residents would be 36,960 pounds per day or 6,745 tons per year.

The Corinda Los Trancos Landfill (Ox Mountain) currently has a throughput limit of 3,598 tons per day and is expected to remain operational through 2034.[12] The increase in solid waste associated with implementation of the project would be less than one percent of the landfill's daily capacity. As this facility does provide service to other jurisdictions, there is a possibility of exceeding the landfill's capacity. Any proposed new or expanded solid waste facility would need to comply with adopted, mandatory environmental regulations, including CEQA. This potential impact would be less than significant.

***Impact UTS-5 – The proposed project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. (Less Than Significant Impact)***

Any individual future project completed under the proposed Focused General Plan Update would be required to comply with all applicable federal, state, and local statues and regulations related to solid waste management and reduction. This impact would be less than significant.

### 4.15.5 References

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# 4.16 WILDFIRE

## 4.16.1 Environmental Setting

San Carlos' foothill neighborhoods west of Alameda de las Pulgas are designated Very High Fire Hazard Severity Zones (VHFSZ) by the California Department of Forestry and Fire Protection (CAL FIRE). Fire protection in California is the responsibility of either the federal, state, or local government. In State Responsibility Areas (SRA), which are defined according to land ownership, population density, and land use, CAL FIRE has a legal responsibility to provide fire protection. Local Responsibility Areas (LRA) include incorporated cities and cultivated agriculture lands. In LRA, fire protection is provided by city fire departments, fire protection districts, or counties, or by CAL FIRE under contract to local government. All VHFHZ areas in San Carlos are in LRA.

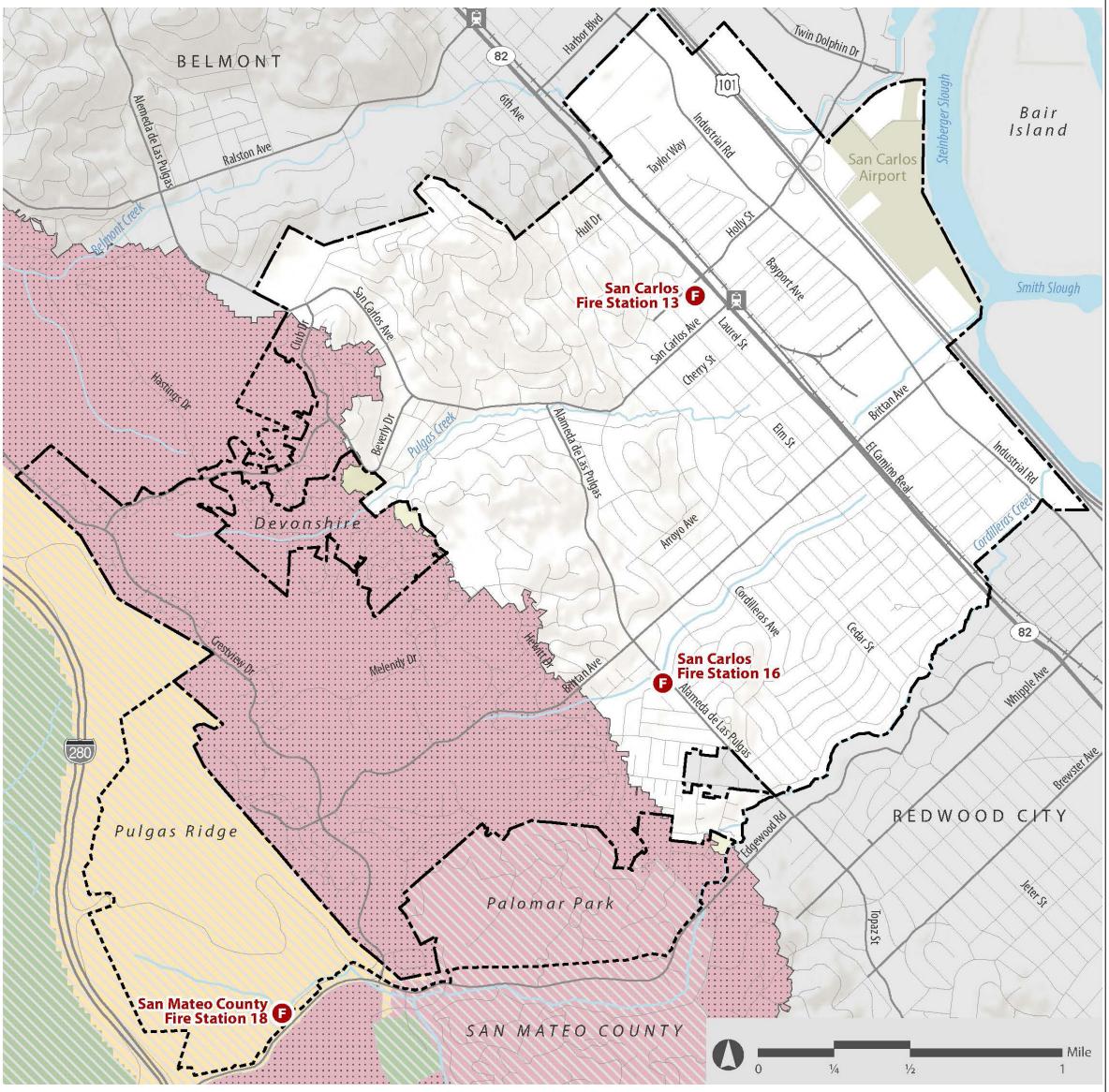
The Heather Elementary School and many homes in the western hills are located within the VHFSZ. Other nearby schools include Carlmont High School, Tierra Linda Middle School, Mariposa Upper Elementary School, and San Carlos Charter Learning Center. Additionally, the Bayview Villa, an assisted living community, is within the unincorporated Devonshire Area. Several California Water Services (Bay Area Region) water tanks are located in the western hills, including at the intersection of Los Vientos Way and Crestview Drive, off of Crestview Drive near Crestview Park, on Melendy Drive near Crestview, on Melendy Drive near Heather School, and off of Heather Drive near Melendy Drive.

San Carlos fire service is provided under contract by the City of Redwood City Fire Department. It provides fire protection, hazardous materials response, disaster preparedness, and emergency medical response. CAL FIRE has a legal responsibility to provide fire protection to all within the State Responsibility Area. A portion of the San Carlos Sphere of Influence is under the SRA.

Portions of unincorporated San Mateo County (Devonshire and Palomar Park) are within the City's SOI, see Figure 4.16-1. While these unincorporated pockets are within the City's SOI, they are subject to the planning goals, policies, and actions, land use and zoning of the San Mateo County General Plan. Wildfire and other safety hazards associated with development within unincorporated County lands would be addressed in the San Mateo County Safety Element.

### Emergency and Disaster Preparedness

As required by State law, the City of San Carlos has established emergency preparedness procedures to respond to a variety of natural and built environment disasters that could affect the community. In the event of an emergency, the City will respond according to the Standardized Emergency Management System (SEMS) developed by the State. The SEMS system establishes a hierarchy of response, with local government as the first responders. If San Carlos does not have sufficient resources to respond to a disaster, the County of San Mateo would lend resources. Mutual Aid agreements between various agencies would be enacted all the way to the State level.




**Fire Hazard Severity Zones**

- Moderate
- High
- Very High
- Local Responsibility Area (LRA)
- State Responsibility Area (SRA)
- Fire Station

All fire hazard severity zones within San Carlos city limits are within the San Carlos Local Responsibility Area for fire emergency response. All other fire hazard severity zones illustrated in this map are within the State Responsibility Area or other Local Responsibility Areas.

**Base Map Features**

- City of San Carlos Boundary
- Sphere of Influence
- Major Streets
- Streets
- Caltrain Railroad and Stations
- Surrounding Jurisdictions
- Parks and Open Space
- Waterbodies
- San Carlos Airport

August 2020

Sources: United States Census Bureau, 2019. State of California Department of Forestry and Fire Protection, City of San Carlos, County of San Mateo, Urban Footprint, 2020.

*Source: MIG, 2022*

**Figure 4.16-1** Wildfire Hazards

*Focused General Plan Update*

MIG

San Carlos established an Emergency Operations Center (EOC) program in 1987. The Emergency Response Plan establishes evacuation routes, identifies agencies responsible for emergency response and summarizes and assesses potential threats and hazards. Additionally, as required by California Government Code 3100, all City employees will report to City Hall, after ensuring the welfare of their families, to assist in emergency response in the event of a disaster.

The San Mateo County Department of Emergency Management (DEM) coordinates countywide preparedness, response, and protection services and activities for large-scale incidents and disasters. The DEM is responsible for alerting and notifying appropriate agencies within the county's 20 cities when disaster strikes; coordinating all agencies that respond; ensuring resources are available and mobilized in times of disaster; developing plans and procedures in response to and recovery from disasters; and developing and providing preparedness materials for the residents. DEM also maintains the County's Regional Operations Center and provides a duty officer on a 24-hour basis to address county, local, and State officials on matters of potential or escalating emergency conditions. The Emergency Services Council, which consists of a representative from each of the 20 incorporated cities and a member of the County Board of Supervisors, governs the DEM.

SMC Alert

SMC Alert is a software application used to send emergency alerts, notifications, and updates to cell phones, mobile devices, home phones, work, and/or e-mail accounts. In the event of an emergency, public safety agencies such as the City of San Carlos are able to provide emergency information directly to the community. These messages provide the community with instructions, orders, and updates.

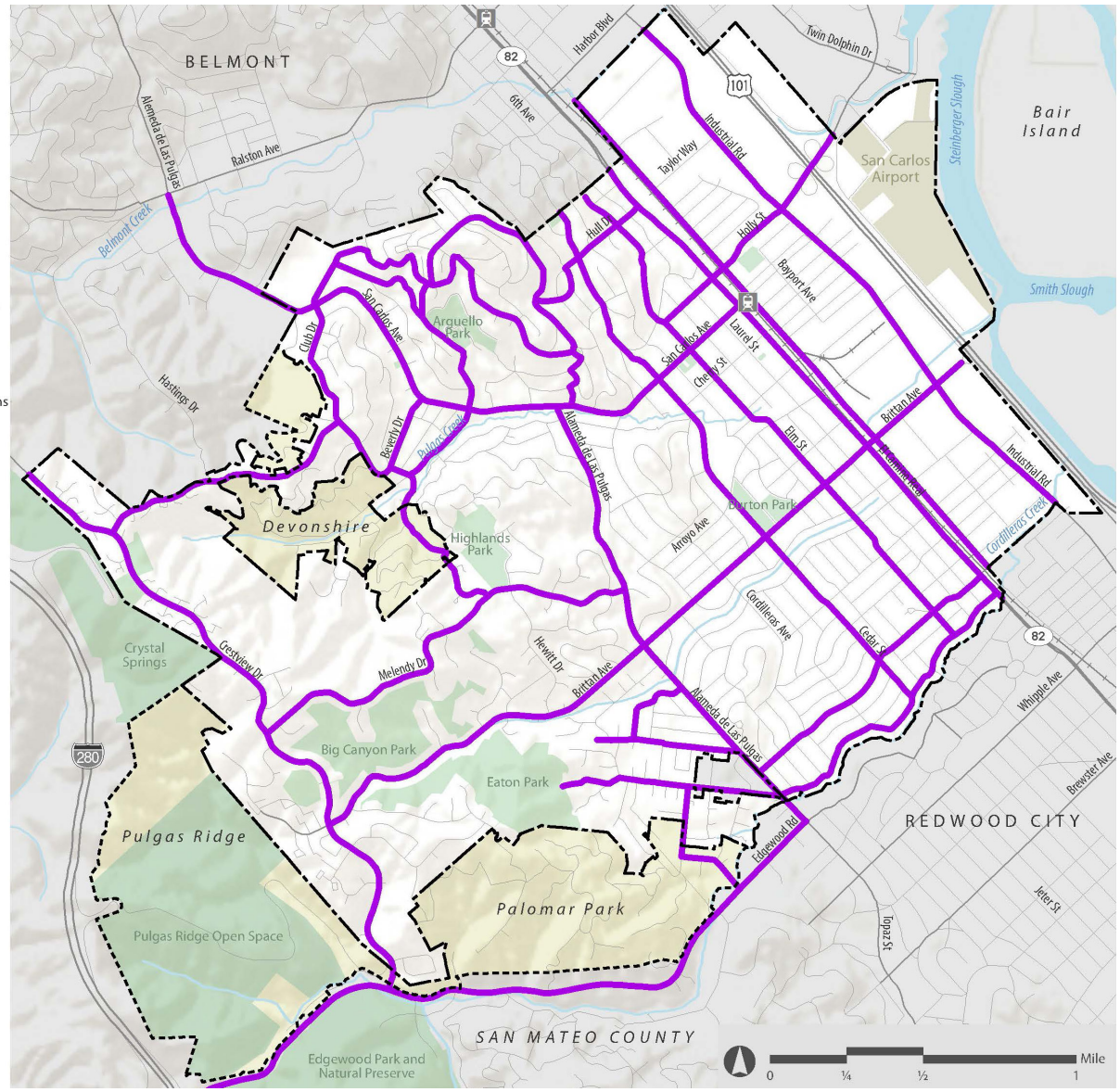
The SMC Alert system is managed by the DEM. The service is free to all and is available to all cities, towns, and special districts within San Mateo County. Alerts may also be sent by local fire, police, and emergency operations managers from other cities within San Mateo County. Alert types may include life safety, fire, weather, accidents involving utilities, or roadway or disaster notifications.

Zonehaven

San Carlos implements the San Mateo County's Zonehaven evacuation system. Zonehaven determines the most efficient and effective evacuation routes based on the emergency type and location. Evacuation routes will vary; however, Figure 4.16-2 identifies the roadways most frequently used for evacuations.

Landslide

When a wildfire burns the vegetation that helps to stabilize slopes, hillsides may be more likely to slide. Rainstorms that occur following wildfires can potentially destabilize slopes further, leading to post-fire debris flows.




**Evacuation Routes**

**Base Map Features**

- City of San Carlos Boundary
- Sphere of Influence
- Major Streets
- Streets
- Caltrain Railroad and Stations
- Surrounding Jurisdictions
- Parks and Open Space
- Waterbodies
- San Carlos Airport

January 2022
Sources: United States Census Bureau, 2019.
City of San Carlos, County of San Mateo, Urban Footprint, 2020.

*Source: MIG, 2022*

**Figure 4.16-2** Evacuation Routes

*Focused General Plan Update*

Chapter 4.6 Geology presents Figure 8-5 of the proposed Environmental Safety and Public Services Element, which shows the landslide hazards areas in San Carlos. The best predictor of where slides might occur is the location of past movements. Landslides occur on some of the upper hilly slopes, more commonly in the northwestern area of the City.

### 4.16.2 Regulatory Setting

**Federal Regulations**

Federal Disaster Mitigation Act of 2000

The Disaster Mitigation Act of 2000 authorizes the Federal Emergency Management Agency (FEMA) to set mitigation planning requirements for state, local, and Indian Tribal governments as a condition of mitigation grant and disaster assistance, and requires close coordination of mitigation planning and implementation efforts between FEMA and jurisdictions.

Healthy Forest Restoration Act of 2003

This Act calls for preparation of Community Wildfire Protection Plans (CWPP) as planning and funding prioritization tools to create incentives for communities to engage in comprehensive fire hazard planning and to help define and prioritize local needs.

**State Regulations**

California Department of Forestry and Fire Protection (CAL FIRE)

CAL FIRE protects life and property through fire prevention engineering programs, law and code enforcement and education. CAL FIRE identifies areas within LRAs and recommends fire hazard severity zones; CAL FIRE also designates fire hazard severity zones for areas within SRAs. Cal FIRE will review and approved the City's wildfire section of the Environmental Safety and Public Services Element.

California Climate Adaptation Strategy (2021)

The California Climate Adaptation Strategy is formulated to strengthen protections for climate vulnerable communities. Part of this Strategy relates to wildfire risk and prevention, such as improving and refining quantitative wildfire risk assessments across California to identify the most wildfire vulnerable communities and populations; supporting wildfire prone communities by expanding the Regional Forest and Fire Capacity Program and increasing local and regional government capacity to build and maintain projects to improve forest health and prevent wildfire; and reducing health impacts of wildfire smoke (including improving wildfire smoke guidance for schools, children, and other vulnerable populations). The Strategy also identifies the need to reduce risk from energy infrastructure-related ignitions that can lead to wildfire. In addition, the Strategy promotes "climate smart" forest management – such as reintroducing prescribed fire onto landscapes – as a means to reduce the threat of wildfire; supports increase in the pace and scale of wildfire resilience and forest health projects; and calls for reducing wildfire risks through increased

use of fuel breaks and fuels reduction and expediting the permitting of wildfire resilience projects using exemptions or the California Vegetation Treatment program.

General Plan Safety Element Review: Government Code 65302.5

The Board of Forestry and Fire Protection must provide recommendations to a local jurisdiction's general plan safety element at the time that the general plan is being amended. Board recommendations include goals and policies that provide for contemporary fire-prevention standards for the jurisdiction. This is not a direct and binding fire prevention requirement for individuals.

Sprinkler Systems: California Residential Code, Chapter 3, Section R313

All new dwellings, dwelling units, and one- and two-family townhomes must be equipped with an automatic fire-sprinkler system that can protect the entirety of the dwelling. Dwellings and homes constructed prior to January 1, 2011 that do not have a sprinkler system may be retrofitted, but it is not required.

Fire Safety Standards: California Public Resources Code 4290 and 14 California Code of Regulations (CCR) 1270

These regulations govern roads, driveway width, clearance, turnarounds, signing, and water related to fire safety throughout California. Public Resources Code 4290 is typically enacted through regulation at the county level, as described below.

Wildland-Urban Interface Building Standards: California Government Code 51189

The Office of the State Fire Marshal is required to create building standards for wildfire resistance. Construction of buildings in the wildland-urban interface must use fire-resistant materials to save life and property. As of 2011, the standards relevant to fire-safe construction for all new structures in the SRA are the California Building Code, Chapter 7A (for commercial construction) and the California Residential Code, Chapter 3, Section R327 (for residential construction).

Government Code §51175-51189 Fire Safe Regulations: Minimum fire safety standards gives the State Board of Forestry the authority to adopt regulations for minimum fire safety standards applicable to SRA lands under the authority of the department, and to VHFHSZs starting on July 1, 2021. The Fire Safe regulations are codified in CCR, Title 14 (Natural Resources), Division 1.5 (Department of Forestry), Chapter 7 (Fire Protection) under Subchapter 2 (SRA Fire Safe Regulations). These regulations generally address the following:

- Standards for signs identifying streets, roads, and buildings.
- Minimum private water supply reserves for emergency fire use.
- Fuel modification standards for fuel breaks and greenbelts.
- Road and driveway standards for emergency fire equipment access and public evacuation.

State Responsibility Area: Public Resources Code 4102, 4125-4229 and 14 CCR 1220

These statutes and regulations establish the locations where CAL FIRE has the financial responsibility for preventing and suppressing fires. These designations define financial arrangements for fire protection services and establish the locations where fire safe and defensible space laws or regulations apply.

Defensible Vegetation Clearing Around Structures: Public Resources Code 4291/14 CCR 1299

Public Resources Code 4291 regulates fuel management around a property. It states that a person who owns or controls a building or structure in or adjoining to forest, brush, or grass covered lands shall follow certain guidelines outlined in the code. At least 100 feet of defensible space is required. The owner of the property is liable for making these changes to protect habitable structures. The 100 feet is separated into two zones, with the closer zone, 30 feet out from the structure, being managed more intensively.

AB 38 (2019) California Wildfire Mitigation Financial Assistance Program (Government Code §8654.7 and §8654.10; Public Resources Code §8389.5)

Established a comprehensive wildfire mitigation financial assistance program to encourage cost-effective structure hardening and retrofitting to create fire-resistant homes, businesses, and public buildings. The bill required the State Fire Marshal, in consultation with specified State officials, to identify building retrofits and structure hardening measures, and CAL FIRE to identify defensible space, vegetation management, and fuel modification activities, that are eligible for financial assistance under the program. The bill specifies the types of designated wildfire hazard areas eligible for funding under the program.

AB 1823 (Committee on Natural Resources, 2019) Fire Risk Reduction Communities (Public Resources Code §4290.1)

This bill amended PRC Section 4290.1 to require that, on or before July 1, 2022, the State Board develop criteria for and maintain a list of local agencies considered to be a "Fire Risk Reduction Community" located in the SRA or VHFHSZ, identified pursuant to GC§51178, that meet best practices for local fire planning. Criteria that must be used to develop the Fire Risk Reduction Community list include recently developed or updated CWPPs, adoption of the board's recommendations to improve the Safety Element, participation in Fire Adapted Communities and Firewise USA programs, and compliance with the Board's minimum fire safety standards. For example, any new road in the SRA will need to comply with State regulations governing access. Standards extend to road steepness, curvature, and width.

California Fire Code (California Code of Regulations, Title 24, Part 9)

The City of San Carlos has adopted the 2019 California Fire Code, with amendments to address specific local conditions and needs. These provisions include construction standards and fire

hydrant requirements, road widths and configurations designed to accommodate the passage of fire trucks and engines, and requirements for the handling and storage of hazardous materials.

California Code of Regulations, Title 19

Title 19, chapters one through six of the California Code of Regulations (CCR), establishes regulations related to emergency response and preparedness under CAL Emergency Management Agency.

California Health and Safety Code (Sections 13000 et seq.)

This statute establishes State fire regulations, including regulations for building standards (also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

Recent State Legislative Initiatives

The following are recent State of California legislative initiatives that show the direction the State is taking in proactively addressing increased wildfire risks. They serve as a guide for planning for communities throughout California.

- SB 85: Wildfire Package (Chaptered on April 13, 2021): Includes $536 million to fund projects to restore the ecological health of forests and watersheds, fuel breaks around vulnerable communities, statewide fire prevention grants targeting projects to advance community hardening, and improvements to defensible space to mitigate wildfire damage.
- AB 9: Creates Entity Dedicated to Wildfire Prevention Work and Regional Forest and Fire Capacity (Chaptered on September 23, 2021): Creates new branch in Office of the State Fire Marshal to focus exclusively on community fire prevention, preparedness, and mitigation efforts of CAL FIRE. Supports regional leadership to build local and regional capacity and develop, prioritize, and implement strategies and projects that create fire adapted communities and landscapes by improving ecosystem health, community wildfire preparedness, and fire resilience.
- AB 642: Enhance Fire Prevention Efforts (Chaptered on September 28, 2021): Directs the Director of the Department of Forestry and Fire Prevention to designate moderate and high fire hazard severity zones. Makes changes to State law to enhance wildland fire prevention efforts, including, incorporating, and facilitating cultural burning practices. Also requires the Director of the Department of Forestry and Fire Protection to designate a cultural burning liaison.
- SB 63: Fire Prevention; Vegetation Management (Chaptered on September 28, 2021): Provides for fuel modification beyond the property line if necessary to maintain 100 feet of defensible space, as applicable; would also require State Fire Marshal and Department of Housing and Community Development to consider, if appropriate, expanding

application of fire protection building standards (as specified for building in fire hazard severity zones) to expand application of these building standards to moderate fire hazard severity zones.

- AB 38 (Chaptered on October 2, 2019): California Wildfire Mitigation Financial Assistance Program: Established a comprehensive wildfire mitigation financial assistance program to encourage cost-effective structure hardening and retrofitting to create fire-resistant homes, businesses, and public buildings. The bill required the State Fire Marshal, in consultation with specified State officials, to identify building retrofits and structure hardening measures, and CAL FIRE to identify defensible space, vegetation management, and fuel modification activities, which are eligible for financial assistance under the program. The bill specifies the types of designated wildfire hazard areas eligible for funding under the program. AB 38 also required on or after January 1, 2021, the seller of any real property located in a high or very high fire hazard severity zone to provide a prescribed disclosure notice to the buyer, if the home was constructed before January 1, 2020, of information relating to fire hardening improvements on the property and a list of specified features that may make the home vulnerable to wildfire and flying embers and which features, if any, that exist on the home of which the seller is aware. By July 1, 2025, requires the disclosure notice to also include the State Fire Marshal's list of low-cost retrofits, and a specified final inspection report or information on where a copy may be obtained. Also requires on or after July 1, 2021, specified documentation to the buyer that the real property is in compliance with the wildfire protection measures or a local vegetation management ordinance, or enter into an agreement with the buyer pursuant to which the buyer will obtain documentation of compliance, as provided.
- AB 2911 (Introduced in Assembly, Not Chaptered): Fire Safety included various changes to fire safety planning efforts including:
    - Requires a local agency to transmit a copy of its adopted ordinance designating very high fire hazard severity (VHFHS) zones to the Board of Forestry and Fire Protection (Board);
    - Removes exemptions from requirement that a local agency designate, by ordinance, very high fire hazard severity zones in its jurisdiction within 120 days of receiving recommendations from the director of CAL FIRE;
    - Requires, before July 1, 2020, the Office of Planning and Research to update the guidance document entitled "Fire Hazard Planning General Plan Technical Advice Series" and update not less than once every eight years;
    - Authorizes the Board of Forestry, within 15 days of receipt of notification that its fire prevention recommendations will not be accepted by the local government, to request a consultation, prior to approval of the draft element or amendment, conducted in person, electronically, or by phone; and
    - Requires on or before July 1, 2021, and every five years thereafter, the Board, in consultation with the State Fire Marshal (SFM), to survey local governments to identify

existing subdivisions (more than 30 dwelling units) in State Responsibility Areas (SRA) or Very High Fire Hazard Severity (VHFHS) zones without a secondary egress route that are at significant fire risk.

- SB 99: General Plans: Safety Element (Chaptered on August 30, 2019): Emergency Evacuation Routes requires the safety element of the general plan, upon the next revision of the housing element on or after January 1, 2020, to identify any residential developments in any hazard area that does not have at least two emergency evacuation routes.
- SB 1241: Land Use: General Plan Safety Element: Fire Hazard Impacts (Chaptered on September 13, 2012): Required cities and counties to address fire risk in the State Responsibility Areas (SRA) and Very High Fire Hazard Severity Zone (VHFHSZ) in the Safety Element of their general plans upon the next revision of the housing element and requires cities and counties to make certain findings regarding available fire protection and suppression services before approving a tentative map or parcel map. Requires review of Draft Safety Element by the Board of Forestry and CAL FIRE Land Use Planning Program staff, as well as to every local fire agency having jurisdiction.
- SB 1260: Fire Prevention and Protection (Chaptered on September 21, 2018): Promoted long-term forest health and wildfire resiliency. It made various changes related to local fire planning, prescribed fire requirements, and broader fire prevention efforts, including the following:
    - Requires a local agency to transmit a copy of its adopted ordinance designating VHFHS zones to the Board of Forestry and Fire Protection within 30 days of adoption;
    - Removed exemptions from the requirement that a local agency designate, by ordinance, VHFHS in its jurisdiction within 120 days of receiving recommendations from the director of CAL FIRE;
    - Authorizes the Board to recommend changes to a planning agency's safety element for methods and strategies accepted as best practices in the most recent guidance document entitled "Fire Hazard Planning, General Plan Technical Advice Series";
    - Requires a city or county that contains either SRA or VHFHS zones to notify the Board if it adopts or amends the safety element of its general plan; and
    - Requires, upon approving a tentative map or a parcel map for an area located in either the SRA or VHFHS zone, the local agency to transmit a copy of the minimum fire safety standards findings required and accompanying maps to the Board.

## Regional Regulations

San Mateo County Multi-Jurisdictional Local Hazard Mitigation Plan (2021)

The San Mateo County Department of Emergency Management is responsible for alerting and notifying appropriate agencies within the county's 20 cities (including San Carlos) when disaster strikes; coordinating all agencies that respond, ensuring resources are available and mobilized in

times of disaster, developing plans and procedures in response to and recovery from disasters, and developing and providing preparedness materials for residents. In 2021, the San Mateo County Department of Emergency Management published a Multi-Jurisdictional Local Hazard Mitigation Plan, a large regional and cross-jurisdictional effort to plan for the reduction of risk from natural and other disasters.

The Local Hazard Mitigation Plan (LHMP) assesses hazard vulnerabilities and identifies mitigation actions that jurisdictions will pursue in order to reduce the level of injury, property damage, and community disruption that might otherwise result from such events. The LHMP addresses natural and human-caused hazards, including flooding, drought, wildfire, landslides, severe weather, terrorism, cyber threats, pandemic, and the impact of climate change on hazards, as well as other hazards.

Adoption of the Plan ensures the County and partner agencies remain eligible for various types of pre- and post-disaster community assistance, such as grants, from FEMA and the State government.

The City of San Carlos is a planning partner with San Mateo County and has assumed responsibility for adopting the recommendations of the plan and committing resources toward implementation of the action plan specific to San Carlos.

San Mateo County Fire Protection Regulations

Chapter 3.84 of the San Mateo County Code, Fire Protection Regulations, adopts the California Fire Code by reference and sets forth fire protection regulation pertinent to local conditions. Section 3.84.100 requires fuel breaks around buildings of at least 30 feet, while considering the retention of existing landscaping and sensitive natural habitats. Section 3.84.120 requires compliance with the California Fire Code when constructing, relocating or altering a building. Other sections of the Chapter include revisions to the California Fire Code regarding emergency vehicle access; fire alarms, hydrants and sprinklers; construction and other issues.

Santa Cruz and San Mateo County Community Wildfire Protection Plan (2018)

The joint, Santa Cruz and San Mateo County Community Wildfire Protection Plan was updated in 2018. It is a tool for communities to identify landscape scale hazards and take strategic action to reduce wildfire risk for healthier ecosystems and more resilient communities. The plan assesses hazards and priorities within the two counties, identifies at-risk communities, and provides fuel reduction recommendations for high priority areas. The intent of the plan is to foster collaboration between communities for local action and to assist in planning, providing general guidelines to develop site-appropriate projects. The Community Wildfire Protection Plan can also aid communities to apply for state and federal funding for fire prevention projects and programs.

## Local

San Carlos Climate Mitigation and Adaptation Plan (2021)

The 2021 Climate Mitigation and Adaptation Plan (CMAP) aims to reduce City-wide emissions 40% by 2030 and 80% by 2050 relative to 1990 levels and identifies strategies to achieve those targets. In addition, the CMAP recognizes the potential climate change impacts and vulnerabilities in the community and identifies strategies that support climate adaptation and resilience.

Sections of the Safety Element are supplemented by the CMAP, which is incorporated by reference, as allowed by California Government Code Section 65302(g).

San Carlos Safety Element Vulnerability Assessment

As required by California Senate Bill (SB) 379, adopted in 2015, a jurisdiction's General Plan Safety Element must contain relevant climate adaptation and resiliency strategies. The Safety Element update must include the preparation of a Vulnerability Assessment that identifies the specific risks that climate change poses to the local jurisdiction. The 2021 San Carlos Safety Element Update Vulnerability Assessment includes an assessment of: (1) the community's exposure to past, current, and projected climate hazards, and (2) responsible agencies and their ability to respond and address climate change impacts.

San Carlos Emergency Operations Plan (*DRAFT, unpublished*)

The Emergency Operations Plan provides the framework, concepts, and policies of San Carlos's emergency procedures and operations to ensure effective management and coordination of the City's response to emergencies and disasters. It identifies roles and responsibilities for various individuals and departments related to preparedness, response, recovery, and mitigation activities. The plan serves as a foundational document for other City plans, as well as a reference document for other government and non-government organizations and entities. It is intended to be used in concert with other related plans, such as mitigation, recovery, and continuity of operations to facilitate emergency response and short-term recovery functions for emergencies and disasters which are outside of the scope of normal City operations. This plan is regularly reviewed and updated by staff and approved by the City Council.

San Carlos General Plan

The following are the currently adopted General Plan policies related to wildfire and emergency response in the Community Safety and Services Element.

*Goal CSS-3:* Protect lives and property from risks associated with fire-related emergencies.

> *Policy CSS-3.1:* Evaluate fire response needs of the Fire Department as new development and redevelopment continues within city limit.

*Policy CSS-3.2:* Participate in fire prevention and life safety programs with neighboring jurisdictions and other governmental agencies as needed.

*Policy CSS-3.4:* Maintain participation with the Joint Powers Authority Agreement with all fire departments in San Mateo County to ensure required response times for initial emergency deployment personnel and equipment.

*Policy CSS-3.5:* Preserve the local government agreement with California Department of Forestry and Fire Protection (CAL FIRE) for responses in the Mutual Threat Zone (MTZ) within the Wildland Urban Interface Areas of the city. Continue to provide BSCFD equipment and personnel under the mutual aid agreement, with the State of California Office of Emergency Service (OES) Region II. This continued "reverse support" enables the City of San Carlos to receive "no cost" statewide mutual aid in the event of a declared large-scale emergency.

*Policy CSS-3.6:* Continue to enforce building code regulations that minimize fire hazards in areas subject to a very high fire severity zone (VHFSZ) risk west of Alameda de las Pulgas and prohibit any structural development in areas where wildland urban fire hazards cannot be mitigated under an agreement addressing alternate means of protection and materials agreement.

*Policy CSS-3.7:* Maintain City-owned open space lands in a manner that minimizes and reduces fire hazard threats to fixed public and private properties, by reducing hazardous vegetation fuels.

*Policy CSS-3.8:* Provide adequate access for fire and emergency service vehicles to new development in hillside areas, as per the International Fire Code and the Urban Wildland Interface Code.

*Policy CSS-3.9:* Support "early review" of proposed development by the Belmont-San Carlos Fire Department and institute impact fees to ensure adequate all-risk fire equipment for the community.

*Policy CSS-3.10:* Continue to require all new development to provide all necessary water service, fire hydrants and road improvements consistent with City standards and the California Fire Code.

*Policy CSS-3.11:* Ensure that in existing developed areas within the city there is an acceptable level of fire safety and emergency medical/paramedic services.

*Policy CSS-3.12:* Incorporate drought-resistant and fire resistant plants in capital improvement projects in areas that are subject to wildland fires.

*Policy CSS-3.13:* Ensure that property owners maintain property in a manner that minimizes fire hazards through the removal of vegetation, hazardous structures and materials and debris as governed under the City Municipal Code for enforcement.

*Action CSS-3.1:* Update the City's Community Wildfire Protection Plan as appropriate.

*Action CSS-3.2:* Enforce the established residential fire sprinkler ordinance.

*Goal CSS*-6: Continue effective emergency response procedures to ensure public safety in the event of natural or man-made disasters.

*Policy CSS-6.1:* Display leadership in the preparation for natural and man-made disasters by taking a proactive rather than a reactive approach.

*Policy CSS-6.2:* Preserve a Basic Emergency Operation Plan consistent with the National Incident Management System (NIMS).

*Policy CSS-6.3:* Maintain City Hall as the Emergency Operations Center (EOC) in San Carlos and provide for fully-functional back up EOC for City staff.

*Policy CSS-6.4:* Coordinate the preparation for natural and man-made disasters with the San Mateo County Office of Emergency Services, neighboring jurisdictions and other governmental agencies.

*Policy CSS-6.5:* Inform the public about disaster preparedness by providing information on supplies, training, evacuation routes, communication systems and shelter locations.

*Policy CSS-6.6:* Make available to the community, programs and resources relating to disaster preparedness.

*Policy CSS-6.7:* Support the efforts of neighborhood and civic organizations to prepare for disasters if City resources are not available.

*Policy CSS-6.8:* Identify and develop communication systems, evacuation methods, shelter locations and other services for special needs populations.

*Policy CSS-6.9:* Evaluate safety service limitations on an annual basis to provide for adequate levels of service.

*Policy CSS-6.10:* Identify potential emergency routes and suggest methods for operational needs for first responders.

*Policy CSS-6.11:* Establish the capability to re-locate critical emergency response facilities such as fire, police and essential services facilities, if needed, in areas that minimize their exposure to flooding, seismic effects, fire, or explosion.

*Policy CSS-6.12:* Develop a procedure to quantify community emergency preparedness levels.

*Action CSS-6.1:* Evaluate the Emergency Operation Plan on an annual basis and revise as needed to promote disaster preparedness.

*Action CSS-6.2:* Coordinate emergency response procedures with acute care medical facilities in San Mateo County to ensure adequate preparedness for hospital patients and staff.

*Action CSS-6.3:* Participate in regional disaster event simulations semi-annually by using the primary EOC and methods for implementing a back-up EOC.

*Action CSS-6.4:* Create a back-up EOC for City staff. Enter into a shared EOC agreement with a neighboring jurisdiction or County in the event City Hall is rendered inoperable as an EOC.

*Action CSS-6.5:* Participate in San Mateo County OES preparedness exercises and disaster simulations.

*Action CSS-6.6:* Encourage City employees through a volunteer program to obtain training in disaster preparedness and basic first aid skills.

*Action CSS-6.7:* Maintain and enhance the community disaster preparedness programs.

*Action CSS-6.8:* Identify the need for community awareness and education programs for residents. Develop programs to respond to identified needs.

*Action CSS-6.9:* Disseminate semi-annually, disaster preparedness information to residents through the City web site, newsletters, e-notify, newspaper articles, or other methods.

*Action CSS-6.10:* Make available multi-language disaster preparedness information.

*Action CSS-6.11:* Identify and program for emergency supplies through the EOC program in public parks.

The project includes updating the 2030 General Plan, including the 2009 Community Safety and Services Element. The new Safety Element is now renamed the Environmental Safety and Public Services Element, and has been updated as necessary to address climate adaptation and resiliency strategies and ensure consistency with the 2021 Multi-Jurisdictional Local Hazard Mitigation Plan. The new wildfire policies will be reviewed and approved by CAL FIRE's Board of Forestry.
The proposed Housing and Environmental Safety and Public Services Elements are contained in Appendix B.

Municipal Code

Municipal Code Title 15.04.110 is the Fire Code which adopts by reference Title 24 Part 9 of the California Code, 2019 Edition, with amendments and modifications, also known as the San Carlos Fire Ordinance. Chapter 49 – Requirements to Wildland-Urban Interface (WUI) Fire Areas,

Section 4901.1 adopts and designates the most recent Very High Fire Hazard Severity Zones map as recommended by the Director of the California Department of Forestry and Fire Protection and retained on file, or via the internet, and made available at the offices of the Fire Chief and Building Official of the City of San Carlos. Buildings and structures shall comply with the provisions as stipulated by the City of San Carlos Building Official, the California Building Code Chapter 7A, or the California Residential Code Section R337.

Municipal Code 15.24.050 – Unlawful Materials, Conditions and Activities states it is unlawful for any landowner or person leasing, occupying, or having charge or possession of any real property in the City to keep, maintain, deposit or perform on such property any of the following:

> D. Overgrown vegetation; dead, decayed, diseased or hazardous trees; weeds and other vegetation likely to harbor rats, vermin or nuisances or that constitute a fire hazard.

The City's Zoning Ordinance is Title 18 within the Municipal Code. Regulations related to wildfire safety within the zoning code are as follows:

*Title 18.12.060* Hillside (H) Overlay District. Building design standards.

- Section D: Underfloors. Areas between the lowest floor and finished grade shall not exceed six feet in height and shall be completely enclosed with fire-retardant materials to prevent exposure to wildfire hazard.
- Section F.3: In areas of potential high fire hazard, exterior building materials shall be fire-retardant.

*Title 18.12.070* Landscaping.

- Section B. Fire Hazards. Fire-resistant, drought-tolerant species shall be used where appropriate to reduce fire hazards.

### 4.16.3 Thresholds of Significance

Based on Appendix G of the State CEQA Guidelines, implementation of the project would have a significant impact related to wildfire if it would:

For projects located in or near state responsibility areas or lands classified as very high fire hazard severity zones, the Focused GPU would have an impact related to wildfire if it would:

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

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

### 4.16.4 Impacts and Mitigation Measures

***Impact WLDFR-1: The project would not substantially impair an adopted emergency response plan or emergency evacuation plan. (Less Than Significant Impact)***

The project consists of amending the General Plan to address housing and environmental safety needs of the community. The updated Environmental Safety and Public Services Element contains the same emergency and disaster preparedness goals, policies, and actions from the previous Community Safety and Public Services Element (Goal 6, Policies CSS 6.1 through CSS 6.12 and Actions CSS 6.1 through CSS 11, but are now renumbered to Goal 7, Policies ESPS 7.1 through ESPS 7.12 and Actions ESPS 7.1 through ESPS 7.11.

The project, including the addition of housing through the updated Housing Element, does not require changes to the Emergency Operations Plan. The majority of new housing is concentrated along El Camino Real and in the downtown area of the city, in already developed urban corridors near identified evacuation routes and away from areas in the western hills where significant wildfire threat exists and where single access roads are concentrated. Per ESPS Goal 3, Land Use Planning Action 4, any future housing in the VHFHSZ would require two points of ingress /egress in addition to meeting all fire safe design requirements as required in the Zoning Ordinance.

Action ESPS-7.1 requires evaluation of the emergency operations plan on an annual basis making revisions as needed to promote disaster preparedness. In addition, as discussed in the Environmental Setting discussion above, the City utilizes SMC Alert to send emergency alerts, notifications, and updates to cell phones, mobile devices, home phones, work, and/or e-mail accounts to quickly and effectively disseminate information to the public. Alert types may include life safety, fire, weather, accidents involving utilities, or roadway or disaster notifications. Additionally, the City implements Zonehaven, the County's evacuation system. The program determines the most efficient and effective evacuation routes based on the emergency type and location. Other relevant policies from the updated Environmental Safety and Public Services Element include:

*Goal ESPS-3* - Agency Coordination: A resilient San Carlos is well prepared to minimize risks associated with wildfire.

> *Policy ESPS-3.1:* Promote and improve, as necessary, inter-jurisdictional consultation and communication regarding disaster or emergency plans of San Carlos with adjacent agencies including but not limited to San Mateo County, Redwood City, Belmont, and CAL FIRE.

*Action ESPS-3.1:* Maintain participation in the Joint Powers Authority Agreement with all fire departments in San Mateo County to ensure required response times for initial emergency deployment personnel and equipment.

*Action ESPS-3.2:* Preserve the local government agreement with California Department of Forestry and Fire Protection (CAL FIRE) for responses in the Mutual Threat Zone (MTZ) within the Wildland Urban Interface (WUI) areas of the city. Continue to provide equipment and personnel under the mutual aid agreement, with the State of California Office of Emergency Service (OES) Region II. This continued "reverse support" enables the City of San Carlos to receive "no cost" statewide mutual aid in the event of a declared large-scale emergency.

*Action ESPS-3.3:* Collaborate with the regional fire agencies on strategies available to maintain defensible space, diverse plant composition (e.g., less combustible native plants), undertake appropriate thinning of vegetation, and maintain fuel breaks without permanently damaging native habitat.

Facilities and Training

*Policy ESPS-3.2:* Conduct annual training for fire, emergency medical, and police staff including cross training with adjacent automatic or mutual aid emergency response departments. Regularly maintain, test, and update training and equipment to meet current standards.

*Policy ESPS-3.3:* Ensure adequate Fire Department resources (fire stations, personnel, and equipment) to meet response time standards, keep pace with growth, and provide a high level of service to the community.

*Action ESPS-3.4:* Continue to work with the Redwood City Fire Department to ensure that fire services are maintained at adequate levels. With subsequent Safety Element updates, assess and project future emergency service needs. Continue to monitor service area to ensure that all San Carlos areas have fire service. Monitor the City of San Carlos' fire protection rating and work with the Redwood City and San Mateo County Fire Departments to correct deficiencies and to ensure ongoing training, including cross training is conducted.

*Action ESPS-3.5:* Train and educate public volunteers in basic fire safety response.

Access and Evacuation

*Policy ESPS-3.14:* Provide adequate evacuation routes and access for fire and emergency service vehicles to all San Carlos areas.

*Policy ESPS-3.15:* Identify and implement measures to mitigate the single access roads, as feasible.

*Action ESPS-3.24:* Identify streets and key intersections that, due to pavement width, hairpin turns, and tight curves, if not cleared of vehicles, may interfere with emergency vehicle access and/or resident evacuation during a fire.

*Action ESPS-3.25:* Identify the potential for street widening and improvement during regular Capital Improvement project maintenance, e.g., utility undergrounding, resurfacing, and American with Disabilities (ADA) compliance.

*Action ESPS-3.26:* Prohibit parking on one or both sides of a street identified as having the potential to interfere with emergency vehicle access and/or resident evacuation during a fire, when Red Flag alerts have been issued.

*Action ESPS-3.27:* Conduct a study to review evacuation routes, their capacity, safety, and viability under a range of emergency scenarios as set forth in AB 747. Determine remedial actions, as appropriate. Update evacuation plans with each update of the Safety Element to address changes in at-risk areas and populations.

*Action ESPS-3.28:* Conduct a study to review evacuation routes, their capacity, safety, and viability under a range of emergency scenarios as set forth in AB 747. Determine remedial actions, as appropriate. Update evacuation plans with each update of the Safety Element to address changes in at-risk areas and populations.

*Goal ESPS-4:* Develop a community that proactively prevents wildfires and protects life, property, and infrastructure from urban and wildfire impacts.

*Policy ESPS-4.1:* Provide public education to promote community awareness and preparedness for self-action in the event of a major disaster or emergency.

*Action ESPS-4.1:* Partner with Redwood City Fire Department, San Mateo Sheriff Department, neighboring cities, regional agencies, local school districts, local businesses, and community organizations to conduct emergency and disaster preparedness exercises that test operational and emergency response plans (including evacuation routes); and prepare and conduct public outreach regarding evacuation procedures and routes and defensible space.

*Action ESPS-4.2:* Identify at-risk populations that would be vulnerable during wildfire evacuations and provide information to the at-risk residents regarding defensible space and evacuation routes.

*Action ESPS-4.3:* Prepare and make available to the public a current map of areas subject to wildland fires as provided by the California Department of Forestry and Fire Protect (CAL FIRE).

*Action ESPS-4.4:* Implement a fire hazards education program to minimize risk for residential, commercial, and institutional uses.

- Provide training opportunities for residents for fuel modification methods, practices, and materials.
- Prepare and distribute two vegetation lists – one identifies recommended vegetation in the VHFSZ and the other identifies prohibited vegetation in the VHFSZ.

*Action ESPS-4.5:* Create and promote enrollment in a San Carlos emergency reverse dial program. Work with vulnerable populations to ensure enrollment.

*Action ESPS-4.6:* Consider establishing an outdoor warning system in the VHFSZ designed to alert residents about possible fire danger.

Construction of the development associated with the updated Housing Element may temporarily impact traffic circulation conditions during construction periods. However, construction impacts on circulation would be temporary and would still allow for evacuation in the event of an emergency, and emergency access would be maintained to development sites during construction.

Development included under the updated Housing Element would increase the population of the City, which in turn may exacerbate traffic congestion during an evacuation by increasing the number of vehicles utilizing evacuation routes. However, the updated Environmental Safety and Public Services Element implementing programs listed above would reduce potential impacts because the goals, policies, and actions would improve evacuation and emergency response compared to existing conditions. Further, the development projects included under the Housing Element Update have been sited such that most new housing would not be located in areas that would interfere with wildfire emergency response or evacuation procedures and planning. One parcel on Crestview Drive and another just west of Devonshire Canyon SOI are in the VHFHSZ has been identified for increased density. Crestview Drive would function as a primary evacuation route for the western edge of the city and would provide an adequate evacuation route for the new residents. New policies are in place to ensure adequate access for new developments.

The project includes implementation of the above listed Goals, Policies, and Actions of the updated Environmental Safety and Public Services Element, annual requirement to update the City's Emergency Operations Plan, and implementation of SMC Alert and Zonehaven evacuation systems. These ensure the proposed project would not result in substantial impairment of an adopted emergency response plan or emergency evacuation plans. The impact is considered less than significant.

***IMPACT WLDFR-2: The project would not, due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. (Less Than Significant Impact)***

The risks associated with wildfires are most pronounced for land west of Alameda de las Pulgas where homes and other structures are often located within areas of dense vegetation and on steep slopes. These areas are designated as HFHSZ or VHFHSZ. As noted above under Impact WLDFR-1, the majority of new housing proposed by the updated Housing Element is concentrated in

already developed urban areas with flat topography in the eastern portion of the City closer to San Francisco Bay and outside of the HFHSZ and VHFHSZ. One parcel on Crestview Drive in the VHFHSZ has been identified for increased density and another parcel just west of the incorporated Devonshire Canyon area (within the City of San Carlos) has been identified in the Housing Element for additional housing. The City has adopted the 2019 California Fire Code and 2018 International Fire Code as described above in 4.17.2 Regulatory Setting. Chapter 5 Fire Service Features includes:

- Section 503 which specifies provisions pertaining to road standards for fire equipment access,
- Section 505 which presents standards for signs identifying streets, roads, and buildings, and
- Section 507 establishes minimum private water supply reserves for emergency fire use

Chapter 33 of the 2019 Fire Code addresses fire safety during construction and demolition, mandating fire safety procedures for the construction and demolition of structures (Section 3301-3317) and Chapter 49 of the same addresses requirements for construction within wildland-urban interface fire areas and establishes minimum standards related to defensible space, requiring that property owners in a VHFHSZ manage vegetation within a 100-foot radius of a building.

Specific policies contained within the updated Environmental Safety and Public Services Element directly address wildfire safety in new development including:

<u>Land Use Planning</u>

*Policy ESPS-3.4:* Locate essential public facilities out of high-risk, wildfire-prone areas including the VHFHSZ unless mitigation measures, above the minimum fire protection standards, are installed.

*Policy ESPS-3.5:* Prioritize infill development opportunities to prevent increased development in the WUI and Very High Fire Severity Zones (VHFSZ).

*Policy ESPS-3.6:* Minimize new development within the VHFSZ.

*Policy ESPS-3.7:* Consider the preservation of undeveloped ridgelines to reduce fire risk and improve fire protection.

*Policy ESPS-3.8:* Regularly review and confirm the City's re-development policy for all structures in VHFSZs after large fires. If the City has an unwritten policy, adopt a written re-development policy.

*Policy ESPS-3.9:* Incorporate or require the incorporation of fire safety features in new development and re-development.

*Policy ESPS-3.10:* Require new residential developments to have adequate fire protection; and be more wildfire resistant by establishing greenbelt zones for fire resistant landscaping.

*Policy ESPS-3.11:* Require new residential development to be designed in such a manner that reduces wildfire hazard and improves defensibility (e.g. clustering lots, managed greenbelts, water storage, fuel modification zones, and vegetation setbacks.)

*Action ESPS-3.6:* Discourage critical facilities being in the VHFSZ.

*Action ESPS-3.7:* Periodically re-evaluate the City's policy allowing rebuilding in the VHFSZ. If the policy is unwritten, adopt a formal written policy.

*Action ESPS-3.8:* When a fire has occurred in the VHFSZ, evaluate if street design and size can be reconfigured to improve emergency access and evacuation efficiency.

*Action ESPS-3.9:* If development is permitted within the VHFSZ, require:

- a Fire Protection Plan addressing: risk analysis, fire response capabilities, fire safety requirements (defensible space, infrastructure, and building ignition resistance), mitigation measures and design considerations for non-conforming fuel modification, and wildfire education maintenance and limitations;

- landscape/fuel modification installation, incorporating open areas to complement defensible spaces, identifying possible refuge areas, and mapping and providing multiple ingress and egress routes;

- resident evacuation plans and ways to effectively communicate those plans, including identifying the location and direction of evacuation routes and at least two points of ingress and egress; and a roadside fuel reduction plan to prevent fires along public roads caused by vehicles.

*Action ESPS-3.10* - Enforce fire standards and regulations while reviewing building plans and conducting building inspections.

<u>Water Supply</u>

*Policy ESPS-3.12:* Ensure adequate water supply is available.

*Action ESPS-3.12:* Require new development projects have adequate water supplies to meet the fire-suppression needs of the project without compromising existing fire suppression services to existing uses.

*Action ESPS-3.13:* Work with water suppliers (Cal Water) to:

- maintain and ensure the long-term integrity of future water supply for fire suppression needs;

- ensure that water supply infrastructure adequately supports existing and future development and redevelopment;
- provide adequate water flow to combat structural and wildland fires, including during peak domestic demand periods. Water systems shall equal or exceed the standards of the latest edition of National Fire Protection Association (NFPA) 1142, "Standard on Water Supplies for Suburban and Rural Fire-Fighting.";
- ensure water infrastructure can provide for peak fire flow; and
- identify where water infrastructure does not allow for peak fire flow and develop a plan to mitigate the deficiencies.

Construction and Property Maintenance

*Policy ESPS-3.13:* Ensure new and existing public and privately owned properties are constructed and maintained in a manner that minimizes and reduces fire hazard threats and has adequate fire protection.

*Action ESPS-3.14:* Condition all new development and redevelopment to have adequate fire protection, incorporate and maintain fire safe design, including fuel modification zones, defensible space, two ingress/egress points, emergency vehicle access, and visible home addressing and street signage.

*Action ESPS-3.15:* Require the use of fire-retardant roofing material for all new construction and major remodels involving roof additions. Encourage property owners with shake shingle roofs to upgrade to fire-retardant materials.

*Action ESPS-3.16:* Continue to enforce the brush clearance/weed abatement program for both private and public roads as well as City-owned open spaces.

*Action ESPS-3.17:* Continue code enforcement programs requiring private and public property owners to maintain buildings and properties to prevent blighted conditions, remove excessive or overgrown vegetation (e.g., trees, shrubs, weeds), and remove litter, rubbish, and illegally dumped items from properties.

*Action ESPS-3.18:* Seek grants and other funding sources to assist low-income residents with home hardening efforts.

*Action ESPS-3.19:* Adopt an ordinance or update existing ordinances to require development standards that meet or exceed title 14, CCR, division 1.5, chapter 7, subchapter 2, articles 1-5 (commencing with section 1270) (SRA Fire Safe Regulations) and title 14, CCR, division 1.5, chapter 7, subchapter 3, article 3 (commencing with section 1299.01) (Fire Hazard Reduction Around Buildings and Structures Regulations) for SRAs and/or VHFHSZs.

*Action ESPS-3.20:* Within the VHFSZ, the City's building and planning departments will work with local fire departments, community organizations, and other responsible organizations to require and ensure:

- the installation of fire protection water system for all new construction projects including fire hydrant instillation, fire sprinkler, or suppression systems, and providing adequate fire flow;
- the long-term maintenance of defensible space clearances around structures, subdivisions, and fuel breaks; and
- all structures rebuilt/re-developed after a large fire to comply with building and fire codes in effect at the time of the re-development.

*Action ESPS-3.21:* Conduct a survey of existing residential structures within the VHFSZ identifying buildings that do not comply with fire safety standards. Consult with property owners to bring those properties into compliance with the most current building and fire safety standards.

*Action ESPS-3.22:* Consider developing or improving structure hardening standards for community refuges (such as schools, hospitals, evacuation centers).

Current regulations, along with the proposed updated Environmental Safety and Community Services Element goals, policies, and actions, will continue to influence future housing development. These provisions will continue to regulate, for example, building design, access, firefighting water supply, and vegetation management, all to lessen the possible risk of ignition and spread of wildfires.

One parcel on Crestview Drive and another parcel just west of the incorporated Devonshire Canyon area (within the City of San Carlos) have been identified for increased density as multi-family housing and are located in the VHFHSZ. New housing in VHFSHZs and SRAs would not be likely to exacerbate wildfire risks because of the requirement for fire safe building materials, defensible space, and water for firefighting requirements. Human-caused fires have been negatively correlated with population density, meaning more developed areas are less likely to be affected by wildfires throughout the state and suggesting that additional development would not necessarily lead to more wildfire risk, especially where high-density housing is developed.

The proposed updated Environmental Safety and Public Service Element goals, policies, and actions require collaboration with local fire departments to provide adequate fire protection for existing and new development. Further, the updated Housing Element inventory of sites has been selected to avoid hazardous areas, including areas subject to wildfire hazards. Compliance with proposed updated Environmental Safety and Public Services Element goals, policies, and actions, State regulatory requirements described above and in Section 4.17.2, and the applicable fire department development review process for new development, will help minimize the potential for impacts related to wildfires and subsequent downhill or downstream impacts, including exposure to air pollutants. In addition, the project includes a new policy in the Land Use Element:

- <u>Policy LU-10.6: Require all new development and significantly modified development in the High and Very High Fire Susceptibility Zones to install and maintain fire prevention</u>

design and materials in accordance with Building Codes at the time of the construction/reconstruction.

Therefore, the project would not result in substantial adverse impacts due to slope, prevailing winds, and other factors, exacerbating wildfire risks, and thereby exposing project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. This impact is considered less than significant.

***Impact WLDFR-3: The project would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. (Less Than Significant impact)***

The project does not involve the placement of new development within previously undeveloped areas requiring the installation of or maintenance of infrastructure such as roads, fuel breaks, emergency water sources, powerlines, or other utilities. As stated previously, the changes proposed by the updated Housing Element allows a greater density of housing in areas where housing is already allowed.

Future development in San Carlos would be subject to the adopted 2019 California Fire Code and the updated Environmental Safety and Public Services Element which contains the Goal, Policies, and Actions noted above in IMPACT WLDFR-1 and IMPACT WLDFR-2 that address potential impacts related to wildland fires citywide.

Implementation of the above-listed Agency Coordination, Facilities and Training, Land Use Planning, Water Supply, Construction and Property Maintenance, and Access and Evacuation goals, policies and actions contained in the updated Environmental Safety and Public Services Element would ensure fire risks are not exacerbated or result in temporary or ongoing impacts to the environment. This would be a less than significant impact.

***Impact WLDFR-4: The project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post fire slope instability or drainage changes. (Less Than Significant Impact)***

Landslides and erosion are often associated with areas that have been burned by wildfires. Landslide susceptibility is shown in Figure 8-5 of the proposed Environmental Safety and Public Services Element. Wildfires can result in slopes and soils that are susceptible to soil movement and loss. Exposure to rain and increased runoff could exacerbate the possible impact. Soil movement may clog road drains. In addition, wildfires kill vegetation and their roots, which hold soil in place. Decaying roots of trees pose a substantial decrease in the strength of soil to resist sliding.

As noted previously, new housing proposed by the updated Housing Element concentrates housing in already developed urban corridors on flat topography near identified evacuation routes and away from areas in the western hills where significant wildfire threat exists and where single access

roads are concentrated. Proposed goals, policies, and actions included in the project are designed to minimize exposure of people and structures to post-fire risks. The programs range from maintaining an adequate level of preparedness to protecting development from geologic hazards, restricting development in VHFHSZ. Chapter 4.6 (Geology and Soils) of this EIR provides further detail on landslide and slope stability hazards. The applicable updated Environmental Safety and Public Services Element policies that would avoid or reduce significant impacts are listed below.

*Goal ESPS-3* - Agency Coordination: A resilient San Carlos is well prepared to minimize risks associated with wildfire.

<u>Land Use Planning</u>

*Policy ESPS-3.4:* Locate essential public facilities out of high-risk, wildfire-prone areas including the VHFHSZ unless mitigation measures, above the minimum fire protection standards, are installed.

*Policy ESPS-3.5:* Prioritize infill development opportunities to prevent increased development in the WUI and Very High Fire Severity Zones (VHFSZ).

*Policy ESPS-3.6:* Minimize new development within the VHFSZ.

*Policy ESPS-3.7:* Consider the preservation of undeveloped ridgelines to reduce fire risk and improve fire protection.

*Policy ESPS-3.8:* Regularly review and confirm the City's re-development policy for all structures in VHFSZs after large fires. If the City has an unwritten policy, adopt a written re-development policy.

*Policy ESPS-3.9:* Incorporate or require the incorporation of fire safety features in new development and re-development.

*Policy ESPS-3.10:* Require new residential developments to have adequate fire protection; and be more wildfire resistant by establishing greenbelt zones for fire resistant landscaping.

*Policy ESPS-3.11:* Require new residential development to be designed in such a manner that reduces wildfire hazard and improves defensibility (e.g., clustering lots, managed greenbelts, water storage, fuel modification zones, and vegetation setbacks.)

*Action ESPS-3.6:* Discourage critical facilities being in the VHFSZ.

*Action ESPS-3.7:* Periodically re-evaluate the City's policy allowing rebuilding in the VHFSZ. If the policy is unwritten, adopt a formal written policy.

*Action ESPS-3.8:* When a fire has occurred in the VHFSZ, evaluate if street design and size can be reconfigured to improve emergency access and evacuation efficiency.

*Action ESPS-3.9:* If development is permitted within the VHFSZ, require:

- a Fire Protection Plan addressing: risk analysis, fire response capabilities, fire safety requirements (defensible space, infrastructure, and building ignition resistance), mitigation measures and design considerations for non-conforming fuel modification, and wildfire education maintenance and limitations;

- landscape/fuel modification installation, incorporating open areas to complement defensible spaces, identifying possible refuge areas, and mapping and providing multiple ingress and egress routes;

- resident evacuation plans and ways to effectively communicate those plans, including identifying the location and direction of evacuation routes and at least two points of ingress and egress; and a roadside fuel reduction plan to prevent fires along public roads caused by vehicles.

*Action ESPS-3.10* - Enforce fire standards and regulations while reviewing building plans and conducting building inspections.

The proposed Environmental Safety and Public Services Safety Element goals, policies, and actions listed above and discussed in Chapter 4.6 (Geology and Soils) and Chapter 4.9 (Hydrology and Water Quality) of this EIR require existing and new development to be adequately protected from potential flooding, slope stability, or landslide hazards and to not cause such hazards through careful site planning and construction. Further, the updated Environmental Safety and Public Services Element includes proposed policies and actions that would reduce the risk of the ignition and spread of wildfire in the City, thereby reducing the potential for post-fire impacts. Proposed policies and an actions included in the Environmental Safety and Public Services Element are designed to minimize exposure of people and structures to post-fire risks. The policies and actions range from maintaining an adequate level of preparedness to protecting development from geologic hazards, by implementing stability report requirements. Chapter 4.6 (Geology and Soils) of this EIR provides further detail. The proposed Environmental Safety and Public Services Element combined with geotechnical requirements for development contained in the Municipal Code address the geologic safety of development in areas prone to landslide. Implementation of the proposed Environmental Safety and Public Services Element goals, policies, and actions would ensure people or structures would not be exposed to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. This impact is considered less than significant.

### 4.16.5 References

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Tetra Tech. 2021 Multijurisdictional Local Hazard Mitigation Plan – Volume 1. October. Accessed August 19, 2022 at https://www.smcgov.org/ceo/2021-multijurisdictional-lhmp

Tetra Tech. 2022. San Carlos Emergency Operations Plan Draft 3. June.

# 5.0 ALTERNATIVES TO THE PROPOSED FOCUSED GENERAL PLAN UPDATE AND ZONING AMENDMENTS

Section 15126.6 of the CEQA Guidelines requires an EIR to *"describe a range of reasonable alternatives to the project, or to 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." The section also states that "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 those alternatives would impede to some degree the attainment of the project objectives, or would be more costly."* Under Section 15126.6(a) of the CEQA Guidelines, an EIR does not need to consider alternatives that are not feasible, nor need it address every conceivable alternative to the project. The range of alternatives "is governed by the 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice" (CEQA Guidelines § 15126.6(f).)

Pursuant to Section 15126.6, this chapter describes two alternatives to the Focused GPU and Zoning Amendments (Project), including (1) the CEQA-mandated No Project Alternative, and (2) RHNA Only Alternative and compares the impacts of each alternative to the project. The ability of each alternative to meet the basic project objectives is also described, and the "environmentally superior" alternative among the two (2) alternatives is identified, as required by the CEQA Guidelines.

## 5.1 IMPACTS OF THE PROPOSED PROJECT

CEQA requires the alternatives discussion to describe alternatives to the project that would avoid or substantially lessen any of the significant effects of the project, This EIR has identified the following significant unavoidable impacts that could result from the Housing and Safety Element Update Project (also see Table 2-1 in the Summary chapter).

### 5.1.1 Significant Unavoidable Project Impacts

**Impact AIR-1:** The project would conflict with or obstruct implementation of the applicable air quality plan. Implementation of Mitigation Measure AIR-2 would reduce construction criteria air pollutant and toxic air contaminant emissions to a level that is below the BAAQMD-recommended threshold of significance. However, it cannot be definitively known or stated at this time that all future development projects occurring under implementation of the proposed project would be able to reduce potential criteria air pollutant emissions to levels that are below BAAQMD thresholds. This impact would be considered significant and unavoidable even with the incorporation of feasible mitigation measures.

**Impact AIR-2:** The project would result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard. Implementation of Mitigation Measure AIR-2 would reduce

construction criteria air pollutant and toxic air contaminant emissions to a level that is below the BAAQMD-recommended threshold of significance. However, it cannot be definitively known or stated at this time that all future development projects occurring under implementation of the proposed project would be able to reduce potential criteria air pollutant emissions to levels that are below BAAQMD thresholds. This impact would be considered significant and unavoidable even with the incorporation of feasible mitigation measures.

**Impact AIR-3:** The project could expose sensitive receptors to substantial pollutant concentrations. Implementation of Mitigation Measure AIR-2 would reduce construction criteria air pollutant and toxic air contaminant emissions to a level that is below the BAAQMD-recommended threshold of significance. However, with regard to localized criteria air pollutant and TAC emissions generated during future construction activities it cannot be definitively known or stated at this time that all future development projects occurring under implementation of the proposed project would be able to reduce potential criteria air pollutant and TAC emissions to levels that are below BAAQMD thresholds. This impact would be considered significant and unavoidable even with the incorporation of feasible mitigation measures.

**Impact AIR-5:** The project could cause substantial adverse cumulative impacts with respect to Air Quality. Because future construction activities could result in ozone precursor and PM emissions that exceed BAAQMD thresholds, the project could increase the frequency and/or severity of air quality violations in the Bay Area Basin or otherwise impede attainment of air quality standards.

### 5.1.2 Less Than Significant with Mitigation Project Impacts:

**Impact BIO-1:** New housing development on sites that are on or adjacent to natural vegetation or aquatic habitat, and/or vegetation thinning and fuel breaks in natural habitat areas, could impact sensitive habitat or special-status species supported by such habitat. Mitigation Measures BIO-1, Project-Specific Biological Resources Evaluation would reduce impacts to less than significant.

**Impact BIO 2:** Construction of housing and/or vegetation thinning and the creation of fuel breaks during the nesting bird season could have direct and indirect impacts on nesting birds protected by the federal Migratory Bird Treaty Act, and California Fish and Game Code. Mitigation Measure BIO-2 Nesting Birds and BIO-3a and 3b Mitigation Measure BIO-3a. Bat Habitat Assessment and Dusk Surveys would reduce impacts to less than significant.

**Impact BIO-3:** The construction of housing adjacent to creeks could adversely impact state or federally protected wetlands through filling, hydrological interruption, loss or riparian vegetation, or other means. Mitigation Measure BIO-1 would reduce this impact to less than significant.

**Impact BIO-4:** Mitigation Measure BIO-1 requires a project specific biological resources evaluation for sites that are on or adjacent to natural vegetation or aquatic habitat. The biological resources evaluation would address wildlife movement and nursery sites if applicable and include site-specific mitigation as needed.

**Impact BIO-5:** Implementation of Mitigation Measures BIO-1, BIO-2, and BIO-3 would ensure future housing projects don't conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

**Impact TRIB-1:** To prevent otherwise non-significant resources which are significant to a local tribe from being destroyed or damaged, the implementation of Mitigation Measure TRIB-1 would reduce impacts to TCRs to less than significant.

## 5.2 Rationale for Alternative Selection

In accordance with CEQA Guidelines Section 15126.6(a), an EIR does not need to evaluate every conceivable alternative. Section 15126.6(c) of the CEQA Guidelines states, "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 effects." CEQA Guidelines Section 15126(f)(2) indicates that alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, need not be considered.

CEQA Guidelines Section 15126.6(f) indicates that the Lead Agency should consider site suitability, economic viability, availability of infrastructure, general plan consistency, other regulatory limitation, jurisdictional boundaries, and the proponent's control over alternative sites in determining the range of alternatives to be evaluated in an EIR.

The Housing Element site selection process involved extensive research into viable housing sites, and multiple public workshops and presentations to the City Planning Commission and City Council. The Housing Element ultimately identifies housing sites with demonstrated viability for future housing development and which minimizes environmental impacts by clustering the housing sites in areas already zoned for residential or multi-use, which are close to downtown and transit options, and which minimize exposure to environmental hazards such as wildfire or sea level rise. This effort to locating the housing sites in areas where environmental impacts would be minimized is reflected in the number and type of significant and unavoidable impacts identified above in Section 5.1. Most of the significant and unavoidable impacts are related to short-term air emissions associated with housing construction.

Because the housing sites identified in the Housing Element are primarily located in the downtown area of the city and along El Camino Real, and thus close to transit, the EIR impact analysis determined the project would not have significant VMT impacts, air emissions from vehicle traffic, GHG emissions, or cause land use impacts based on the identified Thresholds of Significance presented in the EIR. Section 15126.6 of the CEQA Guidelines requires an EIR to describe a range of reasonable alternatives to the project that would avoid or substantially lessen any of the significant effects of the project. For these reasons the EIR does not present alternatives that propose different housing sites, or propose to place housing in different locations within the city, or alternatives to the density increases proposed under the project.

With respect to alternative locations, CEQA Guidelines Section 15126.6(f) indicates that alternative locations need not be evaluated in every case. For this project, examining an alternative location for the project is not a feasible alternative since the project is to update the City's General Plan Housing and Safety Elements. Therefore, this chapter does not discuss an alternative project location.

The EIR is required to describe a range of reasonable alternatives to 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. The project objectives included in Chapter 3, Project Description, are:

Project Objectives:

1. Promote the preservation and improvement of the quality of existing housing and neighborhoods.
2. Encourage housing development located close to transit, Downtown, and along El Camino Real and San Carlos Avenue with high quality, higher density, multi-family housing.
3. Assist in the development of new housing that is affordable at all income levels.
4. Remove and/or mitigate potential governmental constraints to the provision of adequate, affordable housing.
5. Provide adequate housing for special needs populations.
6. Eliminate discrimination in the provision of housing.
7. Reduce the potential loss of life, injury, and property damage due to seismic and geologic hazards.
8. Reduce hazards associated with flooding or inundation from inland flooding and Sea Level Rise.
9. Protect lives and property from risks associated with wildfire-related emergencies.
10. Protect the community from the harmful effects of hazardous materials.
11. Combat housing discrimination, lessen racial bias, lessen historic patterns of segregation, and lift barriers that restrict access to foster inclusive communities and achieve racial equity.
12. Continue effective emergency response procedures to ensure public safety in the event of natural or man-made disasters.
13. Identify communities most vulnerable to climate change impacts and establish new goals, policies, and programs for equitable public safety, emergency preparedness, response, and recovery.

While selecting alternatives to be considered for analysis, the City focused on alternatives which could potentially reduce the significant effects of the project and would also achieve project objectives. One overarching objective of the project is to accommodate, within the framework of the Housing Element, the State-mandated RHNA goal for the City for the 6$^{th}$ Housing Cycle, which is a total of 2,735 dwelling units. Therefore, the extent to which the RHNA would be achieved (referred to as the "RHNA Objective") was analyzed for each alternative.

The EIR impact analysis did not identify any potentially significant impacts requiring mitigation or significant and unavoidable impacts associated with adoption and implementation of the Safety Element Update. The Land Use Element, Environmental Management Element, Circulation and Scenic Highways Element, Noise Element, and Title 18 Zoning Amendment updates are only required to maintain consistency with the updated Housing and Environmental Safety and Public Services Elements. Therefore, the EIR does not need to present alternatives for these portions of the project.

## 5.3 Alternatives Selected

The following alternatives have been evaluated in comparison to the proposed Focused GPU project:

- Alternative 1: No Project
- Alternative 2: RHNA Only

Per CEQA Guidelines Section 15126.6(d), the discussion of impacts associated with the alternatives is less detailed than the evaluation included in Chapters 4.1 through 4.16. Table 5-1 summarizes the development assumptions of each alternative. Table 5-2 summarizes the potential impacts of the alternatives compared to the impacts associated with implementation of the project. The alternatives' potential impacts are evaluated in the following Sections 5.3 through 5.5.

In accordance with State CEQA Guidelines Section 15126.6, (1) an "environmentally superior alternative" has been identified, and (2) the discussion of the impacts of the alternatives is less detailed than the discussions in the environmental topic chapters.

### 5.3.1 Alternative 1: No Project/Existing Housing Element/2009 General Plan

State CEQA Guidelines Section 15126.6(e) requires an EIR to analyze the specific alternative of "No Project". The purpose of describing and analyzing the No Project Alternative is to allow decision makers to compare the impacts of approving a proposed project with the impact of not approving the proposed project. The No Project Alternative must discuss the existing conditions at the time the EIR notice of preparation is published, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

Additionally, State CEQA Guidelines Section 15126.6(e)(3)(a) states that when the project is the revision of an existing land use or regulatory plan, the "No Project" alternative will be the continuation of the existing plan. Typically, this is a situation where new projects would be proposed under the existing plan. Thus, the impacts of the proposed project would be compared to the impacts that would occur under the existing plan.

Although the No Project Alternative does not meet any of the Focused General Plan Update project objectives and is not considered a viable project alternative, it is presented below as required by CEQA.

## Principal Characteristics

*Housing Element:* Under the No Project Alternative, the City would not update the existing 2015 to 2023 Housing Element. The existing Housing Element would continue to direct the City's decisions related to housing development and the RHNA assignment of 596 new housing units to be planned for. Although between 2015 and 2021, 622 units of the current 596-unit RHNA assignment were constructed and total construction exceeded the full RHNA allocation, this was largely due to the development of above-moderate income units. Only 11 percent of very low-income units, 13 percent of low-income units, and 13 percent of moderate-income units were built during this period (see Section 3.1.2 of the Project Description).

The No Project Alternative assumes that development would occur within the City as anticipated under the 2009 General Plan and the 2015-2023 Housing Element (RHNA assignment of 596 which has already been exceeded in 2021), as well as the future Downtown Specific Plan and the Northeast Area Specific Plan which are planning projects currently underway in the City. Demand for new housing in the City would continue to be market driven and the City would continue to receive development applications for housing projects.

As described in detail in the Project Description (section 3.3.8) the proposed project includes amendments to the City's Zoning Ordinance (Title 18 of the San Carlos Municipal Code) to allow for fulfilment of the City's RHNA by increasing the residential density within certain zoning designations, as well as by creating new zoning designations. Under the No Project Alternative amendments would not be made to the Zoning Ordinance and existing residential densities would remain.

The Development assumptions for this alternative are shown in Table 5-1. As compared to the proposed new Housing Element (RHNA assignment of 2,735), there would be a significant reduction in residential development. Additionally, no new Housing Elements goals, policies, or actions facilitating housing construction would be adopted.

It should be noted that the City would face significant, adverse repercussions for not adopting a new Housing Element reflecting the 6$^{th}$ cycle RHNA assignment. State housing law identifies penalties that can be levied against jurisdictions that do not adopt new housing elements, including:

- Eligibility for grants: A city without a compliant housing element is not eligible for a variety of state grants and loans. Several federal funding programs consider compliance with housing element law as an eligibility or ranking criterion.
- Court approval of housing developments: If a city fails to adopt a compliant housing element, the Housing Accountability Act requires that city to approve any proposed housing development project that has 20% of units set aside for low-income residents or 100% of units set aside for middle-income residents irrespective of its compliance with the applicable zoning or general plan (Cal. Gov. Code § 65589.5(d)).
- Fines and fees: If a court finds a city to be out of compliance, the court can order the city to pay fines to the California state housing trust fund, attorney's fees to the plaintiff, or both. Cal. Gov. Code § 65585(l)(1) defines an escalating structure of fines with a minimum amount of $10,000 per month and a maximum of $100,000 per month. Continued failure to achieve a certified Housing Element allows the court to multiply the fines by a factor of three per month and later a factor of six per month.

- Legal suits and attorney fees: Local governments with noncompliant housing elements are vulnerable to litigation from housing rights' organizations, developers, and HCD. If a jurisdiction faces a court action stemming from its lack of compliance and either loses or settles the case, it often must pay substantial attorney fees to the plaintiff's attorneys in addition to the fees paid to its own attorneys. Potential consequences of lawsuits include: mandatory compliance within 120 days, suspension of local control on building matters, and court approval of housing developments.
- Loss of permitting authority: Courts have authority to take local government residential and nonresidential permit authority to bring the jurisdiction's General Plan and housing element into substantial compliance with State law. The court may suspend the locality's authority to issue building permits or grant zoning changes, variances, or subdivision map approvals (Cal. Gov. Code § 65755(a)).

*Community Safety and Services Element:* Under the No Project Alternative, the existing Community Safety and Services Element would continue to function as the City's Safety Element. The existing Community Safety and Services Element discusses the hazards posed by geologic and seismic, flooding, and wildfire hazards. It does not cover the new spectrum of environmental hazards required by Gov. Code §65304(g), including climate change and resiliency planning (drought, extreme weather events, extreme heat events), sea level rise, or a more robust discussion and analysis of wildfire hazards.

**Analysis of No Project Alternative**

The impacts of the No Project Alternative are examined qualitatively to allow comparison with the project. The City does not contain agricultural, forestry, or mineral resources, therefore these topics are not discussed below.

*Housing Element:* The RHNA assignment for the current 2015-2023 Housing Element is 596 units whereas the RHNA assignment for the proposed Housing Element update (2023-2031) is 2,735 units. With the required planning buffer this EIR analyzes the impacts of 3,576 units (2,735 RHNA + 841 buffer units). Because of the substantially greater number of housing units planned for in the proposed Housing Element Update and the resulting increase in population, the proposed project has overall greater environmental impacts than the No Project Alternative. The proposed project would have greater air quality, GHG, and energy emissions because of the greater number of units and increase in population, it would generate greater VMT, greater demand on public services and utilities, generate more noise from housing construction and increased number of vehicles on local roadways than the No Project Alternative.

The Draft EIR analysis found the impacts of the proposed Focused GPU on air quality to be significant and unavoidable under Impacts AIR-1, AIR-2, AIR-3, and AIR-5. Mitigation Measure AIR-2 would be required but the impact would remain significant and unavoidable even with mitigation. The No Project Alternative would have a reduced amount of air quality emissions, but the impact is assumed to remain significant and unavoidable as described in 2009 General Plan EIR.

The proposed project would alter the visual character of the downtown area and a stretch of El Camino with buildings that would be taller than currently allowed under the General Plan or Zoning Ordinance.

While the project does not cause land use impacts as measured against the CEQA Thresholds of Significance, it would increase housing density, propose more housing in mixed-use areas, and facilitate the construction of multi-family units adjacent to single-family housing.

*Community Safety and Services Element:* The proposed project includes the Environmental Safety and Public Services Update and would help the City prepare for the adverse effects of climate change. The No Project Alternative would not have the beneficial effect of creating new planning policy for climate change and resiliency planning, including wildfire hazard and sea level rise.

Attainment of Project Objectives

The No Project Alternative would not meet any of the project objectives and would not allow the city to comply with state housing laws or SB 379 requiring the inclusion on climate change resilience planning in Safety Elements. As described above, the City would have substantial, adverse consequences for not adopting a new Housing Element reflecting the 6$^{th}$ cycle RHNA assignment.

### 5.3.2 Alternative 2: RHNA Only Alternative

The City of San Carlos has been assigned a RHNA of 2,735 new housing units for the 2023-2031 planning period. This is broken down into 739 extremely low/very low-income units, 425 low-income units, 438 moderate income units, and 1,133 above moderate income units. Government Code section 65863, including amendments pursuant to Chapter 367, Statutes of 2017 (Senate Bill 166) requires jurisdictions to maintain adequate sites to accommodate their remaining unmet RHNA by each income category at all times throughout the entire planning period. If, at any time during the planning period, the jurisdiction finds that there is a shortfall of sites to accommodate its remaining RHNA, the jurisdiction must take immediate action to correct the shortfall by amending its Housing Element sites inventory to either include sites previously unidentified with capacity to accommodate the shortfall, or sites that have been rezoned to correct for the shortfall. Failure to do so constitutes a violation of the No Net Loss law. HCD guidance states: To ensure that sufficient capacity exists in the Housing Element to accommodate the RHNA throughout the planning period, create a buffer in the Housing Element inventory of at least 15 to 30 percent more capacity than required, especially for capacity to accommodate the lower-income RHNA. Jurisdictions can also create a buffer by projecting capacity less than what is allowed from the maximum density to allow for some reductions in density or rezoning additional sites above what is needed to accommodate the RHNA.

Because the Housing Element must plan for or have policies in place to accommodate the RHNA assignment in any given planning period, the City is planning for and evaluating a total of 3,576 units (2,735 RHNA + 841 buffer units).

As the project's primary impacts are significant and unavoidable short-term air quality impacts from emissions during housing construction, an alternative that analyzes the effects of fewer housing units is appropriate.

## Principal Characteristics

The RHNA Only Alternative reflects a reduced number of residential units from 3,576 units to 2,735 (841 units), and the same amount of non-residential development included in the project. Since the significant impacts of the project (air quality) are largely due to the substantial number of new residential units proposed, this alternative reduces the potential number of future dwelling units, therefore reducing the amount of air emissions and short-term construction noise that would be generated from housing construction. Development assumptions for this alternative are shown in Table 5-1, below. This alternative assumes that goals, policies, or development standards associated with the project would apply to this alternative.

## Analysis of the RHNA Only Alternative

The potential impacts associated with the RHNA-Only Alternative are described below.

*A.* *Aesthetics.* The EIR analysis found the aesthetic impacts of the proposed Focused GPU to be less than significant. Neither the project nor the RHNA Only Alternative would impact a scenic vista, damage scenic resources within a state designated highway, conflict with applicable zoning or other City regulations governing scenic quality, or create a new source of light and glare. The project and the RHNA Only Alternative would increase allowable density in the downtown mixed-use zones and would decrease setbacks and increase allowable residential building heights. The RHNA Only Alternative may reduce the degree of impacts to the aesthetic design and character of the downtown area and El Camino Real corridor due this alternative's reduced development potential. As such, this alternative would reduce aesthetic impacts and would have a similar less-than-significant impact compared to the project.

*B.* *Air Quality.* The project would result in significant unavoidable air quality impacts. The EIR analysis found the impacts of the proposed Focused GPU on air quality to be significant and unavoidable under Impacts AIR-1, AIR-2, AIR-3, and AIR-5. Mitigation Measure AIR-2 would be required to reduce the project's significant and unavoidable impacts; however, even after implementation of this mitigation measure, the project's significant and unavoidable impacts would remain significant and unavoidable. The RHNA Only Alterative would decrease the amount of development potential compared to the project by 23.9 percent through removal of the project's proposed buffer sites. It is likely that air quality impacts under this alternative would be similar to those of the project, and mitigation measures needed for the project would also be required for this alternative. As such, the RHNA Only Alternative would have a similar significant and unavoidable air quality impact compared to the project.

*C.* *Biological Resources.* The EIR analysis found the impacts of the proposed Focused GPU on biological resources to be potentially significant under Impacts BIO-1, BIO-2, BIO-3, BIO-4, and BIO-5. Mitigation Measures BIO-1, BIO-2, BIO-3a, and BIO-3b would be required to reduce the project's potentially significant impacts to less than significant. The RHNA Only Alternative would reduce potential residential development by 23.9 percent compared to the proposed project by excluding the project's proposed buffer sites. As with the project, development under the RHNA Only Alternative could potentially significantly impact special-status plant and wildlife species and their habitat. While the RHNA Only

Alternative would reduce the amount of potential development in the project area, this alternative would likely have similar impacts due to the potential to adversely impact habitat for special-status species. As such, this alternative would have similar impacts as the proposed project.

*D.* *Cultural Resources and Tribal Cultural Resources.* The EIR analysis concluded the project would have a potentially significant impact related to tribal cultural resources under Impact TRIB-1. Mitigation Measure TRIB-1 would be required to reduce the project's tribal cultural impacts to less than significant. As with the project, development under the RHNA Only Alternative could uncover previously unknown cultural resources or destroy/change structures that could be considered historic. While the RHNA Only Alternative would reduce the amount of potential housing development in the city, this alternative would likely have similar impacts due to the potential to uncover previously unknown cultural resources and would require similar mitigation to reduce impacts to a less than significant level. The RHNA Only Alternative would have similar less than significant impact with mitigation as the proposed project.

*E.* *Energy.* Given the reduced amount of development associated with the RHNA Only Alternative, this alternative would likely result in less consumption of electricity, natural gas, and vehicle fuel resources. Similar to the proposed project, new development and land use turnover under this alternative would be required to comply with statewide mandatory energy requirements outlined in Title 24, Part 6, of the California Code of Regulations (the CALGreen Code), which would decrease estimated natural gas consumption in new and/or retrofitted structures. The RHNA Only Alternative would have a somewhat less energy usage compared to the project.

*F.* *Geology and Soils.* Development under both the RHNA Only Alternative and the project would be exposed to the same existing geologic and seismic hazards within the project area and existing building requirements would be applicable to all housing projects, whether they are constructed under the proposed project or under this alternative. For these reasons, the RHNA Only Alternative would have similar impacts to those of the proposed project.

*G.* *Greenhouse Gas Emissions.* Overall, GHG emissions associated with the RHNA Only Alternative would be reduced compared to the project due to the exclusion of the 841 buffer units included in the proposed project (reduce potential residential development by 23.9 percent compared to the project). As with the project, development under the RHNA Only Alternative would be subject to all applicable local, State, and federal regulations and programs related to GHG emissions reductions. For these reasons, the GHG emissions associated with this alternative would be reduced in total amount compared to the project which already has a less-than-significant impact.

*H.* *Hazards and Hazardous Materials.* All development under this alternative, similar to development under the project, would be subject to all applicable federal, State, local laws and regulations including San Carlos General Plan policies regarding the development of contaminated sites, unanticipated discovery of contamination, hazardous material handling, and hazardous material disposal. The RHNA Only Alternative would further reduce the severity of the less-than-significant impact because this alternative would result in less housing development potential, thereby decreasing the number of construction sites

where hazardous materials would be used. The RHNA Only Alternative would have a reduced less-than-significant hazards and hazardous materials impact due to less proposed housing development.

*I.* *Hydrology and Water Quality.* Though the project area is largely built out, both the project and the RHNA Only Alternative could result in new housing development that would increase the amount of surface runoff generated in the project area and could put future development at risk of flooding and sea level rise. Development under both the project and this alternative would be subject to all existing hydrology water quality regulations and programs, including regulations and programs intended to reduce potential impacts related to runoff, soil erosion, and flooding. Development under the project and this alternative would benefit from the additional sea level rise-related policies and actions included in the proposed Safety Element update, which would reduce the severity of existing and future flooding in the City from creeks and drainages, as well as from sea level rise. Therefore, the RHNA Only Alternative would have a somewhat reduced, but similar less-than-significant hydrology and water quality impact compared to the project.

*J.* *Land Use and Planning.* As with the project, the RHNA Only Alternative would not physically divide an established community and would not conflict with regulations adopted to avoid environmental effects. This alternative's exclusion of the buffer units would not result in a reduction of the less-than-significant impacts identified under the project. The RHNA Only Alternative would have similar, less than significant land use impacts as the proposed project.

*K.* *Noise.* The RHNA Only Alternative would have somewhat reduced noise impacts compared to the proposed project because it would result in less noise from housing construction projects and less traffic noise on local roadways.

*L.* *Population and Housing.* This alternative would result in fewer housing units being constructed and less of a population increase than the proposed project. less development compared to the project due to the exclusion of the project's proposed buffer units.

*M.* *Public Services and Recreation.* This alternative would result in less housing development compared to the project due to the exclusion of the project's proposed buffer units. Due to the RHNA Only Alternative's reduced development potential, this alternative would result in a decrease in demand for public services and recreational facilities compared to the project. The RHNA Only Alternative would result in a reduced less-than-significant public services and recreation impact compared to the project.

*N.* *Transportation.* The EIR analysis found the impacts of the proposed Focused GPU on transportation to be less than significant. The RHNA Only Alternative would result in 2841 fewer units potentially being developed would occur with implementation of the project. Given the reduction in development associated with this alternative, it is possible that vehicle miles traveled impacts under this alternative might decrease compared to the project. Therefore, the RHNA Only Alternative is assumed to have reduced VMT impacts when compared to the proposed project.

*O.* *Utilities and Service Systems.* This alternative would result in a reduced amount of housing development compared to the project. While this alternative assumes a housing increase

that could increase demand for utilities services and potentially require service systems improvements and/or installations in the project area, this alternative would still result in a decrease in utilities services demands compared to the project due to this alternative's reduced development potential. For this reason, the RHNA Only Alternative would result in a reduced, less-than-significant utilities and service system impact compared to the project.

*P.* *Wildfire.* High fire severity zones are present in the western portions of the project area, but no new housing is proposed in these areas. As with the proposed project, the RHNA Only Alternative would result in the implementation of the proposed Housing Element and Safety Element policies and actions, including the proposed Safety Element policies and actions that would reduce wildfire hazards pursuant to recent State law. Neither the project nor the RHNA Only Alternative would locate new housing in the VHFHSZ. As such, the RHNA Only Alternative would have similar less-than-significant wildfire impacts compared to the project.

**Attainment of Project Objectives**

The RHNA Only Alternative would meet all but one of the project objectives. Guidance from HCD on housing element preparation requires the inclusion of buffer sites to ensure enough sites have been identified to construct not only the total RHNA assignment (2,735), but also all the various income level categories as described in Project Description. Not including buffer units in the Housing Element puts the element at risk of not being approved by HCD, leaving the City at risk. Ultimately, not including buffer units in the proposed Housing Element does not meet the City's objectives of preparing a Housing Element that will get approved by HCD within the mandated timeframe (adoption of the new Element by January 31, 2023). Not including buffer units would also jeopardize the obtainment of the EIR Project Objective of: Assist in the development of new housing that is affordable at all income levels.

## 5.4 SUMMARY OF ATTAINMENT OF PROJECT OBJECTIVES

As described above under the discussion of the alternative, the No Project Alternative does not meet any of the project's objectives and would mean the City would not be in compliance with State laws regarding General Plan Housing and Safety Elements. The City would be subject to the significant penalties for not adopting a Housing Element reflecting the 6$^{th}$ cycle RHNA assignment.

The RHNA Only Alternative would meet many of the City's stated project objectives; however, HCD guidance states: To ensure that sufficient capacity exists in the Housing Element to accommodate the RHNA throughout the planning period, create a buffer in the Housing Element inventory of at least 15 to 30 percent more capacity than required, especially for capacity to accommodate the lower-income RHNA. Jurisdictions can also create a buffer by projecting capacity less than what is allowed from the maximum density to allow for some reductions in density, or rezoning additional sites above what is needed to accommodate the RHNA. If the City prepares a Housing Element Update that does not include buffer sites (RHNA only) HCD will not accept the proposed Housing Element Update and would direct the City to include buffer sites.

Thus, the RHNA Only Alternative does not meet the important objective of having HCD approve the Housing Element Update and adopt the new element within the mandated timeframe (by January 31, 2023)

## 5.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

If an alternative is considered clearly superior to the proposed project relative to identified impacts, Section 15126.6 of the CEQA Guidelines requires that alternative to be identified as the environmentally superior alternative. By statute, if the environmentally superior alternative is the No Project Alternative, an EIR must also identify an environmentally superior alternative among the other alternatives. The identification of the environmentally superior alternative does not consider the ability of the alternative to meet the stated project objectives; it focuses on environmental impacts only.

Per CEQA Guidelines Section 15126.6(d), the discussion of impacts associated with the alternatives is less detailed than the evaluation included in Chapters 4.1 through 4.16. Table 5-1 summarizes the development assumptions of each alternative. Table 5-2 summarizes the potential impacts of the alternatives compared to the impacts associated with implementation of the project. The alternatives' potential impacts are evaluated in Section 5.3.

**Table 5-1: Land Use Alternatives' Development Assumptions**

| | | Net Change | | |
|---|---|---|---|---|
| | | | Alternatives | |
| ***Land Use*** | ***Existing Conditions*** | ***Proposed Focused GPU*** | ***1. No Project/Existing Housing Element/2009 General Plan*** | ***2. RHNA Only Alternative*** |
| Residential (units) | 12,385[1] | +3,576[2] | +1,436[3] | +2,735 |

[1] Source: Table 4.1-5 in the Needs Assessment. MIG 2021.
[2] RHNA Units 2,735 + 841 buffer units = 3,576
[3] Source: Table 3-2, 2009 General Plan EIR

| Table 5-2: Alternatives Impacts Compared to Project Impacts | | | |
|---|---|---|---|
| ***Impact/Resource*** | ***Proposed Project*** | ***Alternative 1: No Project*** | ***Alternative 2: RHNA Only Alternative*** |
| **Aesthetics** | LTS | Reduced LTS | Similar LTS |
| **Air Quality** | SU with Mitigation | Reduced SU with Mit. | Similar SU with Mitigation |
| **Biological Resources** | LTS with Mitigation | Reduced LTS | Similar LTS with Mitigation |
| **Cultural Resources and Tribal Cultural Resources** | LTS with Mitigation | Reduced LTS | Similar LTS with Mitigation |
| **Energy** | LTS | Reduced LTS | Reduced LTS |
| **Geology and Soils** | LTS | Similar LTS | Similar LTS |
| **Greenhouse Gas Emissions** | LTS | Reduced LTS | Reduced LTS |
| **Hazards and Hazardous Materials** | LTS | Similar LTS | Reduced LTS |
| **Hydrology and Water Quality** | LTS | Similar LTS | Similar LTS |
| **Land Use** | LTS | Reduced LTS | Similar LTS |
| **Noise** | LTS | Reduced LTS | Reduced LTS |
| **Population and Housing** | LTS | Reduced LTS | Reduced LTS |
| **Public Services and Recreation** | LTS | Reduced LTS | Reduced LTS |
| **Transportation** | LTS | Reduced LTS | Reduced LTS |
| **Utilities and Service Systems** | LTS | Reduced LTS | Reduced LTS |
| **Wildfire** | LTS | Greater LTS | Similar LTS |

Source: MIG, 2021
LTS= Less than Significant Impacts
SU= Significant and Unavoidable Impacts

While the No Project Alternative would result in similar or reduced impacts compared to the project due to the absence of the development proposed under the project, the No Project Alternative would not meet State laws regarding both the Housing and Safety Elements.

The RHNA Only Alternative eliminate 841 units from the proposed project and is only marginally superior to the proposed project because it would not substantially reduce the environmental impacts associated with the proposed project. Any reduction in impacts would not be significant because the number of housing units in the proposed project is not that much greater than the RHNA Only Alternative.

The RHNA Only Alternative would comply with State law, and it would satisfy most of the City's objectives. The RHNA Only Alternative would also provide the benefit of updating the Environmental Safety and Public Services Element with the new wildfire, sea level rise, and climate change resiliency policies and actions included in the proposed Safety Element update. Therefore, the RHNA Only Alternative is considered the environmentally preferrable alternative.

# CHAPTER 6 CEQA MANDATED SECTIONS

## 6.1 Impacts Found Less than Significant

### 6.1.1 Agriculture and Forestry Resources

**Environmental Setting**

The project area covers the City of San Carlos, which contains developed commercial, mixed use, industrial, open space, and residential land uses. The California Department of Conservation's (CDOC) Farmland Mapping and Monitoring Program identifies the site as Urban and Built-up Land (CDOC 2019).

**Thresholds of Significance**

The project would have a significant impact on agriculture and forestry resources if it would:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use,
b) Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract,
c) Result in the loss of forest land or conversion of forest land to non-forest use, or
d) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.

**Impacts**

***Impact AGFOR-1: The project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. (No Impact)***

The CDOC Farmland Mapping and Monitoring Program designates the majority of the City as Urban and Built-Up Land (CDOC 2022). Several areas of the project area are designated as Other Land or Grazing Land and consist of vacant, non-agricultural land and open space (CDOC 2022). Areas within the City designated as Other Land occur in the western foothills of the City west of Alameda de las Pulgas near the City's western boundary. The project does not propose any new development in areas designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. As such, the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and no impact would occur.

***Impact AGFOR-2: The project would not conflict with existing zoning for agricultural use or conflict with a Williamson Act contract. (No Impact)***

There is no land within the City or its Sphere of Influence designated for agricultural use. The City does not contain Williamson Act contract parcels. As such, the project would have no impact related to agricultural zoning or Williamson Act contract lands, and no conflicts with existing zoning for agricultural uses would occur.

***Impact AGFOR-3: The project would not conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)). (No Impact)***

The City does not contain lands zoned as forest land. As such, the project does not identify Opportunity Sites zoned for forest land. In addition, there are no lands zoned as timberland, or timberland zoned Timberland Production areas (as defined in Public Resources Code [PRC] 12220(g) and PRC 4526 or Government Code 51104(g)) within the City. The Project would not affect forest land or timberland or conflict with existing zoning for forest land.

***Impact AGFOR-3: The project would not result in the loss of forest land or conversion of forest land to non-forest use. (No Impact)***

As described above, the project does not identify Opportunity Sites zoned for forest land. As such, no impacts related to the loss of forest land or conversion of forest land to non-forest use would occur.

***Impact AGFOR-4: The project would not involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. (No Impact)***

As described above, the sites selected for future intensification of residential density as described in the Project Description do not include farmland or forest land. These sites are within a developed urban area and are concentrated in existing developed neighborhoods and commercial thoroughfares. None of the identified sites are located on agricultural land. The project would not result in the conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. As such, no impacts related to the conversion of agricultural or forest land to other land uses would occur.

### 6.1.2 Mineral Resources

#### Environmental Setting

The City of San Carlos is a developed city located in an urban area. There are no mines or known mineral resources in the City of San Carlos (San Carlos 2009).

## Regulatory Setting

State

*Surface Mining and Reclamation Act*

The Surface Mining and Reclamation Act (SMARA) was enacted by the California legislature in 1975 to address the need for a continuing supply of mineral resources, and to prevent or minimize the negative impacts of surface mining to public health, property, and the environment. As mandated under SMARA, the State Geologist has designated mineral land classifications to help identify and protect mineral resources in areas within the state subject to urban expansion or other irreversible land uses which would preclude mineral extraction. SMARA also allowed the State Mining and Geology Board (SMGB), after receiving classification information from the State Geologist, to designate lands containing mineral deposits of regional or statewide significance.

## Thresholds of Significance

The project would have a significant impact to mineral resources if it would:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

## Impacts

***Impact MIN-1: The project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. (No Impact)***

As described in Section 4.10 Land Use and Planning, what is now the City of San Carlos was occupied by ranchos established through the disbursement of land grants from the Spanish government in the early 1800s. The construction of the first railroad from San Francisco to San Jose and the expansion of infrastructure spurred the successful development of the City's first residential neighborhoods, followed by commercial development in the form of gas stations, grocery stores, a pharmacy, and industrial facilities (San Carlos 2009). San Carlos does not have a history of quarrying or mineral extraction.

The State Mining and Geology Board establishes Mineral Resource Zones (MRZs) to designate lands that contain mineral deposits (State Mining and Geology Board 2000). The classifications used by the state to define MRZs are as follows:

- MRZ-1: Areas where the available geologic information indicates no significant likelihood of significant mineral deposits

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

The City does not have mineral resource areas as noted in the Environmental Management Element of the 2030 General Plan. The City does not have land designated by the California Department of Conservation as having the potential for being a significant source of composite materials or industrial minerals. As such, none of the project's proposed Opportunity Sites is located in an area with known mineral deposits. There would be no impact related to the loss of availability of a known mineral resource that would be of value to the region and the residents of the state as a result of the Project.

***Impact MIN-2: The project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. (No Impact)***

The City does not contain mineral resource recovery sites; as such, implementation of the project would not result in the loss of availability of a locally important mineral resource recovery site delineated in the 2030 General Plan, a Specific Plan, or any other land use plan. There would be no impact.

### 6.1.3 References

California Department of Conservation. 2018. California Important Farmland Finder. Accessed on July 18, 2022 at https://maps.conservation.ca.gov/DLRP/CIFF/.

City of San Carlos. San Carlos 2030 General Plan. October 12, 2009.

## 6.2 CUMULATIVE IMPACTS

Section 15130(a) of the CEQA Guidelines requires that the EIR "discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable...." The CEQA Guidelines (Section 15355) define "cumulative impacts" as "...two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."

The analyses of quantitative cumulative impacts in this EIR are based on the “summary of projections” method, as authorized by section 15130(b)(1)(B) of the CEQA Guidelines.

The proposed San Carlos Focused GPU is itself a cumulative project because it would be implemented across the entire project area incrementally and cumulatively over the approximately eight year time horizon of the proposed 6$^{th}$ cycle Housing Element and the Environmental Safety and Public Services Element. This Program EIR evaluates the Focused GPA as one “project” in accordance with CEQA. All potentially significant cumulative impacts are addressed in this chapter with the following exceptions:

A. The project would have no impacts in the following two environmental topics: Agriculture and Forest Resources; and Mineral Resources. See Chapter 6.1 (Impacts found Less than Significant), above. Therefore, these topics are not further evaluated in the DEIR and cumulative impacts for these resources are considered less than significant.

B. The BAAQMD identifies all regional air pollutant emission impacts and climate change impacts as inherently cumulative impacts because they contribute to regional and global conditions, and are not confined to physical boundaries. Accordingly, the analyses of these impacts in Chapters 4.2 (Air Quality), 4.6 (Energy) and 4.7 (Greenhouse Gas Emissions and Global Climate Change) are analyses of cumulative impacts.

C. Cumulative noise impacts are analyzed in detail in Chapter 4.11 (Noise).

D. Cumulative transportation impacts are analyzed in detail in Chapter 4.14 (Transportation).

All other potential cumulative impacts are addressed in the sections that follow below.

### 6.2.1 Aesthetics

**Scenic Vistas**

A cumulative impact to scenic vistas would occur if cumulative housing projects within the project area, combined with other cumulative projects in the surrounding area, resulted in the substantial degradation of quality or obstruction of particularly scenic views available from a recognized scenic vista. Project specific impacts with respect to scenic vistas were determined to be less than significant. Buildout of the Focused GPU addresses the City’s RHNA assignment plus buffer units for the next 8-year cycle and would occur primarily in the downtown area and along El Camino

Real and are far from scenic vistas. Since the project area is almost entirely urbanized, incremental changes that would occur from implementation of the proposed Focused GPU would not result in cumulative impacts with respect to scenic vistas. Potential cumulative impacts would be less than significant.

### Scenic Highways

Since the proposed housing sites are primarily clustered in the downtown and El Camino Real areas, new housing would not be visible from Hwy 280 which is a designated state scenic highway. The only housing development that would be visible from Hwy 280 would be ADUs and lot splits done under SB9. Housing development proposed by the project would not result in impacts to scenic resources within a state scenic highway. Therefore, the proposed Focused GPU would not contribute to a potential cumulative significant impact to a scenic highway. Potential cumulative impacts would be less than significant.

### Degrade Visual Character

Construction and habitation of future housing development within the project area was determined to result in less than significant impacts to the existing visual character and quality of the project area and to the surrounding area. Future housing projects, as well as other development allowed under the 2009 General Plan considered in the cumulative scenario would generally be subject to the City's underlying zoning standards that include regulations pertaining to permitted uses, minimum lot dimensions, and maximum building height. The proposed Focused GPU includes Zoning Ordinance revisions related to setbacks, FAR, parking, landscaping, and public open space, among other things.

Future projects within the project area would be located where similar existing uses occur, and as such, would not entail a significant visual change such that the existing visual character or quality of project sites and their surroundings would be substantially degraded. Design Review per Municipal Code Chapter 18.29.060 is required for all projects that require a permit for new construction, reconstruction, rehabilitation, alteration, or other improvements to the exterior of a structure. The purpose of the Design Review is to ensure that new development supports the General Plan's goal of creating a vibrant pedestrian- and transit-oriented core with distinctive neighborhoods and districts with a diversity of building types that provide continuity in scale and character with the appropriate transitions. Specific design review criteria are provided in Municipal Code Chapter 18.29.060.

Currently, specific design review criteria are provided in the Zoning Code (Municipal Code Chapter 18.29.060). However, the project will revise Land Use Element Actions LU-8.5 and LU-9.2 of the General Plan to specifically include objective design standards and transitional design standards for multi-family residential buildings and commercial uses adjacent to single-family homes among the proposed Zoning Ordinance Amendments. See Chapter 4.1.4, Impact AES-3 for a discussion of the new land use policies directing the preparation of objective design standards. The City has already initiated a planning effort to develop these objective design standards. The

benefit of the City adopting objective design standards is that they would apply to all projects, even "by right" projects and ministerial projects, and can be used as standard conditions of project approval.

In addition, the project includes two revised polices in the Land Use Element pertaining to views and building height for new development (see Chapter 4.1.4, Impact AES-3 discussion).

Conformance with the new Land Use Element policies would ensure that new development under the proposed Focused GPU would not adversely affect views, and would not contribute to cumulative impacts that would degrade the existing visual character or quality of the area and its surroundings. Potential cumulative impacts would be less than significant.

**Light and Glare**

Project related impacts with respect to light and glare were determined to be less than significant. Lighting and building materials associated with cumulative housing development would be subject to Municipal Code 18.29.060(J) which requires lighting and lighting fixtures be designed to complement buildings, be of appropriate scale, provide adequate lighting over walkways and parking areas to create a sense of pedestrian safety, and avoid creating glare. If detailed information regarding proposed lighting and building materials are not known during preparation of necessary environmental documentation for cumulative projects, then the adoption of applicant-proposed measures or mitigation measures would likely be required by the City of San Carlos to ensure that lighting and glare impacts are less than significant. Therefore, cumulative impacts would be less than significant.

### 6.2.2 Biological Resources

Housing development associated with the implementation of the Focused GPU would not significantly contribute to the ongoing loss of natural lands in San Mateo County, or San Carlos. Proposed housing development under the Focused GPU would be predominantly within urbanized areas and established neighborhoods. Much of the remaining biodiversity within the project area is concentrated in park and open space areas and within Devonshire Canyon, or along the two creeks within the city. Existing General Plan policies would continue to protect biological resources within the City and proposed mitigation measures as part of the Focused GPU would further protect biological resources from future development. Mitigation measures BIO-1, BIO-2, and BIO-3 ensure that future housing development implemented as part of the Focused GPU would not result in significant impacts to sensitive species, nesting birds, and roosting bats. Therefore, the cumulative impact is considered less than significant.

### 6.2.3 Cultural and Tribal Cultural Resources

Investigations for Native American tribal cultural and archaeological resources and sites and historical resources in the built environment are not comprehensive for the project area and in the case of buried resources, are unknown as they have yet to be identified since they are typically

only uncovered during earth moving activities. Therefore, cumulative impacts to cultural, historic, or tribal cultural resource sites or resources are difficult to quantify and assess.

Cumulative impacts would occur when a series of actions leads to the loss of a substantial type of site, building, or resource. For example, while the loss of a single historic building may not be significant to the character of a neighborhood or streetscape, continued loss of such resources on a project-by-project basis could constitute a significant cumulative effect. This is most obvious in historic districts, where destruction or alteration of a percentage of the contributing elements may lead to a loss of integrity for the district overall. Changes to the setting or atmosphere of an area, for example, 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.

As discussed in Chapter 4.4 Cultural and Tribal Cultural Resources, however, development in areas both within and outside the project area would be subject to federal and state laws protecting cultural and tribal cultural resources. The goals and polices of the Land Use Element protecting historic architectural resources, archaeological resources, human remains, and historic architectural resources – in combination with the actions put forth in that Element as well as Mitigation Measure TRIB-1 and mitigation in subsequent analyses to address site specific conditions and records for known resources – would result in less-than-significant cumulative impacts to cultural and tribal cultural resources.

### 6.2.4 Geology and Soils

The City of San Carlos is located in a seismically active region of the state and within relative proximity to several major faults. Geologic and soils hazards are largely site specific. The magnitude of this risk would be dependent on the site-specific conditions present at each location. Regardless of the potential risk, any future projects within the project area would be required to implement design and construction practices intended to reduce and or avoid site-specific geologic and soils risks (either through compliance with general plan policies and local building code, or through the implementation of site-specific mitigation measures developed as a result of required site investigations). The proposed project does not allow any specific future development to occur. Mitigation in subsequent analyses to address site-specific geological conditions and site soils would render the site-specific risks posed by local and regional hazards such as ground shaking, liquefaction, and other soils and geologic-related conditions less than significant for each project and would prevent significant cumulative impacts from occurring. The cumulative impacts of the project would be less than significant.

### 6.2.5 Hazards and Hazardous Materials

Implementation of the project would result in additional housing development within the City which could increase the potential for exposure to hazards and hazardous materials. Other types of development within the City and surrounding cities throughout the region could induce similar exposure to hazardous materials and other hazards. However, the housing development proposed

by the Focused GPU would have localized effects on the exposure of residents to these hazards through the housing construction process and the types of hazardous materials used during construction. This type of exposure would not be compounded by additional exposure in other parts of the region. Additionally, future development implemented because of the project would be subject to existing and proposed General Plan policies, Zoning Code requirements, to ensure that all hazards and hazardous materials are managed appropriately and according to California and local regulations to ensure public safety. Subsequently, the implementation of the project would have a less-than-significant cumulative impact on hazards and hazardous materials. The updated Environmental Safety and Public Services Element would not increase the public's risk from hazards and hazardous materials and would not contribute to cumulative impacts.

### 6.2.6 Hydrology and Water Quality

The watershed is used as the geographic unit for the cumulative hydrology and water quality analysis based on the concept that many water quality problems, like the accumulation of pollutants or nonpoint source pollution, are best addressed at the watershed level. In addition, California's regulatory framework for protection of water quality focusses on the watershed.

The proposed project could, in conjunction with other projects within the watershed, contribute urban runoff pollutants to downstream receiving waters, resulting in degradation of water quality delivered to the San Francisco Bay. Future projects within the watershed would incorporate BMPs, LID, retention, and treatment measures per NPDES requirements, to control and/or treat stormwater runoff during construction and operation to prevent significant erosion, siltation, flooding, and other sources of pollution. As such the cumulative impact of the project related to surface water quality is less than significant. Similarly, Chapter 15.56 of the Municipal Code (Floodplain Management). establishes 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. General Plan Policies CSS-2.4 and CSS-2.12 increase flood protection through reductions in impervious surface area and by requiring new development projects to incorporate storm drain systems that control runoff rates and volumes. Therefore, cumulative impacts because of impeding or redirecting flood flows is also less than significant.

San Carlos does not utilize groundwater for potable water supplies, therefore future development associated with the project would have no effect on groundwater supplies. New or redevelopment projects would be required to implement LID-based runoff treatment controls in conformance with the MRP, including the use of permeable paving materials that could potentially allow for greater groundwater recharge through infiltration compared to existing conditions. Groundwater depletion could result from dewatering activities during subterranean construction, however, the implementation of existing General Plan Policy EM-5.10 and related Actions (Actions 5.1, 5.2, 5.4 & 5.10, described in 4.9 Hydrology) would result in less than significant cumulative impacts for groundwater depletion. Therefore, the project would result in a less than significant cumulative impact groundwater supply, recharge, and quality.

### 6.2.7 Land Use

As described in Chapter 4.10 Land Use, implementation of the proposed project would not result in a significant land use impact by potentially physically dividing an established community; therefore, it would not make a cumulatively considerable contribution to an environmental impact related to physically dividing an established community.

The proposed project would be consistent with applicable land use plans and policies adopted for the purpose of avoiding or reducing an adverse environmental effect. The City would continue to review future development proposals to ensure compliance with the City's environmental policies and utilize its discretion to disapprove projects and/or general plan amendments that would cause significant cumulative impacts to the environment. However, no such conflicts, including those with *Plan Bay Area 2050*, have been identified for the proposed project. Implementation of the proposed project would not make a cumulatively considerable contribution to conflicts with land use plans and policies adopted for the purpose of avoiding or reducing an adverse environmental effect. This potential impact would be less than significant.

### 6.2.8 Population and Housing

As described above, the proposed updated Housing Element and proposed Environmental Safety and Public Services Element would not result in substantial unplanned population growth or the displacement of substantial numbers of housing units, requiring the construction of replacement housing. The potential growth in housing, and related population, identified in the Housing Element Update would be consistent with the City's RHNA and *Plan Bay Area 2050*. Other planning jurisdictions in the Bay Area are currently updating their housing elements to identify available sites to accommodate their designated RHNA share, as jurisdictions must accommodate more than 441,000 new housing units to meet the RHNA for the region during the 2023-2031 planning period. Other housing elements must also prepare for the population growth projected for the region and the associated need for new housing to accommodate that growth. As with the San Carlos Housing Element Update, the growth accommodated by the housing elements of other jurisdictions would be planned growth, not unplanned growth; implementation of the project would not result in a significant cumulative impact.

Implementation of the updated San Carlos Housing Element would result in a net increase in housing. Thus, the project would not make a cumulatively considerable contribution to a regional impact related to a substantial displacement of housing or people. This cumulative impact would be considered a less than significant impact.

### 6.2.9 Public Services and Recreation

Housing development that is facilitated by the Focused General Plan Update, in combination with other cumulative development in the project area, would increase the demand for all public services. Public services can be potentially impacted by increased population, especially when new infrastructure is not built to meet population increases or when existing facilities are not adequately

maintained. Alternatively, impacts may also occur when new facilities are built, resulting in physical impacts to the environment resources. The proposed Environmental Safety and Public Services Element provides policies addressing levels of services, and new development would be required to pay school impact fees to address the need for new or expanded facilities. New developments would result in increased property taxes which would assist in paying for the incremental increases in demand for public services. Further, should new public services facilities be required, environmental review would identify site-specific conditions and physical changes resulting from facility expansion.

Future regional growth would result in increased demand for park and recreational facilities throughout the region. As a result, City of San Carlos and other jurisdictions would need to expand and construct additional parks and other recreational facilities to meet the increased demand. State law allows jurisdictions to require additional development to fund park improvements, which would ensure the provision of adequate parklands. However, the location and size of additional facilities would be determined as part of future development activity. As specific parkland expansion or improvement projects are identified, additional project-specific, environmental analysis would be completed. As a result, a significant cumulative impact associated with public services and recreations would not occur.

### 6.2.10 Utilities and Service Systems

Cumulative development within the Cal Water service area will continue to increase demands on water supplies. As discussed in Chapter 4.15 Utilities and Service Systems, it is possible that new or expanded facilities may be needed to meet future water demand within Cal Water's service area. Cal Water has developed a Water Shortage Contingency Plan to address potential water shortage conditions. In addition, any future expansion of existing facilities or construction of new facilities would be required to undergo environmental review pursuant to CEQA. Because water-related impacts would be identified, along with measures to mitigate any significant impacts, as part of the CEQA compliance process for future project-specific proposals, the project would not have a cumulatively considerable contribution to a significant cumulative impact regarding water supply services. This would be considered a less than significant impact.

The SVCW WWTP (wastewater facility) serves other jurisdictions in addition to the City of San Carlos, and it is possible that incremental increases in demand, as anticipated under the project, and in conjunction with increased demand for other communities, could result in the need for future new or expanded wastewater treatment facilities. The need for new or expanded wastewater infrastructure would be addressed on a case-by-case basis for each cumulative project, and would be subject to CEQA review and any resulting mitigation measures. Therefore, cumulative impacts related to wastewater facilities would be less than significant.

The geographic scope for cumulative electricity and natural gas impacts is the PG&E service area, which includes the Focused GPU project area. PG&E is subject to the requirements set forth and/or enforced by the CPUC. The need for electric and natural gas infrastructure would be addressed on a case-by-case basis for each cumulative project, and would be subject to CPUC requirements,

similar to those applicable to the project. Therefore, cumulative impacts related to electric power and natural gas transmission facilities would be less than significant.

All development projects in San Carlos are required to be consistent with adopted solid waste and recycling regulations and programs, including those described in Chapter 4.15 Utilities and Service Systems. The solid waste disposal and recycling facilities used by the City of San Carlos have ample capacity, and the applicable regulations and programs have been deliberately designed and adopted to avoid or reduce cumulative solid waste/recycling impacts to less-than-significant levels. The overall cumulative solid waste/recycling impact of cumulative development would be less than significant.

### 6.2.11 Wildfire

The project includes updated policies within the Environmental Safety and Public Services Element and the Land Use Element which are specifically designed to address wildfire hazards in the community. Implementation of Policies ESPS-3.4 – 3.11 and Actions ESPS-3.6 – 3.9 and 4.2, and LU-10.6 would ensure that wildfire hazards associated with future development within the City is minimized. The majority of land use density changes proposed by the housing element is concentrated in urbanized areas outside of the VHFHZ. The cumulative impact is considered less than significant.

### 6.2.12 References

City of San Carlos. San Carlos 2030 General Plan. October 12, 2009.

City of San Carlos Municipal Code. August 22, 2022.

## 6.3 GROWTH INDUCEMENT

CEQA Guidelines Section 15126.2(d) requires that the EIR discuss "...the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment."

The proposed project would result in an allowable increase of up to 2,735 additional dwelling units. An estimated population increase of approximately 11.7 percent (approximately 5,105 residents) is projected for the 2040 horizon year (from 2020). However, no substantial, detrimental, growth-inducing effect is expected.

State law requires the City to promote the production of housing to meet its fair share of the regional housing needs distribution made by ABAG. The housing and employment growth in San Carlos would generally have beneficial effects by allowing the City to address its regional fair-share housing obligations. In addition, the type of growth envisioned by the proposed Focused GPU would be concentrated in specific, designated areas and new development would be pedestrian-friendly, use land efficiently, and promote transportation alternatives.

Housing along and near the El Camino Real transit corridor and Caltrain station would be encouraged, as would mixed-use development. The growth envisioned under the 2030 General Plan would result in regional benefits by promoting growth that encourages less automobile dependence and supports regional transit systems, which could reduce air quality and noise impacts associated with population growth and non-residential development. Encouraging infill growth in the Downtown area and other designated areas and maintaining the City's open space designations would help to preserve open space at the urban fringe and reduce development pressures on lands outside the city limit. For these reasons, the growth-inducing effects of implementation of the Focused GPU would be beneficial to the city and surrounding areas.

The goals, polices and implementing actions, contained in the proposed Focused GPU address the potentially negative aspects of growth, have been designed to facilitate development efficiently and effectively in an area where roads and infrastructure already exist. The more compact urban form envisioned by the Focused GPU is expected to improve the livability of San Carlos by enhancing open space and recreation, improving walking and bicycling opportunities, increasing economic vitality and job opportunities, and reducing vehicle-miles-travelled (VMT). The potential growth-related impacts associated with the Focused GPU have also been evaluated in the topical chapters of this EIR (Aesthetics, Biological Resources, etc.) and, as appropriate, mitigation measures have been applied to address such impacts. In addition, implementation of the proposed Focused GPU would not involve the extension of roads, major sewer or water lines, or the construction of other major infrastructure facilities that would induce growth in areas adjoining San Carlos.

### 6.3.1 Indirect Impacts

The 2030 General Plan encourages new growth in the urbanized areas of San Carlos. Development in these areas would consist of infill development on the remaining vacant sites or redevelopment of underutilized sites. Since the infrastructure is largely in place, and since commercial growth would be required to comply with the City's standards for public services and utilities, secondary growth-inducing effects do not represent a significant environmental impact.

### 6.3.2 References

City of San Carlos. San Carlos 2030 General Plan. October 12, 2009.

## 6.4 SIGNIFICANT UNAVOIDABLE IMPACTS

CEQA Guidelines Section 15126.2(b) requires that the EIR discuss "significant environmental effects which cannot be avoided if the proposed project is implemented." As described in the environmental analyses contained in Section 4.1 through 4.16 of this EIR, most of the potentially significant impacts would be reduced to a less than significant level with mitigation. However, there are Air Quality impacts, listed below, that are considered significant and unavoidable impacts as the proposed mitigation is not able to reduce the impacts to less than significant levels. These significant and unavoidable impacts are:

**Impact AIR-1** – The project would conflict with or obstruct implementation of the applicable air quality plan. Implementation of Mitigation Measure AIR-2 would reduce construction criteria air pollutant and toxic air contaminant emissions to a level that is below the BAAQMD-recommended threshold of significance. However, it cannot be definitively known or stated at this time that all future development projects occurring under implementation of the proposed project would be able to reduce potential criteria air pollutant emissions to levels that are below BAAQMD thresholds. This impact would be considered significant and unavoidable even with the incorporation of feasible mitigation measures. **(Significant and Unavoidable Impact)**

**Impact AIR-2** – The project would result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard. Implementation of Mitigation Measure AIR-2 would reduce construction criteria air pollutant and toxic air contaminant emissions to a level that is below the BAAQMD-recommended threshold of significance. However, it cannot be definitively known or stated at this time that all future development projects occurring under implementation of the proposed project would be able to reduce potential criteria air pollutant emissions to levels that are below BAAQMD thresholds. This impact would be considered significant and unavoidable even with the incorporation of feasible mitigation measures. **(Significant and Unavoidable Impact)**

**Impact AIR-3** – The project could expose sensitive receptors to substantial pollutant concentrations. Implementation of Mitigation Measure AIR-2 would reduce construction criteria air pollutant and toxic air contaminant emissions to a level that is below the BAAQMD-recommended threshold of significance. However, with regard to localized criteria air pollutant and TAC emissions generated during future construction activities it cannot be definitively known or stated at this time that all future development projects occurring under implementation of the proposed project would be able to reduce potential criteria air pollutant and TAC emissions to levels that are below BAAQMD thresholds. This impact would be considered significant and unavoidable even with the incorporation of feasible mitigation measures. **(Significant and Unavoidable Impact)**

**Impact AIR-5** –The project could cause substantial adverse cumulative impacts with respect to Air Quality. Because future construction activities could result in ozone precursor and PM emissions that exceed BAAQMD thresholds, the project could increase the frequency and/or severity of air quality violations in the Bay Area Basin or otherwise impede attainment of air quality standards. **(Significant and Unavoidable Impact)**

## 6.5 SIGNIFICANT IRREVERSIBLE CHANGES

Section 15126.2(c) of the CEQA Guidelines requires a discussion of "significant irreversible environmental changes which would be caused by the proposed project should it be implemented." An example of such an irreversible commitment is the construction of highway improvements that would provide public access to previously inaccessible areas. A project would generally result in a significant irreversible impact if:

- Primary and secondary impacts would commit future generations to similar uses.
- The project would involve a large commitment of nonrenewable resources.
- The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project.

### 6.5.1 Commitment of Future Generations to Similar Uses

Housing development under the Focused GPU would result in the intensification of residential and mixed-use zoned areas to meet the City's RHNA. This development would constitute a long-term commitment to intensification of residential and other urban uses.

### 6.5.2 Commitment of Non-Renewable Resources

CEQA Guidelines Section 15126.2(c) requires that the EIR discuss "significant irreversible environmental changes which would be caused by the proposed Project should it be implemented." Since nearly all of San Carlos is developed and the project would not significantly change the circulation pattern or make other major changes to backbone infrastructure facilities, there would not be any significant irreversible physical changes caused by the Focused GPU. Housing development allowed under the Focused GPU would irretrievably commit nonrenewable resources to the construction and maintenance of buildings, infrastructure, and roadways. These non-renewable resources include mining resources such as sand, gravel, steel, lead, copper, and other metals. Buildout of the Focused GPU also represents a long-term commitment to the consumption of fossil fuels, natural gas, and gasoline. Increased energy demands would be used for construction, lighting, heating, and cooling of residences, and transportation of people within, to, and from the planning area. Because development facilitated by the proposed Focused GPU would be required by law to comply with California Code of Regulations Title 24 (including updates over time) and adopted City energy conservation ordinances and regulations, implementation of the project would not be expected to use energy in a wasteful, inefficient, or unnecessary manner.

The consumption or destruction of other non-renewable or slowly renewable resources would also result during construction, occupancy, and use of individual development sites under the proposed Focused GPU. These resources would include, but would not be limited to, lumber, concrete, sand, gravel, asphalt, masonry, metals, and water. Project implementation would also irreversibly use water and solid waste landfill resources. However, development under the proposed Focused GPU would not involve a large commitment of those resources relative to supply, nor would it consume any of those resources wastefully, inefficiently, or unnecessarily, especially considering ongoing City conservation and recycling programs.

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