



PUBLIC REVIEW DRAFT

ENVIRONMENTAL IMPACT REPORT

FOR THE

MARTINEZ GENERAL PLAN UPDATE
(SCH: 2015052064)

AUGUST 2022

Prepared for:

City of Martinez
Community Development Department
525 Henrietta Street
Martinez, CA 94533

Prepared by:

De Novo Planning Group
1020 Suncastr Lane, Suite 106
El Dorado Hills, CA 95762

D e N o v o P l a n n i n g G r o u p

A Land Use Planning, Design, and Environmental Firm



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Prepared for:

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525 Henrietta Street
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925-372-3500

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DRAFT ENVIRONMENTAL IMPACT REPORT

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Appendices

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- Appendix B – Tribal Consultation Communication
- Appendix C – Environmental Noise Assessment Appendices

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PURPOSE

The City of Martinez (City) as lead agency, determined that the Martinez General Plan Update (General Plan, General Plan, or project) is a "project" within the definition of the California Environmental Quality Act (CEQA), and requires the preparation of an Environmental Impact Report (EIR). This Draft EIR has been prepared to evaluate the environmental impacts associated with implementation of the project. This EIR is designed to fully inform decision-makers in the City, other responsible and trustee agencies, and the general public of the potential environmental consequences of approval and implementation of the General Plan. A detailed description of the proposed project, including the components and characteristics of the project, project objectives, and how the EIR will be used, is provided in Section 2.0, Project Description.

AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

This Revised Draft EIR addresses environmental impacts associated with the project that are known to the City, raised during the Notice of Preparation (NOP) scoping process, or were raised during preparation of the Draft EIR. This Draft EIR addresses the potentially significant impacts and cumulative impacts associated with aesthetics, agricultural resources, air quality, biological resources, cultural and tribal cultural resources, geology, soils, and mineral resources, greenhouse gas emissions, climate change and energy, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, public services and recreation, transportation and circulation, utilities and service systems, wildfire.

The City received five written comment letters on the NOP. Copies of these letters are provided in Appendix A of this Revised Draft EIR and a summary of the comments is provided in Section 1.0, Introduction. The City received the following comment letters:

- Bay Area Air Quality Management District (February 28, 2022)
- California Department of Transportation (February 25, 2022)
- East Bay Regional Park District (February 28, 2022)
- Harlan Strickland (February 28, 2022)
- Tim Platt (February 28, 2022)

ALTERNATIVES TO THE PROPOSED PROJECT

The CEQA Guidelines require an EIR to describe a reasonable range of alternatives to the project or to the location of the project which would reduce or avoid significant impacts, and which could feasibly accomplish the basic objectives of the proposed project. The alternatives analyzed in this EIR include the following:

- **Alternative 1: No Project Alternative.** Under Alternative 1, the City would not adopt the General Plan Update. The City's existing General Plan would continue to be implemented and no changes to the existing General Plan, zoning, or City policies or programs associated with the project would occur. The Existing General Plan Land Use Map is shown on Figure 6.0-1.
- **Alternative 2: Workforce VMT Reduction Alternative.** Under Alternative 2, the City would adopt the General Plan Update, including the proposed General Plan Land Use Map and updated goals, policies, and implementation measures. However, Alternative 2 would prioritize reductions in workforce VMT through reductions in floor-area-ratios (FAR) throughout the Study Area. For comparison, it is assumed that this Alternative would result in a 30 percent decrease in allowed FAR when compared to the proposed project. This would result in approximately 30 percent less non-residential square feet and jobs, and the same number of new residential dwelling units, and population when compared to the proposed project. This alternative was developed to reduce the severity of impacts related to greenhouse gas emissions, air quality, and VMT impacts, as new workforce development would be reduced, which would help to reduce per capita employment VMT throughout the City.
- **Alternative 3: Agricultural Preservation Alternative.** Alternative 3 would be similar to the proposed project in that it would include a comprehensive update of the General Plan. However, under this alternative, the approximately 4.5 acres of Unique Farmland that is located within the city limits and designated for Low Density Residential uses would instead be designated for agricultural or conservation lands. All other components of the proposed General Plan would remain the same. This alternative would result in the same number of jobs, and a slight reduction in residential units within the Residential Low (RL) land use category when compared to the proposed General Plan Update.

A comparative analysis of the proposed General Plan Update and each of the project alternatives is provided in Table ES-1 below. The table includes a numerical scoring system, which assigns a score of 1 to 5 to each of the alternatives with respect to how each alternative compares to the proposed project in terms of the severity of the environmental topics that were found to be significant in this EIR. A score of "3" indicates that the alternative would have the same level of impact when compared to the proposed project. A score of "1" indicates that the alternative would have a better (or reduced) impact when compared to the proposed project. A score of "2" indicates that the alternative would have a slightly better (or slightly reduced) impact when compared to the proposed project. A score of "4" indicates that the alternative would have a slightly worse (or slightly increased) impact when compared to the proposed project. A score of "5" indicates that the alternative would have a worse (or increased) impact when compared to the proposed project. The project alternative with the lowest total score is considered the environmentally superior alternative

TABLE ES-1: COMPARISON OF ALTERNATIVES TO THE PROPOSED PROJECT

Significant Environmental Issue	Alternative 1 No Project	Alternative 2 VMT Reduction	Alternative 3 Agricultural Preservation
Agricultural Resources	Same-3	Same-3	Better-1
Air Quality	Slightly better-2	Slightly better-2	Same-3
GHG	Slightly Worse-4	Slightly better-2	Same-3
Transportation and Circulation	Slightly Worse-4	Slightly better-2	Same-3
Overall	Slightly Worse - 13	Better - 9	Slightly Better - 10

Alternative 2 (VMT Reduction Alternative) is the environmentally superior alternative when looked at in terms of all potential environmental impacts because it provides the greatest reduction of potential impacts in comparison to the proposed project and the other alternatives. However, it should be noted that all of the alternatives would fail to reduce any significant and unavoidable impacts to a less than significant level. Information related to alternatives and their respective impacts are described in Section 6.0, Alternatives, of this DEIR.

SUMMARY OF IMPACTS AND MITIGATION MEASURES

In accordance with the CEQA Guidelines, this EIR focuses on the project's significant effects on the environment. The CEQA Guidelines defines a significant effect as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project. A less than significant effect is one in which there is no long or short-term significant adverse change in environmental conditions. Some impacts are reduced to a less than significant level with the implementation of General Plan Update goals, policies and implementation measures, mitigation measures, and/or compliance with regulations.

The environmental impacts of the proposed project, and the level of significance are summarized in Table ES-2.

TABLE ES-2: PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Environmental Impact	Mitigation Measure	Resulting Level of Significance
Aesthetics		
Impact 4.1-1: General Plan implementation could result in substantial adverse effects on scenic vistas	<i>None Required</i>	LS
Impact 4.1-2: General Plan implementation could substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, within a state scenic highway	<i>None Required</i>	LS
Impact 4.1-3: In non-urbanized areas, General Plan implementation could substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, the project could conflict with applicable zoning and other regulations governing scenic quality	<i>None Required</i>	LS
Impact 4.1-4: General Plan implementation could result in the creation of new sources of substantial light or glare which would adversely affect day or nighttime views of the area	<i>None Required</i>	LS
Future development associated with implementation of the General Plan Update would not result in cumulatively considerable aesthetic and light/glare impacts	<i>None Required</i>	LCC
Agricultural Resources		
Impact 4.2-1: General Plan implementation would result in the conversion of farmlands, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance or other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use	<i>Minimized to the greatest extent feasible through General Plan Goals, Policies, and Implementation Measures. No feasible mitigation is available.</i>	SU

CC – cumulatively considerable

LCC – less than cumulatively considerable

LS – less than significant

NI – no impact

SU – significant and unavoidable

Environmental Impact	Mitigation Measure	Resulting Level of Significance
Impact 4.2-2: General Plan implementation may result in conflicts with existing zoning for Agricultural uses, or a Williamson Act Contract	<i>None Required</i>	LS
Future development associated with the General Plan Update would result in cumulatively considerable impacts related to agricultural resources	<i>Minimized to the greatest extent feasible through General Plan Goals, Policies, and Implementation Measures. No feasible mitigation is available.</i>	CC
Air Quality		
Impact 4.3-1: General Plan implementation would not conflict with or obstruct implementation of the applicable air quality plan	<i>None Required</i>	LS
Impact 4.3-2: General Plan implementation could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard	<i>Minimized to the greatest extent feasible through General Plan Goals, Policies, and Implementation Measures. No feasible mitigation is available.</i>	SU
Impact 4.3-3: General Plan implementation would expose sensitive receptors to substantial pollutant concentrations	<i>None Required</i>	LS
Impact 4.3-4: General Plan implementation would not result in other emissions (such as those leading to odors adversely affecting a substantial number of people)	<i>None Required</i>	LS
Development of the General Plan Update and related projects would result in cumulatively considerable air quality impacts	<i>Minimized to the greatest extent feasible through General Plan Goals, Policies, and Implementation Measures. No feasible mitigation is available.</i>	CC
Biological Resources		
Impact 4.4-1: General Plan implementation could 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,	<i>None Required</i>	LS

CC – cumulatively considerable

LCC – less than cumulatively considerable

LS – less than significant

NI – no impact

SU – significant and unavoidable

Environmental Impact	Mitigation Measure	Resulting Level of Significance
policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service		
Impact 4.4-2: General Plan implementation 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 Wildlife or U.S. Fish and Wildlife Service	<i>None Required</i>	LS
Impact 4.4-3: General Plan implementation could have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means	<i>None Required</i>	LS
Impact 4.4-4: General Plan implementation 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	<i>None Required</i>	LS
Impact 4.4-5: The General Plan would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance	<i>None Required</i>	LS
Impact 4.4-6: General Plan implementation would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan	<i>None Required</i>	NI
Future development associated with the General Plan Update would not result in cumulatively considerable impacts related to biological resources	<i>None Required</i>	LCC

CC – cumulatively considerable

LCC – less than cumulatively considerable

LS – less than significant

NI – no impact

SU – significant and unavoidable

Environmental Impact	Mitigation Measure	Resulting Level of Significance
Cultural and Tribal Cultural Resources		
Impact 4.5-1: Project implementation could result in substantial adverse change in the significance of a historical resource	<i>None Required</i>	LS
Impact 4.5-2: Project implementation could result in a substantial adverse change in the significance of an archaeological resource	<i>None Required</i>	LS
Impact 4.5-3: Project implementation could result in the inadvertent disturbance of human remains including those interred outside formal cemeteries	<i>None Required</i>	LS
Impact 4.5-4: Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074, and that is: Listed or eligible for listing in the California Register of Historic Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or a resource determined by the lead agency	<i>None Required</i>	LS
Future development associated with the General Plan Update would not result in cumulatively considerable impacts related to cultural and tribal cultural resources	<i>None Required</i>	LCC

CC – cumulatively considerable

NI – no impact

LCC – less than cumulatively considerable

SU – significant and unavoidable

LS – less than significant

Environmental Impact	Mitigation Measure	Resulting Level of Significance
Geology, Soils & Mineral Resources		
Impact 4.6-1: General Plan implementation has the potential to expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides	<i>None Required</i>	LS
Impact 4.6-2: General Plan implementation has the potential to result in substantial soil erosion or the loss of topsoil	<i>None Required</i>	LS
Impact 4.6-3: General Plan implementation has the potential to 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	<i>None Required</i>	LS
Impact 4.6-4 General Plan implementation has the potential to result in development on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property	<i>None Required</i>	LS
Impact 4.6-5: General Plan implementation does not have the potential to 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	<i>None Required</i>	LS
Impact 4.6-6: General Plan implementation 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 and 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	<i>None Required</i>	LS

CC – cumulatively considerable

LCC – less than cumulatively considerable

LS – less than significant

NI – no impact

SU – significant and unavoidable

Environmental Impact	Mitigation Measure	Resulting Level of Significance
Future development associated with the General Plan Update would not result in cumulatively considerable impacts related to geology, soils, and mineral resources	<i>None Required</i>	LCC
Greenhouse Gases, Climate Change & Energy		
Impact 4.7-1: Project implementation could generate greenhouse gas emissions that could have a significant impact on the environment and could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases	<i>Minimized to the greatest extent feasible through General Plan Goals, Policies, and Implementation Measures. No feasible mitigation is available.</i>	SU
Impact 4.7-2: Project implementation has the potential to result in a significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources, or conflict with or obstruct a state or local plan for renewable energy or energy efficiency	<i>None Required</i>	LS
Future development associated with the General Plan Update and cumulative development would result in cumulatively considerable impacts related to greenhouse gas emissions and/or energy	<i>Minimized to the greatest extent feasible through General Plan Goals, Policies, and Implementation Measures. No feasible mitigation is available.</i>	CC
Hazards and Hazardous Materials		
Impact 4.8-1: General Plan implementation has the potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment	<i>None Required</i>	LS
Impact 4.8-2: General Plan implementation has the potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school	<i>None Required</i>	LS

CC – cumulatively considerable

NI – no impact

LCC – less than cumulatively considerable

SU – significant and unavoidable

LS – less than significant

Environmental Impact	Mitigation Measure	Resulting Level of Significance
Impact 4.8-3: General Plan implementation has the potential to have projects located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5	<i>None Required</i>	LS
Impact 4.8-4: The General Plan, located within an airport land use plan, would not result in a safety hazard or excessive noise for people residing or working in the project area	<i>None Required</i>	LS
Impact 4.8-5: General Plan implementation does not have the potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan	<i>None Required</i>	LS
Impact 4.8-6: General Plan implementation does not have the potential to expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires	<i>None Required</i>	LS
Future development associated with the General Plan Update would not result in cumulatively considerable impacts related to hazardous materials.	<i>None Required</i>	LCC
Hydrology and Water Quality		
Impact 4.9-1: General Plan implementation could violate water quality standards or waste discharge requirements or otherwise substantially degrade water quality or obstruct implementation of a water quality control plan	<i>None Required</i>	LS
Impact 4.9-2: General Plan implementation could result in the depletion of groundwater supplies, interfere substantially with groundwater recharge or conflict with a groundwater management plan	<i>None Required</i>	LS
Impact 4.9-3: General Plan implementation could alter the existing drainage pattern in a manner which would result in	<i>None Required</i>	LS

CC – cumulatively considerable

LCC – less than cumulatively considerable

LS – less than significant

NI – no impact

SU – significant and unavoidable

Environmental Impact	Mitigation Measure	Resulting Level of Significance
substantial erosion, siltation, flooding, impeded flows, or polluted runoff		
Impact 4.9-4: General Plan implementation would not release pollutants due to project inundation by flood hazard, tsunami, or seiche	<i>None Required</i>	LS
Future development associated with the General Plan Update and cumulative development would not result in cumulatively considerable impacts related to hydrology and water quality	<i>None Required</i>	LCC
Land Use and Planning		
Impact 4.10-1: General Plan implementation has the potential to physically divide an established community	<i>None Required</i>	LS
Impact 4.10-2: General Plan implementation could conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect	<i>None Required</i>	LS
Future development associated with the General Plan Update and cumulative development would not result in cumulatively considerable impacts related to land use	<i>None Required</i>	LCC
Noise		
Impact 4.11-1: Traffic noise associated with the General Plan Update could expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies or result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project	<i>None Required</i>	LS
Impact 4.11-2: Stationary noise sources associated with the General Plan Update could expose persons to or generate	<i>None Required</i>	LS

CC – cumulatively considerable

LCC – less than cumulatively considerable

LS – less than significant

NI – no impact

SU – significant and unavoidable

Environmental Impact	Mitigation Measure	Resulting Level of Significance
noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies or result in a substantial permanent or periodic increase in ambient noise levels in the project vicinity above levels existing without the project		
Impact 4.11-3: The General Plan would not expose people residing or working in the project area to excessive noise levels within two miles of a public airport or public use airport	<i>None Required</i>	LS
Impact 4.11-4: Construction noise associated with the General Plan could result in substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project	<i>None Required</i>	LS
Impact 4.11-5: Construction vibration associated with the project could expose of persons to or result in generation of excessive groundborne vibration levels	<i>None Required</i>	LS
Impact 4.11-6: The General Plan could expose persons to railroad noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies	<i>None Required</i>	LS
Future development associated with the General Plan Update would not result in cumulatively considerable impacts related to noise	<i>None Required</i>	LCC
Population and Housing		
Impact 4.12-1: General Plan implementation has the potential to induce substantial 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)	<i>None Required</i>	LS

CC – cumulatively considerable

LCC – less than cumulatively considerable

LS – less than significant

NI – no impact

SU – significant and unavoidable

Environmental Impact	Mitigation Measure	Resulting Level of Significance
Impact 4.12-2: General Plan implementation has the potential to displace substantial numbers of existing people or housing necessitating the construction of replacement housing elsewhere	<i>None Required</i>	LS
Future development associated with the General Plan Update would not result in cumulatively considerable impacts related to population and housing	<i>None Required</i>	LCC
Public Services and Recreation		
Impact 4.13-1: General Plan implementation could result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services including: Fire protection	<i>None Required</i>	LS
Impact 4.13-2: General Plan implementation could result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services including: Police protection	<i>None Required</i>	LS
Impact 4.13-3: General Plan implementation could result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental	<i>None Required</i>	LS

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SU – significant and unavoidable

Environmental Impact	Mitigation Measure	Resulting Level of Significance
facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services including: Schools		
Impact 4.13-4: General Plan implementation could result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services including: Other public facilities	<i>None Required</i>	LS
Impact 4.13-5: General Plan implementation may result in adverse physical impacts associated with the deterioration of existing parks and recreation facilities and require the construction of new parks and recreation facilities which might have an adverse physical effect on the environment	<i>None Required</i>	LS
Future development associated with the General Plan Update would not result in cumulatively considerable impacts related to public services and recreation	<i>None Required</i>	LCC
Transportation and Circulation		
Impact 4.14-1: General Plan implementation would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities	<i>None Required</i>	LS
Impact 4.14-2: General Plan implementation would conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (a)	<i>Minimized to the greatest extent feasible through General Plan Goals, Policies, and Implementation Measures. No feasible mitigation is available.</i>	SU

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LS – less than significant

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SU – significant and unavoidable

Environmental Impact	Mitigation Measure	Resulting Level of Significance
Impact 4.14-3: General Plan implementation would not substantially increase hazards due to a geometric design feature or incompatible use	<i>None Required</i>	LS
Impact 4.14-4: General Plan implementation would not result in inadequate emergency access	<i>None Required</i>	LS
Future development associated with the General Plan Update and cumulative development would not result in cumulatively considerable impacts related to transportation	<i>None Required</i>	CC
Utilities and Service Systems		
Impact 4.15-1: General Plan implementation could result in insufficient water supplies available to serve the City and reasonably foreseeable future development during normal, dry and multiple dry years	<i>None Required</i>	LS
Impact 4.15-2: General Plan implementation would not require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects	<i>None Required</i>	LS
Impact 4.15-3: General Plan implementation would not have the potential to result in a determination by the wastewater treatment provider which serves or may serve the Project that it does not have adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments	<i>None Required</i>	LS
Impact 4.15-4: General Plan implementation may require or result in the relocation or construction of new or expanded wastewater facilities, the construction or relocation of which could cause significant environmental effects	<i>None Required</i>	LS
Impact 4.15-5: Implementation of the General Plan may result in new or expanded stormwater drainage facilities the	<i>None Required</i>	LS

CC – cumulatively considerable

NI – no impact

LCC – less than cumulatively considerable

SU – significant and unavoidable

LS – less than significant

Environmental Impact	Mitigation Measure	Resulting Level of Significance
construction of which could cause significant environmental effects		
Impact 4.15-6: General Plan implementation would comply with federal, state, and local management and reduction statutes and regulations related to solid waste, would not generate solid waste in excess of State or local standards or otherwise impair the attainment of solid waste reduction goals, and would not exceed of the capacity of local infrastructure	<i>None Required</i>	LS
Impact 4.15-7: Implementation of the General Plan may result in new or expanded electrical, natural gas, and telecommunication services facilities, the construction of which could cause significant environmental effects	<i>None Required</i>	LS
Future development associated with the General Plan Update and cumulative development would not result in cumulatively considerable impacts related to utilities and service systems.	<i>None Required</i>	LCC
Wildfire		
Impact 4.16-1: General Plan implementation has the potential to substantially impair an adopted emergency response plan or emergency evacuation plan as a result of the Study Area including lands located in or near state responsibility areas or lands classified as very high fire hazard severity zones	<i>None Required</i>	LS
Impact 4.16-2: Due to slope, prevailing winds, and other factors, General Plan implementation has the potential to exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire	<i>None Required</i>	LS

CC – cumulatively considerable

LCC – less than cumulatively considerable

LS – less than significant

NI – no impact

SU – significant and unavoidable

Environmental Impact	Mitigation Measure	Resulting Level of Significance
Impact 4.16-3: General Plan implementation could 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	<i>None Required</i>	LS
Impact 4.16-4: General Plan implementation could 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	<i>None Required</i>	LS
Future development associated with the General Plan Update would not result in cumulatively considerable impacts related to wildfire	<i>None Required</i>	LCC

CC – cumulatively considerable

NI – no impact

LCC – less than cumulatively considerable

SU – significant and unavoidable

LS – less than significant

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1.1 INTRODUCTION

State law requires every city and county in California to prepare and maintain a planning document called a general plan. A general plan is a “constitution” or “blueprint” for the future physical development of a county or city. The City of Martinez began a comprehensive update to the City’s current General Plan in 2010. As part of the Martinez General Plan Update process, a General Plan Existing Conditions Report was prepared to establish a baseline of existing conditions in the City.

The updated Martinez General Plan includes a framework of goals, policies, and actions (implementation measures) that will guide the community toward its common vision. The General Plan is supported with a variety of maps, including a Land Use Map and Circulation Diagram.

MARTINEZ GENERAL PLAN UPDATE

General Plan

The Martinez General Plan (General Plan, General Plan Update, or proposed project) is the overarching policy document that guides land use, housing, transportation, open space, public safety, community services, and other policy decisions throughout the City of Martinez and the Sphere of Influence (collectively referred to as the Study Area). The General Plan includes the eight elements mandated by State law, to the extent that they are relevant locally, including: Circulation, Conservation, Housing, Land Use, Noise, Open Space, Environmental Justice, and Safety. General plans must also address the topics of climate change and resiliency planning, either as separate elements or as part of other required elements. At the discretion of each jurisdiction, the general plan may combine these elements and may add optional elements relevant to the physical features of the jurisdiction. The City may also address other topics of interest; this General Plan includes elements related to Historic, Cultural & Arts, Parks & Community Facilities, Environmental Justice (EJ) & Disadvantaged Communities, and Growth Management. The General Plan sets out the goals, policies, and implementation measures in each of these areas, serves as a policy guide for how the City will make key planning decisions in the future, and guides how the City will interact with Contra Costa County, surrounding cities, and other local, regional, State, and Federal agencies.

Environmental Impact Report

The California Environmental Quality Act (CEQA) requires that all State and local agencies consider the potential environmental impacts of projects over which they have discretionary authority. An Environmental Impact Report (EIR) is intended to provide decision-makers and the public with information concerning the potential environmental impacts of a proposed project, possible ways to reduce or avoid the possible significant environmental impacts, and identify alternatives to the project. An EIR must also disclose significant impacts that cannot be avoided; growth inducing impacts; effects found not to be significant; as well as significant cumulative impacts of all past, present, and reasonably anticipated future projects.

1.0 INTRODUCTION

An EIR responds to the requirements of the California Environmental Quality Act (CEQA) as set forth in Sections 15126, 15175, and 15176 of the CEQA Guidelines. The Planning Commission and City Council will use the EIR during the General Plan Update process in order to understand the potential environmental implications associated with implementing the General Plan. This EIR was prepared concurrently with the General Plan policy document in order to facilitate the development of a General Plan that is largely self-mitigating. In other words, as environmental impacts associated with the new General Plan, including the Land Use Map, were identified; policies and implementation measures were incorporated into the General Plan policy document in order to reduce or avoid potential environmental impacts.

1.2 PURPOSE OF THE EIR

The City of Martinez, as lead agency, determined that the Martinez General Plan Update is a "project" within the meaning of CEQA. CEQA requires the preparation of an EIR prior to approving any project that may have a significant impact on the environment. For the purposes of CEQA, the term "project" refers to the whole of an action, which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]).

This Revised Draft EIR has been prepared according to CEQA requirements to evaluate the potential environmental impacts associated with the implementation of the Martinez General Plan. A copy of the Revised Draft General Plan is located on the Martinez General Plan Update website, at CityofMartinez.org. The Revised Draft EIR also discusses alternatives to the General Plan, and identifies any mitigation measures that will offset, minimize, or otherwise avoid potentially significant environmental impacts. This Revised Draft EIR has been prepared in accordance with CEQA, California Resources Code Section 21000 et seq.; the Guidelines for the California Environmental Quality Act (California Code of Regulations, Title 14, Chapter 3); and the rules, regulations, and procedures for implementing CEQA as adopted by the City of Martinez.

An EIR must disclose the expected direct and indirect environmental impacts associated with a project, including impacts that cannot be avoided, growth-inducing effects, impacts found not to be significant, and significant cumulative impacts, as well as identify mitigation measures and alternatives to the proposed project that could reduce or avoid its adverse environmental impacts. CEQA requires government agencies to consider and, where feasible, minimize significant environmental impacts of proposed development.

1.3 TYPE OF EIR

The State CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a Program EIR pursuant to CEQA Guidelines Section 15168. Section 15168 states:

“A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:

- 1) Geographically;

- 2) As logical parts in the chain of contemplated actions;
- 3) In connection with issuance of rules, regulations, plans or other general criteria to govern the conduct of a continuing program; or
- 4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.”

The program-level analysis considers the broad environmental effects of the proposed project. This EIR will be used to evaluate subsequent projects and activities under the proposed project. This EIR is intended to provide the information and environmental analysis necessary to assist public agency decision-makers in considering approval of the proposed project, but not to the level of detail to consider approval of subsequent development projects that may occur after adoption of the General Plan.

Additional environmental review under CEQA may be required for subsequent projects and would be generally based on the subsequent project’s consistency with the General Plan and the analysis in this EIR, as required under CEQA. It may be determined that some future projects or infrastructure improvements may be exempt from environmental review. When individual subsequent projects or activities under the General Plan are proposed, the lead agency that would approve and/or implement the individual project will examine the projects or activities to determine whether their effects were adequately analyzed in this program EIR (CEQA Guidelines Section 15168). If the projects or activities would have no effects beyond those disclosed in this EIR, no further CEQA compliance would be required.

1.4 INTENDED USES OF THE EIR

The City of Martinez, as the lead agency, has prepared this EIR to provide the public and responsible and trustee agencies with an objective analysis of the potential environmental impacts resulting from adoption of the Martinez General Plan Update and subsequent implementation of the General Plan. The environmental review process enables interested parties to evaluate the proposed project in terms of its environmental consequences, to examine and recommend methods to eliminate or reduce potential adverse impacts, and to consider a reasonable range of alternatives to the project. While CEQA requires that consideration be given to avoiding adverse environmental effects, the lead agency must balance adverse environmental effects against other public objectives, including the economic and social benefits of a project, in determining whether a project should be approved.

This EIR will be used as the primary environmental document to evaluate all subsequent planning and permitting actions associated with the General Plan. Subsequent actions that may be associated with the General Plan are identified in Section 2.0, Project Description. This EIR may also be used by other agencies within Contra Costa County.

1.5 KNOWN RESPONSIBLE AND TRUSTEE AGENCIES

The term “Responsible Agency” includes all public agencies other than the Lead Agency that have discretionary approval power over the project or an aspect of the project (CEQA Guidelines Section 15381). For the purpose of CEQA, a “Trustee” agency has jurisdiction by law over natural resources that are held in trust for the people of the State of California (CEQA Guidelines Section 15386). While no Responsible Agencies or Trustee Agencies are responsible for approvals associated with adoption of the Martinez General Plan, implementation of future projects within Martinez may require permits and approvals from such agencies, which may include the following:

- California Department of Fish and Wildlife (CDFW);
- California Department of Transportation (Caltrans);
- Regional (San Francisco Bay) Water Quality Control Board (RWQCB);
- U.S. Army Corps of Engineers (ACOE);
- U.S. Fish and Wildlife Service (USFWS);
- Contra Costa County Local Agency Formation Commission (LAFCO);
- Bay Area Air Quality Management District (BAAQMD); and
- Contra Costa County Airport Land Use Commission (ALUC).

1.6 ENVIRONMENTAL REVIEW PROCESS

The review and certification process for the EIR has involved, or will involve, the following general procedural steps:

NOTICE OF PREPARATION

The City of Martinez circulated a Notice of Preparation (NOP) of an EIR for the proposed project on January 28, 2022 to trustee and responsible agencies, the State Clearinghouse, and the public. A scoping meeting was held virtually on February 7, 2022 via Zoom. Oral comments on the NOP related to the EIR were presented during the scoping meeting. Additionally, during the 30-day public review period for the NOP, which ended on February 28, 2022, five written comment letters were received on the NOP. A summary of the NOP comments is provided later in this chapter. The NOP and all comments received on the NOP are presented in Appendix A.

DRAFT EIR

This document constitutes the Revised Draft EIR. The Revised Draft EIR contains a description of the project, description of the environmental setting, identification of the project’s direct and indirect impacts on the environment and any mitigation measures for impacts found to be significant, as well as an analysis of project alternatives, identification of significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. This Revised Draft EIR identifies issues determined to have no impact or a less than significant impact, and provides detailed analysis of potentially significant and significant impacts. Comments received in response to the NOP were considered in preparing the analysis in this EIR. Upon completion of the Revised Draft EIR, the City of Martinez will file the Notice of Completion (NOC) with the State Clearinghouse of the Governor’s Office of Planning and Research to begin the public review period.

PUBLIC NOTICE/PUBLIC REVIEW

Concurrent with the NOC, the City of Martinez will provide a public notice of availability for the Revised Draft EIR, and invite comment from the general public, agencies, organizations, and other interested parties. Consistent with CEQA requirements, the review period for this Draft EIR is forty-five (45) days. Public comment on the Draft EIR will be accepted in written form. All comments or questions regarding the Revised Draft EIR should be addressed to:

Hector Rojas
Planning Manager
Community Development Department, Planning Division
City of Martinez
525 Henrietta Street
Martinez, CA 94553
hrojas@cityofmartinez.org

RESPONSE TO COMMENTS/FINAL EIR

Following the public review period, a Final EIR will be prepared. The Final EIR will respond to comments received during the public review period.

CERTIFICATION OF THE EIR/PROJECT CONSIDERATION

The City of Martinez City Council will review and consider the Final EIR. If the City finds that the Final EIR is "adequate and complete," the City Council may certify the Final EIR in accordance with CEQA. As set forth by CEQA Guidelines Section 15151, the standards of adequacy require an EIR to provide a sufficient degree of analysis to allow decisions to be made regarding the proposed project that intelligently take account of environmental consequences.

Upon review and consideration of the Final EIR, the City Council may take action to approve, revise, or deny the project. If the EIR determines that the project would result in significant adverse impacts to the environment that cannot be mitigated to less than significant levels, the City Council would be required to adopt a statement of overriding considerations as well as written findings in accordance with State CEQA Guidelines Sections 15091 and 15093. If additional mitigation measures are required (beyond the General Plan policies and implementation measures that reduce potentially significant impacts, as identified throughout this EIR), a Mitigation Monitoring and Reporting Program (MMRP) would also be adopted in accordance with Public Resources Code Section 21081.6(a) and CEQA Guidelines Section 15097 for mitigation measures that have been incorporated into or imposed upon the project to reduce or avoid significant effects on the environment. The MMRP would be designed to ensure that these measures are carried out during project implementation, in a manner that is consistent with the EIR.

1.7 ORGANIZATION AND SCOPE

Sections 15122 through 15132 of the State CEQA Guidelines identify the content requirements for Draft and Final EIRs. An EIR must include a description of the environmental setting, an environmental impact analysis, significant impacts, alternatives, significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. The EIR prepared reviews environmental and planning documentation developed for the project, environmental and planning documentation prepared for recent projects located within the city of Martinez, and responses to the Notice of Preparation (NOP).

This Draft EIR is organized in the following manner:

EXECUTIVE SUMMARY

The Executive Summary summarizes the characteristics of the proposed Project, known areas of controversy and issues to be resolved, and provides a concise summary matrix of the project's environmental impacts and possible mitigation measures. This chapter identifies alternatives that reduce or avoid at least one significant environmental effect of the proposed project.

SECTION 1.0 - INTRODUCTION

Section 1.0 briefly describes the proposed project, the purpose of the environmental evaluation, identifies the lead, trustee, and responsible agencies, summarizes the process associated with preparation and certification of an EIR, identifies the scope and organization of the Revised Draft EIR, and summarizes comments received on the NOP.

SECTION 2.0 - PROJECT DESCRIPTION

Section 2.0 provides a detailed description of the proposed Project, including the location, intended objectives, background information, the physical and technical characteristics, including the decisions subject to CEQA, subsequent projects and activities, and a list of related agency action requirements.

SECTION 3.0 - BASIS OF CUMULATIVE ANALYSIS

Section 3.0 describes the approach taken and methodology for the cumulative environmental analysis.

CHAPTER 4.0 - ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

Section 4.0 evaluates the impacts associated with implementation of the General Plan Update. This section is organized according to issue area. Each area includes a description of the environmental and regulatory setting relative to that issue; the CEQA thresholds for the specific issue area; and the environmental impacts of the proposed project. Implementation of General Plan Update goals, policies, and implementation measures and their ability to reduce potential impacts are described in the Impacts and Mitigation Measures subsection.

Impacts and General Plan Update goals, policies and implementation measures are generally organized according to the topical areas. However, an impact or General Plan Update goals, policies, or implementation measures location within the document should not restrict it from being considered under another issue topic, even though omitted from that section. Many of the impacts relating to the General Plan Update are multi-faceted. Similarly, the goals, policies, and implementation measures may accomplish several objectives and reduce more than one impact. It is important that decision-makers be cognizant of this fact in their consideration and use of this document. If goals, policies, and implementation measures are altered, the affect that would have on other issues should be evaluated.

SECTION 5.0 - OTHER CEQA-REQUIRED TOPICS

Section 5.0 discusses the long-term implications of the proposed action. Irreversible environmental changes that would be involved in the proposed action, should it be implemented, are considered. The project's growth-inducing impacts, significant and unavoidable impacts, and other substantial adverse effects are also discussed.

SECTION 6.0 - ALTERNATIVES

Section 6.0 provides a comparative analysis between the merits of the proposed project and the selected alternatives. State CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the project, which could feasibly attain the basic objectives of the project and avoid and/or lessen any significant environmental effects of the project.

SECTION 7.0 - REPORT PREPARERS

Section 7.0 lists all authors and agencies that assisted in the preparation of the Revised Draft EIR, by name, title, and company or agency affiliation.

APPENDICES

This section includes all notices and other procedural documents pertinent to the Revised Draft EIR, as well as technical material prepared to support the analysis.

1.8 COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

The City received five written comment letters on the NOP. Copies of these letters are provided in Appendix A of this Draft EIR and the comments are summarized below. The City received the following comment letters:

- Bay Area Air Quality Management District (February 28, 2022): The Bay Area Air Quality Management District (Air District) recommends the Revised Draft EIR address the following: the General Plan's potential effects on local and regional air quality; the Air District's attainment status for all criteria pollutants and the implications for the region if these standards are not attained or maintained by statutory deadlines; the General Plan's consistency with the Air District's 2017 Clean Air Plan (2017 CAP) and 2017 CAP measures relevant to the Plan; the Plan's consistency with the California Air

Resources Board's most recent Assembly Bill (AB) 32 Scoping Plan and the State's 2030, 2045, and 2050 climate goals; and SB 1000. Additional recommendations include an evaluation of all feasible measures to minimize air pollutant emissions and exposure, and that the EIR should prioritize onsite measures within the Plan area, followed by offsite measures.

- California Department of Transportation (February 25, 2022): The California Department of Transportation (Caltrans) requests that: the General Plan Update is consistent with California Government Code Section 65088-65089.10, Congestion Management; and that the City gain a determination of conformity from the Contra Costa Transportation Authority to determine that the General Plan Update is consistent with and conforms to the Regional Transportation Plan Consistency Requirements of the County's Congestion Management Plan (CMP). A Regional Transportation Plan (Plan Bay Area 2050) project is suggested for fair share contributions, and a reminder regarding access considerations that consider Caltrans' equity mission to provide a safe, sustainable, and equitable transportation network for all users.
- East Bay Regional Park District (February 28, 2022): The East Bay Regional Park District (Park District) requests that the City address concerns regarding the North Downtown Shoreline Block #1, SF Bay Trail, and Briones to CA State Riding and Hiking Trail.
- Harlan Strickland (February 28, 2022): Mr. Strickland provided documents regarding economic considerations, including a list of fiscal concerns, a fiscal concerns letter, and a housing element spreadsheet, and urges the City to include economic ramifications of the General Plan Update to be included in the scope of the Revised Draft EIR.
- Tim Platt (February 28, 2022): Mr. Platt provided a list of issues that the EIR should cover, including: that the EIR process should be restarted from scratch; impacts from the conversion of farmland in the Viano area; impacts from the housing and retail/commercial development on the waterfront north of the train tracks; impacts of the increase in population and housing density on traffic and parking; impacts on fire safety due to greater housing density and more crowded streets; impacts on parks and trails; impacts on available state-wide water resources and availability; identifying areas of improvement and ensuring demand is met with regards to parks, trails, open space, cultural and community facilities, the marina, schools, etc.; impacts of new land use designations and development plans on historic buildings; impacts on City susceptibility to lawsuits or other costs; and impacts on economic development. Mr. Platt also suggests waiting to prepare the EIR until completion of the updated Housing Element.

2.1 GENERAL PLAN BACKGROUND AND OVERVIEW

STATE GENERAL PLAN LAW

California Government Code Section 65300 et seq. requires every city and county in the State to prepare and maintain a general plan for the long-term growth, development, and management of the land within the jurisdiction's planning boundaries. The general plan acts as a "constitution" for development, and is the City's lead legal document in relation to growth, development, and resource management issues. Development regulations (e.g., zoning and subdivision standards and public improvement plans and projects, such as a Capital Improvement Program) are required by law to be consistent with the General Plan.

General plans must address a broad range of topics, including, at a minimum, the following mandatory elements: land use, circulation, housing, conservation, open space, noise, and safety. Cities that have disadvantaged communities must also address environmental justice in their General plans, including air quality. General plans must also address the topics of climate change and resiliency planning, either as separate elements or as part of other required elements. At the discretion of each jurisdiction, the General Plan may combine these elements and may add optional elements relevant to the physical features and local concerns of the jurisdiction.

The California Government Code also requires that a General Plan be comprehensive, internally consistent, and plan for the long term. The General Plan should be clearly written, easy to administer, and available to all those concerned with the community's development.

Housing element law requires local governments to adequately plan to meet their existing and projected housing needs, including their share of the regional housing needs allocation (California Government Code Sections 65580-65588). Government Code Section 65583(a)(3) requires local governments to prepare an inventory of land suitable for residential development, including vacant sites and sites having the potential for redevelopment, and an analysis of the relationship of zoning and public facilities and services to these sites. The inventory of land suitable for residential development shall be used to identify sites that can be developed for housing within the planning period. The housing element must identify and analyze potential and actual governmental constraints to the maintenance, improvement, or development of housing for all income levels, including housing for people with disabilities. Each jurisdiction must identify specific programs in its housing element that will allow it to implement the stated policies and achieve the stated goals and objectives.

State planning and zoning law (California Government Code Section 65000 et seq.) establishes that zoning ordinances are required to be consistent with the general plan and any applicable specific plans, area plans, master plans, and other related planning documents. When amendments to the general plan are made, corresponding changes in the zoning ordinance may be required within a reasonable time to ensure consistency between the revised land use designations in the general plan (if any) and the permitted uses or development standards of the zoning ordinance (Gov. Code Section 65860, subd. [c]).

GENERAL PLAN AND DRAFT PROGRAM EIR BACKGROUND

The City began a comprehensive update to the current General Plan in 2010. The City's outreach process, described below, resulted in the completion of an Initial Draft 2035 General Plan document. On May 26, 2015, the City of Martinez issued a Notice of Preparation for the Martinez General Plan Draft Environmental Impact Report (EIR). On September 15, 2015, the City issued a Notice of Availability for the City of Martinez 2035 General Plan and Draft Program EIR. The City provided a 45-day comment period for the City of Martinez 2035 General Plan and Draft Program EIR and conducted various public hearings before the Planning Commission and City Council; however, the 2035 General Plan was never adopted. The 2035 General Plan and Draft Program EIR (September 2015) were subsequently updated and in November 2021, the City issued an updated Draft 2035 General Plan for comment. On January 28, 2022, the City issued a Notice of Preparation for the Martinez General Plan Update EIR. This Revised Draft EIR will replace in full the Draft EIR issued in September of 2015. Pursuant to CEQA Guidelines Section 15088.5(f)(1), the Revised Draft Program EIR will be recirculated in its entirety and reviewers will be required to submit new comments.

GENERAL PLAN OUTREACH AND PUBLIC INPUT

The process to update the Martinez General Plan began in 2010 and is scheduled to be completed with the adoption of the General Plan in late 2022. The Martinez General Plan Update (General Plan Update) was created through the contributions of decision makers, the General Plan Update Task Force, individual residents, and representatives of many organizations in the community, and reflects the community's vision for Martinez. A summary of the community outreach and public participation process is provided below.

General Plan Update Task Force

The General Plan Update Task Force (Task Force) was involved in the update effort, helping to formulate and participate in outreach to the community, identifying issues of concern, assisting with formulating a vision for the General Plan, hearing from experts on various topics, providing an opportunity for key property owners to provide their ideas, and reviewing background materials and policy choices. The Task Force met publicly 20 times from June 2010 through April 2012.

General Plan Outreach

As part of the update process an extensive outreach process was conducted with various interest groups in the City and the community as a whole. Activities conducted between September 2010 and January 2011 included: community workshops held in four different parts of the City; a survey of 230 eighth-graders at Martinez junior high school; use of the City's website/User Voice Survey to pose questions and obtain responses similar to the workshops; and outreach to various stakeholder groups and neighborhood coffees conducted by Task Force members. Comments received from the General Plan outreach efforts are summarized in a Community Conversations Report which can be found at City Hall.

Downtown Matters

In 2011, the City embarked upon an ambitious effort to involve people in identifying needed improvements and activities in the Downtown. The effort was called “Downtown Matters! Make it Real and Making it Happen!” Downtown Matters was comprised of a series of six community outreach events, including four workshops and tours of revitalized downtowns located in Redwood City, Lodi, and Livermore. This series was part of the General Plan update process and helped to identify the choices, trade-offs, priorities, and strategic actions required for Downtown to prosper in the 21st century.

White Papers

Following release of the Draft General Plan 2035 for public review in September 2015, the City staff produced four “white papers,” or policy papers addressing specific issues raised in comments received by the City on the draft plan. White paper topics included: 1) trail segments; 2) a project alternative identified in the General Plan Draft EIR to preserve unique farmland located at 180 Morello Avenue; 3) the proposed land use designation for 635 Vine Hill Way; and 4) proposed land use designations for the Downtown. The Planning Commission and the City Council reviewed the white papers at noticed public meetings, and the Council’s policy direction was incorporated in a revised draft that was released to the public in 2017.

Measure I

In June of 2018, the voters of the City of Martinez approved Measure I - an Initiative Measure Amending the current Martinez General Plan to Create a Protected Open Space and Parks Overlay Designation, Apply the Overlay to Certain Properties as Set Forth in the 1973 General Plan and Adopt Land Use Regulations Thereto.

Litigation relating to Measure I was thereafter commenced and ultimately settled through the adoption of a Settlement Agreement and implementing actions which were incorporated into the current General Plan by the adoption of Resolution 115-19 by the City Council on August 18, 2019. City Council Resolution 115-19 clarified certain provisions of Measure I consistent with the terms of the Settlement Agreement. These provisions have been incorporated into the General Plan Update.

City Council and Planning Commission

The Draft General Plan and General Plan Draft Environmental Impact Report (Draft EIR) will be reviewed at public meetings of the Planning Commission and the City Council.

Public Outreach

For all public workshops and meetings, the Martinez Community Development Department conducted extensive outreach, using a wide variety of methods and tools, to inform and encourage the community to participate in the General Plan update process. The following is a list of methods and tools used to inform the public of meetings, workshops, and the status of the General Plan update work efforts.

2.0 PROJECT DESCRIPTION

- **City Website:** The City maintains a website page (General Plan Update | Martinez, CA (cityofmartinez.org)) devoted to informing the public about, and encouraging participation in, the General Plan update process. The website includes the General Plan Update Work Program, Summary of Community Comments and “Working Vision 2035”, Martinez Community Conversations Report, and the existing General Plan.
- **Local Newspapers and Media:** Public notices, meeting notices, press releases, and/or public service announcements were published in the local media prior to each public meeting or workshop.

2.2 PROJECT CHARACTERISTICS AND BACKGROUND

PROJECT LOCATION AND SETTING

Martinez is a city in central Contra Costa County that has a total area of 13.1 square miles, of which 12.1 square miles is land and one square mile is water. The City of Martinez is the County seat, located on the south side of the Carquinez Strait. The City is bordered by Carquinez Strait/Solano County to the north, the Cities of Pleasant Hill and Concord to the southeast, and unincorporated Contra Costa County to the west and northeast. See Figure 2-1.

The City of Martinez is located mostly west of the Interstate 680 (I-680), which runs north-south, and is bisected by State Route 4 (SR 4), which runs east-west. Traffic to and from the I-680 corridor is served by SR 4, Pacheco Boulevard, and Marina Vista Avenue. Traffic to and from the SR 4 corridor is served by Pacheco Boulevard, Morello Avenue, Center Avenue-Pine Street, and Alhambra Avenue.

Access to and from the North Bay, including the Counties of Solano and Sonoma, is provided via I-680 (via the Benicia-Martinez Bridge) or State Route 4 via I-80. Access to and from Contra Costa County both east and west is provided by SR 4. Additionally, access to and from the south is provided by I-680 which serves both Contra Costa County and Alameda County.

The City’s residential and commercial areas represent a wide variety of land uses, from the intermingling of residential and commercial uses Downtown, to the rich design quality and character of older neighborhoods adjacent to the Downtown, and then the more prevalent twentieth-century suburban-type land use patterns separating the City’s commercial centers. The City provides many advantages of urban living, while at the same time maintaining a connected feeling in its residential neighborhoods along with a distinctive Downtown. Careful planning and community involvement regarding development in the City and the surrounding area has preserved important physical features, such as ridgelines, hillsides, and natural areas, while providing for necessary services, employment, and a diversity of housing opportunities.

STUDY AREA

In addition to the City proper, State law requires that a municipality adopt a General Plan that addresses “any land outside its boundaries which in the planning agency’s judgment bears relation to its planning (California Government Code §65300).” This includes the City’s Sphere of Influence (SOI), which encompasses the unincorporated areas that are related to the City’s current and desired

land use planning and growth. The SOI includes all lands within the City's jurisdiction as well as small areas within Alhambra Valley and a much larger area east of the City and north of Highway 4 that predominantly includes industrial, open space, and some residential uses, as shown on Figure 2-2.

2.3 PROJECT DESCRIPTION

The General Plan Update contains a set of public goals and policies to guide the future development and maintenance of the physical environment in Martinez. In a broad sense, the General Plan Update addresses issues related to sustaining Martinez's quality of life. These issues include enhancing the Downtown as the central focus of the community, protecting residential neighborhoods and environmental resources; balancing future development with the provision of adequate services, facilities and infrastructure; collaborating on regional planning efforts; and providing for economic development to maintain a high level of City services. Upon adoption, the General Plan Update will replace the City's existing General Plan, which was adopted in 1973 with subsequent updates to various elements.

The City is updating the Housing Element, which will address the City's Regional Housing Needs Allocation and the 2023-2031 planning period, in a process separate from the General Plan Update.

The City will implement the General Plan by requiring development, infrastructure improvements, and other projects to be consistent with its policies and by implementing the actions included in the Plan, including subsequent project-level environmental review, as required under CEQA.

PROJECT OBJECTIVES

The following objectives are identified for the proposed update to the General Plan:

- Retain Martinez's unique, small-town historic character within its larger suburban context of Central Contra Costa County;
- Maintain and enhance Martinez's vibrant, eclectic downtown, set within pedestrian-oriented neighborhoods made up of varied and traditionally designed homes, as the central focus of the community;
- Ensure neighborhoods will retain their livable mix of quality and varied housing opportunities, convenient and appropriately-scaled commercial areas, and plentiful parks and open spaces;
- Provide a vibrant economy linked to a viable community social structure and by conserving the ecosystem, environmental resources, and built environment that support it;
- Attract visitors due to Martinez's unique small-town character, shops, restaurants, waterfront recreation, surrounding natural beauty and role as the County seat;
- Balance future development with the provision of adequate services, facilities, and infrastructure;
- Collaborate on regional planning efforts;
- Meet the City's range of housing needs;
- Provide for economic development to maintain a high level of City services; and
- Address new requirements of State law.

GENERAL PLAN ELEMENTS

The General Plan Update includes a comprehensive set of goals, policies and implementation measures, as well as a revised Land Use Map (Figure 2-2). The State requires that the General Plan contain the following mandatory elements: land use, circulation, housing, conservation, open space, noise, and safety. The City is also required to address environmental justice, including air quality, either as a separate element or as discussion throughout the applicable elements. As previously identified, the Housing Element is being updated through a separate process. The General Plan Update will include all of the State-mandated elements, as well as optional elements, including the Historic, Cultural & Arts Element, Parks & Community Facilities Element, Environmental Justice (EJ) & Disadvantaged Communities Element, and Growth Management Element.

- The **Land Use Element** establishes the framework for the goals, policies, and implementation measures that will shape the physical form of Martinez over the next 20 years. The Land Use Element addresses the intensity and distribution of land uses and identifies areas of the City where change will be encouraged and those areas where the existing land use patterns will be maintained and enhanced. The Land Use Element addresses how land uses will develop and provides a framework for addressing the potential effect of land use and development decisions on disadvantaged communities.

The Land Use Element establishes the land use designations, including the allowed uses, intensities, and densities of development for each parcel in the City limits and SOI, established by the Land Use Map (Figure 2-2), including the Protected Open Space and Parks Overlay (POPO) designation which reflects the overlay adopted by voter initiative (Measure I) in June of 2018. The Land Use Element has been updated to include revisions to the land use designations (see Table 2-1) and associated densities and floor area ratios, revisions to the Land Use Map (see Figure 2-2 and Table 2-1), revised policies and implementation measures to address hillside development, aesthetics, light, and glare, and provisions to address environmental justice, ensuring consideration of adverse effects on disadvantaged communities and methods to address those effects

- The **Circulation Element** correlates closely with the Land Use Element to guide the City's transportation related infrastructure and program growth over the next 20 years. A safe and efficient transportation system is an important contributor to a community's quality of life and economic vitality. The circulation system provides access to homes, employment and educational opportunities, public services, commercial and recreational centers, and regional destinations. The circulation system accommodates travel by automobile, transit, walking, and cycling, and it integrates the needs of railway and truck transport, as well as future discussion and introduction of a ferry service. The Circulation Element has been updated to include a Circulation Plan (see Figure 2-3) depicting planned improvements to the circulation system and revisions to clarify goals, policies, and implementation measures.
- The **Open Space & Conservation Element** combines two State required general plan elements: Open Space (Government Code Section 65302 (e)), and Conservation (Government Code Section 65302 (d)). The Open Space & Conservation Element guides future planning and development in a manner that preserves the community's open space

and natural resources, and encourages resource- and energy-conscious development. The Open Space & Conservation Element addresses the preservation of open space for the conservation of natural resources, and public health and safety related to open space and recreational opportunities and the conservation, development, and use of natural resources, riparian environments, native plant and animal species, agriculture, soils, and mineral resources, and alternative energy. It also details plans and measures for preserving open space for natural resources and the managed production of resources. The Open Space and Conservation Element has been updated to include provisions to enhance stormwater management and revisions to clarify goals, policies, and implementation measures.

- The **Noise & Air Quality Element** establishes standards and policies to protect the community from the harmful and annoying effects of exposure to excessive noise levels, including addressing land use conflicts that may result in exposure to unacceptable noise levels, protect air quality, and address greenhouse gas emissions. This element includes strategies to reduce land use conflicts that may result in exposure to unacceptable noise levels. The Noise & Air Quality Element has been updated to include provisions to address vibration impacts associated with construction, air quality impacts associated with construction and project operations, particularly emissions of dust, diesel particulate matter, and particulate matter 2.5 microns or smaller, exposure to toxic air contaminants, exposure to odors, and potential increased health risks, and to ensure compliance with the City's Climate Action Plan.
- The **Public Safety Element** establishes policies and programs to protect the community from risk associated with geologic, flood, and fire hazards, as well as setting standards for emergency preparedness and addressing climate change adaptation and resilience. The Public Safety Element has been updated to include provisions to address climate change adaptation and resilience and potential hazards associated with tsunamis, seiches, and dam failure events.
- The **Historic, Cultural & Arts Element** (optional element) is designed to foster protection, preservation, and rehabilitation of Martinez's historic and cultural heritage and to strengthen community appreciation and cohesiveness by enhancing cultural and art resources. The Historic, Cultural & Arts Element has been updated to include revisions to identify buildings and sites listed in the National Register of Historic Places and in the California Register of Historical Resources and to enhance policies and implementation measures related to historical, cultural, and archaeological resources.
- The **Parks & Community Facilities Element** (optional element) is designed to ensure access to quality parks, schools, and recreation facilities and services, including documenting existing facilities and services, identifying areas of improvement, and ensuring demand is met as the community grows. The Parks & Community Facilities Element has been updated to include revisions to clarify goals, policies, and implementation measures and updated provisions regarding trails.
- The **Environmental Justice (EJ) & Disadvantaged Communities Element** identifies low income and disadvantage communities within the Study Area. The Environmental Justice

2.0 PROJECT DESCRIPTION

(EJ) & Disadvantaged Communities Element focuses on goals, policies, and implementation measures to improve the conditions and wellness of the community. Together with the policies of other elements, the goals, policies and implementation measures of the Environmental Justice & Disadvantaged Communities Element address the goals of environmental justice for clean air, adequate public facilities, ready access to healthy food, adequate supply of safe and sanitary housing for all income levels, promotion of physical activities and promotion of civic engagement.

- The **Growth Management Element** (optional element) sets forth standards to manage and mitigate the impacts of future growth within Martinez and also has been prepared to meet the growth control requirements of Measure J (Contra Costa County, 2004).
- As part of a separate process, the City is updating the **Housing Element** to address the City's Regional Housing Needs Allocation and the 2023-2031 planning period.

GOALS, POLICIES, AND IMPLEMENTATION MEASURES

Each element of the General Plan Update contains a series of goals, policies, and implementation measures. The goals, policies and implementation measures provide guidance to the City on how to direct change, manage growth, and manage resources over the 20-year life of the General Plan. The following provides a description of each and explains the relationship of each:

- A **goal** is a description of the general desired result that the City seeks to create through the implementation of the General Plan.
- A **policy** is a specific statement that guides decision-making as the City works to achieve its goals. Once adopted, policies represent statements of City regulations. The General Plan's policies set out the standards that will be used by City staff, the Planning Commission, and the City Council in their review of land development projects, resource protection activities, infrastructure improvements, and other City actions. Policies are on-going and do not necessarily require specific action on behalf of the City.
- An **implementation measure** is an action, procedure, technique or specific program to be undertaken by the City to help achieve a specified goal or implement an adopted policy. The City must take additional steps to implement each implementation measure in the General Plan. An implementation measure is something that can and will be completed.

GENERAL PLAN LAND USE MAP

The General Plan Land Use Map identifies land use designations for each parcel within the City of Martinez and the City's SOI. The General Plan Update Land Use Map is attached as Figure 2-2.

General Plan Land Use Designations

The Land Use Element of the General Plan Update defines various land use designations by their allowable uses, maximum development densities, and maximum floor area ratios. The following describes the proposed land use designations for the General Plan Update.

Downtown Core (DC) - This designation is intended for the mixed-use areas at the center of Downtown, with an emphasis on a pedestrian-scale mixture of residential, specialty commercial, tourist, restaurants, cultural, and civic uses. It promotes a mix of residential and commercial uses where ground floor commercial uses are enhanced with residential uses above creating a vibrant commercial core. In addition to rehabilitation and adaptive reuse of historic buildings, development in this area should emphasize new and infill construction that is compatible with the historic structures that give Downtown its unique identity. This area is part of the Downtown Specific Plan area.

Density: From 29.0 to 43.0 dwelling units per acre

Floor Area Ratio: Up to 2.0; Up to 4.0 on the sites denoted as "Downtown Residential Opportunity Area" on the Land Use Map.

Height: Up to 40 feet, or 3 stories. Taller buildings may be approved by the Planning Commission with a use permit.

Downtown Government (DG) - This designation is intended for the two Downtown areas with government facilities. The eastern area consists of existing federal, State, and county facilities centered at Court and Pine Streets at Main Street, and is designated as "Civic" in the Downtown Specific Plan. The core of this designation is the County and State court campus, and the intent of this designation is to provide a center for the existing functions and future expansion of the Contra Costa County government, including administrative, judicial and correctional facilities and for federal, State and local civic facilities. The northern area consists of the Intermodal Transit Station (Amtrak station) at Marina Vista on the south side of the railroad tracks, and the intermodal parking lot on the north side of the tracks connected by a pedestrian bridge. This area is designated as "Downtown Core" and "North Downtown Shoreline" in the Downtown Specific Plan.

Density: 29 to 43 dwelling units per acre

Floor Area Ratio: Up to 3.0; Up to 4.0 on the sites denoted as "Downtown Residential Opportunity Area" on the Land Use Map.

Height: Up to 40 feet, or 3 stories on properties south of the UP Railroad. Up to 30 feet, or two stories on properties north of the UP Railroad. Taller buildings may be approved by the Planning Commission with a use permit for properties south of the Union Pacific railroad.

Downtown Shoreline (DS) - This designation is intended to guide the transformation of a primarily industrial and service commercial area in the northwesterly portion of Downtown into a predominantly residential neighborhood, with the potential for waterfront oriented commercial uses (such as restaurants and hotels) and limited neighborhood serving commercial uses. The prior General Plan land use designation was Study Area. The Downtown Shoreline designation removes the Study Area designation and establishes a new land use designation for the General Plan that is consistent with the Downtown Martinez Specific Plan. Although currently zoned Industrial, industrial uses are no longer consistent with this designation, and they may remain as set forth in the City's non-conforming use ordinance.

Density: From 17.0 to 35.0 dwelling units per acre

2.0 PROJECT DESCRIPTION

Floor Area Ratio: Up to 2.0; Up to 4.0 on the sites denoted as “Downtown Residential Opportunity Area” on the Land Use Map.

Height: Up to 40 feet, or 3 stories on properties south of the UP Railroad. Up to 30 feet, or two stories on properties north of the UP Railroad. Taller buildings may be approved by the Planning Commission with a use permit for properties south of the UP Railroad.

Downtown Transition (DT) - This designation is intended to maintain the character of this traditionally mixed-use area immediately south of the areas designated “Downtown Core” and “Downtown Government”, and north of the residential neighborhoods beyond. This area will continue to contain small scale and locally serving service commercial uses, as well as office and residential uses. New development is envisioned to be primarily multi-family residential. This area spans two land use categories in the Downtown Martinez Specific Plan: “Downtown Core” and “Downtown Neighborhood”.

Density: From 19.0 to 30.0 dwelling units per acre

Floor Area Ratio: Up to 1.5

Residential Very Low (RVL) - This designation is typified by the rural residential neighborhoods that were developed under the County’s jurisdiction, such as Muir Oaks and Franklin Canyon. Development within these areas is limited to single-family homes and related accessory uses that have low intensity characteristics.

Density: Up to 1.0 dwelling unit per acre

Floor Area Ratio: Up to 0.25

Residential Low (RL) - This designation is the single most predominant land use within the City’s jurisdiction. This designation allows single family homes, semi-rural neighborhoods developed under the County’s jurisdiction, and neighborhoods of custom and semi-custom homes, on subdivision lots typically ranging from 5,000 square feet to 20,000 square feet. Paired and attached single family housing units may be possible as part of a planned unit development with common open space areas. Very limited non-residential uses are supported within this designation, subject to the applicable zoning regulations.

Density: From 1.1 to 6.0 dwelling units per acre

Floor Area Ratio: Up to 0.2

Residential Medium (RM) - This designation allows for “small lot/cluster” single-family residential within planned unit developments and townhomes and other multi-family housing. Very limited non-residential uses are supported within this designation, subject to the applicable zoning regulations.

Density: From 6.1 to 12.0 dwelling units per acre

Floor Area Ratio: Up to 0.50

Residential High (RH) - This designation allows for townhomes and other multi-family housing, such as apartments and condominiums units. Very limited non-residential uses are supported within this designation, subject to the applicable zoning regulations.

Density: From 12.1 to 20.0 dwelling units per acre

Floor Area Ratio: Up to 0.75

Residential Very High (RVH) - This designation allows for multi-family housing, such as apartments and condominiums units, at a higher density. Very limited non-residential uses are supported within this designation, subject to the applicable zoning regulations.

Density: From 20.1 to 30.0 dwelling units per acre

Floor Area Ratio: Up to 1.00

Central Residential Low-A (CRL-A) - This designation is intended to continue the established character of this portion of the Central Residential area's pre-WWII hillside residential areas, where streets are generally steep and winding, and home placement was largely dictated by the steep topography. New development is limited to new single-family dwellings on the few remaining vacant lots.

Density: Up to 6.0 dwelling units per acre

Floor Area Ratio: Up to 0.4

Central Residential Low-B (CRL-B) – This designation is intended to maintain the established single-family character of the Central Residential area's outlying neighborhoods, where most all homes were built prior to WWII on 5,000-square-foot lots from the original 1800s survey for "The Town of Martinez", or as part of subsequent pre-WWII subdivisions.

Density: Up to 9.0 dwelling units per acre

Floor Area Ratio: Up to 0.4

Central Residential Low-C (CRL-C) - This designation is the largest in area of the three "Central Residential Mixed Single-Family and Multi-family" designations. The designation most typifies the traditional pattern of development in the area, with single family homes on the 5,000-square-foot interior lots and either duplexes or individual "split lots" (2,500 sq. ft. each) at the 5,000-square-foot corner lots. This designation encourages the continuation of adding new contextually appropriate single-family and duplex in-fill housing.

Density: Up to 17.0 dwelling units per acre

Floor Area Ratio: Up to 0.4

Central Residential Medium (CRM) - This designation applies to the residential areas closer to Martinez City Hall and the Downtown. The areas with this designation are the most eclectic of the "Central Residential Mixed Single-Family and Multifamily" designations. Single-family homes, duplexes, and apartments buildings are interspersed throughout these areas. As with all three "Central Residential Mixed Single-Family and Multifamily" designations, it is at the corner and relatively larger lots where a higher density building can most effectively be integrated into what was historically a single-family context. Many of the existing houses and apartment buildings in the areas with this designation are in a poor state of repair; therefore rehabilitation and/or new construction is very desirable. While the retention and addition of new single-family homes is

2.0 PROJECT DESCRIPTION

permitted, this designation encourages the construction of new duplexes and multi-family buildings on suitable sites.

Density: Up to 30 dwelling units per acre

Floor Area Ratio: Up to 0.4

Central Residential High (CRH) - This designation includes the residential areas closest to the Downtown and is envisioned to have the highest housing density of the three “Central Residential Mixed Single-Family and Multi-family” land use designations.

Density: Up to 35 dwelling units per acre

Floor Area Ratio: Up to 0.4

Alhambra Valley Estate Residential – Very Low Density (AV-ERVL) - The primary land use envisioned for this designation is detached single-family homes on lots typically one acre or larger, with the keeping of a limited number of livestock, consistent with a rural or semi-rural lifestyle.

Density: Up to 1.0 dwelling unit per acre

Floor Area Ratio: Up to 0.2

Alhambra Valley Estate Residential – Low Density (AV-ERL) - The primary land use envisioned in this designation is detached single-family homes on lots typically one-half acre or larger.

Density: From 1.1 to 2.0 dwelling unit per acre)

Floor Area Ratio: Up to 0.2

Alhambra Valley Agricultural Lands (AV-AL) - The only area within the city limits with an agricultural land use designation is the western hills area designated “Alhambra Valley Agricultural Lands (AV-AL)”. This land use designation includes privately owned rural lands, generally in hilly areas that are used for grazing livestock or dry grain farming. The primary purposes of the “Alhambra Valley Agricultural Lands” designation are to: a) preserve and protect lands capable of and generally used for the production of food, fiber and plant materials; and b) provide opportunities for rural residential single family homes.

Density: Maximum density equivalent to a minimum 5 acres per dwelling unit

Floor Area Ratio: Up to 0.1

Alhambra Valley Open Space (AV-OS) - This designation includes publicly-owned open space lands and includes, without limitation, areas of significant ecological resources or geologic hazards that are unique to the Alhambra Valley community. The “Alhambra Valley Open Space” designation also includes privately-owned properties for which future development rights have been deeded to a public or private agency or which have been designated as open space. For example, significant open space areas within planned developments identified as being owned and maintained by a homeowners association fall under this designation. Also included within this designation are the steep, unbuildable portions of approved subdivisions which may be deeded to agencies such as the East Bay Regional Park District but which have not been developed as park facilities.

General Commercial (GC) - This land use designation is applied to areas appropriate for a broad range of retail, service, amusement, wholesale and office uses. Areas with this designation include the City's two aging commercial strips: Alhambra Avenue (between F Street and State Route 4); and Pacheco Boulevard (between Palm Avenue and Interstate 680). Residential use is allowed on upper floors subject to the applicable zoning regulations.

Density: Up to 30 dwelling units per acre

Floor Area Ratio: Up to 1.0

Neighborhood Commercial (CN) - This designation is intended for retail and other services which meet the day-to-day needs of residents. Allowed uses include businesses typically found in convenience and neighborhood shopping centers. Residential uses are allowed on upper floors subject to the applicable zoning regulations.

Density: Up to 9 dwelling units per acre

Floor Area Ratio: Up to 0.5

Commercial Light Industrial (CLI) - This designation is intended to provide sites for commercial businesses that are not appropriate in other areas because of high volumes of vehicle traffic and potential impacts on other uses. This designation allows small-scale commercial and industrial uses that provide goods and services to employees, residents, and visitors. It includes automotive sales and services; building materials; warehouses; distribution and personal storage located on major arterial streets; and retail uses, services, and small offices.

Floor Area Ratio: Up to 0.8

Regional Commercial (CR) - This designation, distinct from the "Neighborhood Commercial" designation, denotes areas with buildings and parking lots of larger scale, intended to serve businesses with a regional focus. The General Plan Land Use Map identifies the two clusters of regionally serving retail along the John Muir Parkway.

Floor Area Ratio: Up to 1.0

Business Park and Office Professional (BPO) - This designation denotes areas of generally non-retail commercial activity, primarily containing office, research and development, and light manufacturing in a well-landscaped, "business park" setting without outdoor storage. Incidental retail serving a primary use may be permitted, subject to the applicable zoning regulations.

Floor Area Ratio: Up to 1.0

Industrial and Manufacturing (IM) - This designation allows primary manufacturing, refining, and similar heavy industrial uses. This designation also supports activities involving refining, storing and transporting petroleum products. Ancillary office uses as well as other manufacturing and warehousing may be permitted, subject to the applicable zoning regulations. No retail uses are allowed.

Floor Area Ratio: Up to 0.4

Environmentally Sensitive Land (ESL) - This designation applies to areas that are environmentally sensitive due to a variety of factors including steep terrain, soils instability, earthquake susceptibility,

2.0 PROJECT DESCRIPTION

wildlife habitat and wildfire risk. These areas are suitable for open space, agriculture, parks and recreation, trails, and very low density residential.

Note: The Protected Open Space and Parks Overlay (POPO) applies to the ESL land use designation; therefore, Land Use Element Policy LU-1.2 and Implementation Measures LU-I-1.2a through LU-I-1.2l shall apply to lands within city limits designated ESL.

Neighborhood Park (NP) - Neighborhood parks are areas in public or private ownership that are for open space and recreation purposes, including picnic areas, sports fields, and playgrounds. They may include ancillary uses supporting active recreation including parking lots, concession stands, small storage structures, and restrooms. They are not intended for residential or commercial development.

Note: The Protected Open Space and Parks Overlay (POPO) applies to the NP land use designation; therefore, Land Use Element Policy LU-1.2 and Implementation Measures LU-I-1.2a through LU-I-1.2l shall apply to lands within city limits designated NP.”

Open Space (OS) - This designation is for public and private lands preserved as scenic or environmental resources, either by public or common interest ownership, or through dedication of scenic open space or other easements or through conditions of development approval or previous designation and zoning action. While alteration of such properties for active recreation is typically not envisioned, naturalistic and agricultural plantings, and trails, may be possible if consistent with the intent of preserving the intended scenic resource and as may be permitted by any easements.

Note: The Protected Open Space and Parks Overlay (POPO) applies to the OS land use designation; therefore, Land Use Element Policy LU-1.2 and Implementation Measures LU-I-1.2a through LU-I-1.2l shall apply to lands within city limits designated OS.

Open Space and Recreation, Permanent (OS&R) - This designation is for areas permanently dedicated to open space, trails, and active recreation uses such as sports fields. Hidden Lakes Park is an example of this combination of uses.

Note: The Protected Open Space and Parks Overlay (POPO) applies to the OS&R land use designation; therefore, Land Use Element Policy LU-1.2 and Implementation Measures LU-I-1.2a through LU-I-1.2l shall apply to lands within city limits designated OS&R.

Open Space 30% Slopes (OS-S) - Hilly areas that have slopes exceeding 30% are designated open space as they are inappropriate for development at their steepest points due to lack of access, soils instability, earthquake susceptibility, wildlife habitat, and wildfire risk. Areas with this designation are within the Alhambra Hills Specific Plan and may be partially developable in conformance with the specific plan. The balance is dedicated for open space.

Note: The Protected Open Space and Parks Overlay (POPO) applies to the OS-S land use designation; therefore, Land Use Element Policy LU-1.2 and Implementation Measures LU-I-1.2a through LU-I-1.2l shall apply to lands within city limits designated OS-S.

Open Space, Parks and Recreation (OS/P&R) - This designation is for areas that serve as open space, or recreation facilities, or areas adjacent to Alhambra Creek, within residential and commercial areas near or in the Downtown.

Note: The Protected Open Space and Parks Overlay (POPO) applies to the OS/P&R land use designation; therefore, Land Use Element Policy LU-1.2 and Implementation Measures LU-I-1.2a through LU-I-1.2l shall apply to lands within city limits designated OS/P&R.

Open Space Private (OS-P) - This category of open space applies primarily to the open space created pursuant to the Hidden Lakes Specific Plan. These are smaller open space areas created as part of residential subdivision and are in private ownership. This is passive open space for visual benefits.

Note: The Protected Open Space and Parks Overlay (POPO) applies to the OS-P land use designation; therefore, Land Use Element Policy LU-1.2 and Implementation Measures LU-I-1.2a through LU-I-1.2l shall apply to lands within city limits designated OS-P.

Open Space Conservation Use Land (CUL) - Open space areas with this designation are located in the southwestern portion of the City and are appropriate for agricultural uses, parks/recreation, and very low density residential. Large parcels with limited residential development are intended to conserve natural resources and respect environmental constraints including terrain, soils and habitat.

Note: The Protected Open Space and Parks Overlay (POPO) applies to the CUL land use designation; therefore, Land Use Element Policy LU-1.2 and Implementation Measures LU-I-1.2a through LU-I-1.2l shall apply to lands within city limits designated CUL.

Parks and Recreation (P&R) - This designation is applied to areas suitable for parks, playgrounds and other recreational uses and may include homeowners associations' community facilities and private recreation areas.

Non-Residential Floor Area Ratio: Up to 0.5

Applicable Zoning District: RF (Recreation Facility District)

Open Space Preservation (OSP) - This designation for public and private lands preserved as a scenic or environmental resource, either by public or common interest ownership, or through dedication of scenic open space or other easements or through conditions of development approval or previous designation and zoning action. While alteration of such properties for active recreation is typically not envisioned, naturalistic and agricultural plantings, and trails, may be possible if consistent with the intent of preserving the intended scenic resource and as may be permitted by any easements.

Note: The Protected Open Space and Parks Overlay (POPO) applies to the P&R land use designation; therefore, Land Use Element Policy LU-1.2 and Implementation Measures LU-I-1.2a through LU-I-1.2l shall apply to lands within city limits designated P&R.

Parks and Recreation, Public Permanent Open Space (PPOS) - This designation includes areas within the Alhambra Hills Specific Plan area as well as open space areas in the north-western portion of the city near Downtown. Most of the area near Downtown is composed of slopes that exceed a 30% grade and are either too steep for development or would require extensive study and careful design to ensure safe development. Ridge areas of less than 30% slope are either isolated from reasonable street access or are of major visual importance to the Downtown. Limited low density residential may be appropriate where access can be established that meets the policies in the Public Safety Element, and in areas that have geologic stability, in the Downtown adjacent areas, or are consistent with the Alhambra Hills Specific Plan for the Alhambra areas.

2.0 PROJECT DESCRIPTION

Note: The Protected Open Space and Parks Overlay (POPO) applies to the PPOS land use designation; therefore, Land Use Element Policy LU-1.2 and Implementation Measures LU-I-1.2a through LU-I-1.2l shall apply to lands within city limits designated PPOS.

Marina and Waterfront (MW) - The marina and waterfront area are comprised of the Marina and launch ramp, dry storage areas south of the Marina, and other uses historically established for supporting commercial and social organization facilities. The areas in this designation may also contain marina support services such as restaurants, and commercial boating and fishing activities.

Floor Area Ratio: Up to 1.0

Public and Quasi-Public Institutions (PI) - This designation refers to areas currently used for public benefit, including local and county government facilities, public and private schools, hospitals, and medical facilities.

Floor Area Ratio: Up to 1.0

Protected Open Space and Parks Overlay (POPO) Designation – The Martinez Open Space and Park Protection Initiative (Measure I) was passed by voters on June 5, 2018. According to the language in Measure I, the purpose of the initiative was to increase protections for open space, park and outdoor recreation land in the City by requiring approval by Martinez voters for any General Plan amendment to change allowable uses or land use designations for such land. The Initiative was also intended to help ensure that those lands and their valued uses are not changed to uses associated with more intensive development without approval by Martinez voters. The full text of Measure I is included as Land Use Element Appendix LU-A of the proposed General Plan Update. On September 18, 2019, the City Council adopted Resolution 115-19 approving a General Plan amendment to clarify Measure I. A copy of Resolution 115-19 is included as Land Use Element Appendix LU-B of the proposed General Plan Update.

Figure 2-2 shows the properties where the POPO designation applies. Land Use Element Policy LU-1.2 and Implementation Measures LU-I-1.2a through LU-I-1.2l apply to each property in the city with the POPO designation. The POPO designation applies to all properties in city limits with the following General Plan land use designations:

- Alhambra Valley Open Space (AV-OS)
- Environmentally Sensitive Land (ESL)
- Neighborhood Park (NP)
- Open Space (OS)
- Open Space and Recreation, Permanent (OS&R)
- Open Space 30% Slopes (OS-S)
- Open Space, Parks and Recreation (OS/P&R)
- Open Space Private (OS-P)
- Open Space Conservation Use Land (CUL)
- Parks and Recreation (P&R)
- Parks and Recreation, Public Permanent Open Space (PPOS)

Table 2-1 shows the total number of parcels and total acreages for each land use designation shown on the proposed Land Use Map.

TABLE 2-1: GENERAL PLAN LAND USE DESIGNATIONS

Land Use Designation	Area (Acres)		
	City Limits	Sphere of Influence	Total ¹
Downtown			
Downtown Core (DC)	19.86	0.00	19.86
Downtown Government (DG)	34.91	0.00	34.91
Downtown Shoreline (DS)	16.01	0.00	16.01
Downtown Transition (DT)	16.88	0.00	16.88
General Residential			
Residential Very Low (RVL)	204.14	98.15	302.29
Residential Low (RL)	1,367.46	384.34	1,751.80
Residential Medium (RM)	349.31	51.81	401.12
Residential High (RH)	57.23	0.00	57.23
Residential Very High (RVH)	76.82	10.20	87.02
Central Residential Single-Family			
Central Residential Low – A (CRL-A)	113.8	0.00	113.80
Central Residential Low – B (CRL-B)	84.86	0.00	84.86
Central Residential Mixed Single-Family and Multifamily			
Central Residential Low – C (CRL-C)	108.44	0.00	108.44
Central Residential Medium (CRM)	17.87	0.00	17.87
Central Residential High (CRH)	8.31	0.00	8.31
Alhambra Valley			
Alhambra Valley Estate Residential - Very Low (AV-ERVL)	122.48	82.42	204.91
Alhambra Valley Estate Residential – Low (AV-ERL)	0.00	160.96	160.96
Alhambra Valley Agricultural Lands (AV-AL)	135.59	309.84	445.43
Alhambra Valley Open Space (AV-OS)	57.12	91.49	148.61
Commercial and Mixed-Use			
General Commercial (GC)	44.86	35.23	80.09
Neighborhood Commercial (CN)	52.00	7.23	59.23
Commercial Light Industrial (CLI)	62.85	97.46	160.31
Regional Commercial (CR)	21.63	0.00	21.63
Business Park and Office Professional (BPO)	49.86	0.00	49.86
Business Park and Office Professional/Central Residential Low – B (BPO/CRL-B)	8.81	0.00	8.81

2.0 PROJECT DESCRIPTION

Land Use Designation	Area (Acres)		
	City Limits	Sphere of Influence	Total ¹
Business Park and Office Professional/Residential Very High (BPO/RVH)	12.43	0.00	12.43
Industrial and Manufacturing (IM)	593.15	1,248.91	1,842.05
Parks, Recreation, and Open Space Preservation			
Environmentally Sensitive Land (ESL)	273.04	0.01	273.04
Neighborhood Park (NP)	9.80	0.00	9.80
Open Space (OS)	407.27	529.69	936.96
Open Space/Parks & Recreation (OS/P&R)	73.25	0.00	73.25
Open Space & Recreation, Permanent (OS&R)	295.14	0.00	295.14
Open Space, 30% Slopes (OS-S)	69.22	0.00	69.22
Open Space, Private (OS-P)	14.67	0.00	14.67
Open Space Conservation Use Land (CUL)	1,010.25	0.00	1,010.25
Parks & Recreation (P&R)	139.42	0.00	139.42
Parks & Recreation, Public Permanent Open Space (PPOS)	780.76	10.13	790.88
Other Designations			
Marina and Waterfront (MW)	41.24	0.00	41.24
Public and Quasi-Public Institutional (PI)	241.70	457.75	699.45
Total²:	6,992.44	3,575.62	10,568.04

SOURCE: CITY OF MARTINEZ PLANNING DIVISION, JULY 2022.

NOTE: THE PROTECTED OPEN SPACE AND PARKS OVERLAY (POPO) APPLIES TO THE PARKS, RECREATION, AND OPEN SPACE PRESERVATION DESIGNATIONS.

1. THE SUM TOTALS MAY NOT BE EQUAL DUE TO ROUNDING.

2. TOTAL ACREAGES DO NOT INCLUDE RIGHT-OF-WAY.

EXISTING LAND USES

Table 2-2 summarizes the existing land uses in the City of Martinez based on Contra Costa County Assessor's data.

TABLE 2-2: ASSESSED LAND USES- CITY OF MARTINEZ

Land Use Description	City	SOI	Total
Commercial	159.9	76.9	236.8
Industrial	697.7	892.6	1,590.3
Institutional	312.4	20.4	332.7
Institutional - Government-Owned	2,127.7	742.7	2,870.4
Agricultural Land	660.4	376.1	1,036.4
Multi-Family Residential	198.4	25.0	223.5
Single-Family Residential	2,547.8	634.3	3,182.1
Miscellaneous	234.6	282.9	517.6
Vacant	273.5	383.9	657.3
Total	7,212.5	3,434.8	10,647.1

SOURCE: CONTRA COSTA COUNTY ASSESSOR, APRIL 2022; DE NOVO PLANNING GROUP, 2022.

GENERAL PLAN BUILDOUT ANALYSIS

This EIR evaluates the maximum projected development that could occur within the existing City Limits if land in the City developed at or near the higher end of densities and intensities allowed under the proposed General Plan Update.

Table 2-3 summarizes the maximum level of new development that may occur within the existing City Limits and SOI under General Plan Update buildout conditions. As shown in Table 2-3, buildout of the General Plan Update could yield up to 2,060 new residential units and nearly three million square feet of new non-residential development in the City limits and SOI.

TABLE 2-3: PROJECTED MAXIMUM NEW DEVELOPMENT WITHIN CITY LIMITS AND SOI AT GENERAL PLAN BUILDOUT

Type	Residential (# of Units)	Non-Residential (sq. ft.)
Single Family Units	865	-
Multifamily Units	1,195	-
Commercial Development	-	816,078
Office Development	-	56,217
Recreational Development	-	446,565
Industrial Development	-	977,453
Institutional Uses	-	7,016
Public/Quasi-Public Development	-	514,731
TOTAL (City and SOI)	2,060	2,818,060

SOURCE: DE NOVO PLANNING GROUP, OMNI-MEANS, AND CITY OF MARTINEZ, 2014; DE NOVO PLANNING GROUP, 2022; CITY OF MARTINEZ, 2022.

2.0 PROJECT DESCRIPTION

This new growth would increase the Study Area's population by approximately 5,150 residents.¹ The full development of the new commercial, office, and industrial uses shown in Table 2-3 would increase the employment opportunities by approximately 2,564 employees. The jobs:housing ratio associated with new development would be approximately 1.25, with full buildout of residential and employee-generating uses.

2.4 USES OF THE EIR AND REQUIRED AGENCY APPROVALS

This EIR may be used for the following direct and indirect approvals and permits associated with adoption and implementation of the proposed project.

CITY OF MARTINEZ

The City of Martinez is the lead agency for the proposed project. The General Plan Update will be presented to the Planning Commission for review and recommendation and to the City Council for comment, review, and consideration for adoption. The City Council has the sole discretionary authority to approve and adopt the General Plan Update. In order to approve the proposed project, the City Council would consider the following actions:

- Certification of the General Plan EIR;
- Adoption of required CEQA findings for the above action;
- Adoption of a Mitigation Monitoring and Reporting Program;
- Approval of the General Plan Update; and
- Approval of property rezoning consistent with the General Plan Land Use Map.

SUBSEQUENT USE OF THE EIR

This EIR provides a review of environmental effects associated with implementation of the proposed General Plan Update. When considering approval of subsequent activities under the proposed General Plan, the City of Martinez would utilize this EIR as the basis in determining potential environmental effects and the appropriate level of environmental review, if any, of a subsequent activity. Projects or activities successive to this EIR may include, but are not limited to, the following:

- Approval and funding of major projects and capital improvements;
- Future Specific Plan and Planned Unit Development projects;
- Preparation and adoption of the Marina and Waterfront Trust Land Use Plan (Implementation Measure LU-I-5.4a);
- Revision to the Martinez Municipal Code, including Title 22 - Zoning;

¹ Based on the 2021 California Department of Finance estimate of 2.50 persons per household.

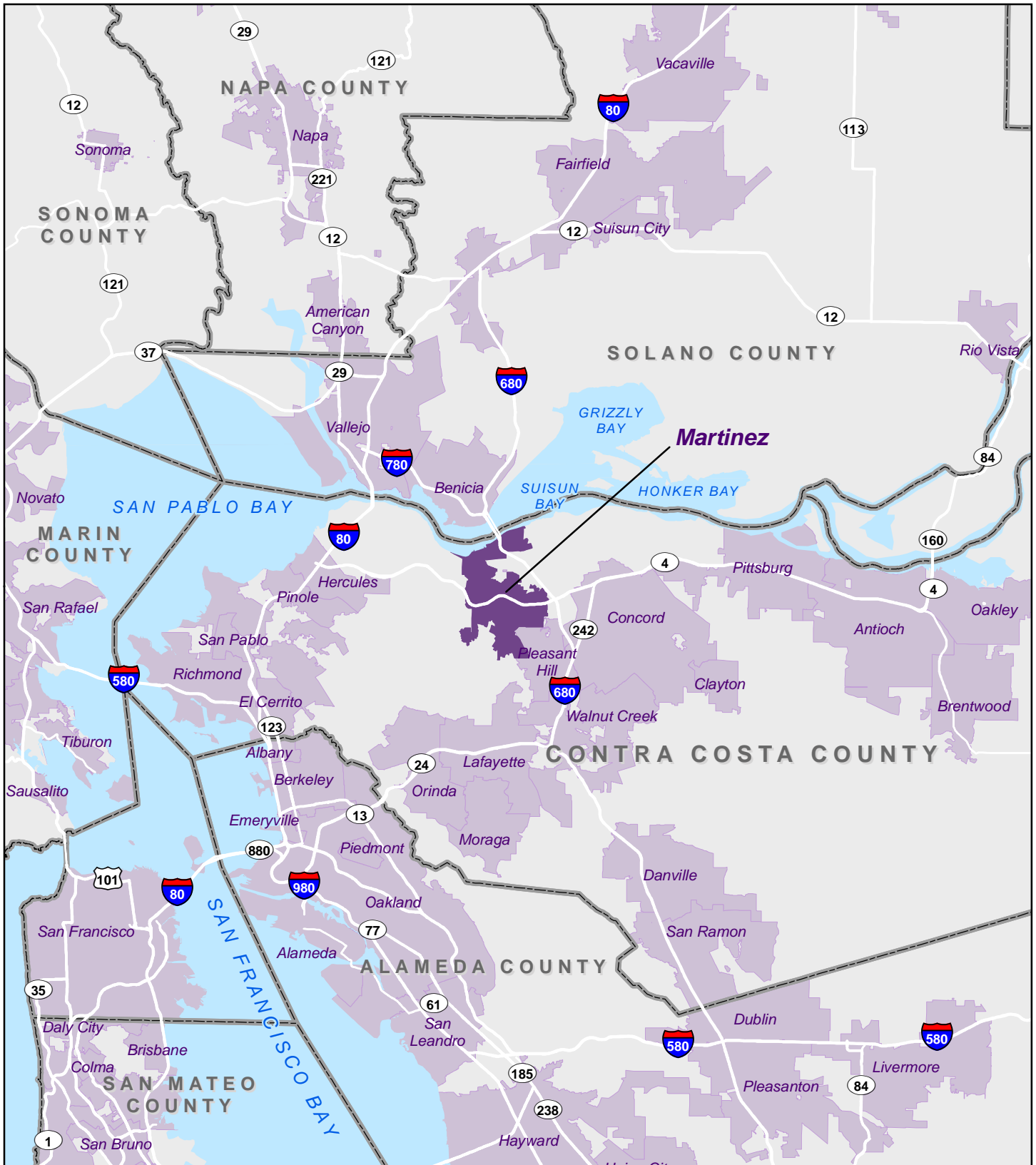
- Water, sewer, and other infrastructure master plans;
- Bicycle and Pedestrian Master Plan(s);
- Development Plan approvals, such as tentative subdivision maps, variances, conditional use permits, and other land use permits;
- Development Agreements;
- Permit issuances and other approvals necessary for public and private development projects; and
- Issuance of permits and other approvals necessary for implementation of the General Plan Update.

OTHER GOVERNMENTAL AGENCY APPROVALS

City approval of the proposed project would not require any actions or approvals by other public agencies. Subsequent projects and other actions to support implementation of the proposed project would require actions, including permits and approvals, by other public agencies that may include, but are not necessarily limited to:

- California Department of Fish and Wildlife (CDFW) approval of potential future streambed alteration agreements, pursuant to Fish and Game Code. Approval of any future potential take of State-listed wildlife and plant species covered under the California Endangered Species Act.
- California Department of Transportation (Caltrans) approval of projects and encroachment permits for projects affecting State highway facilities.
- Regional Water Quality Control Board (RWQCB) approval for National Pollution Discharge Elimination System compliance, including permits and Storm Water Pollution Prevention Plan approval and monitoring.
- Contra Costa Local Agency Formation Commission (LAFCo) approvals for annexation of any lands into the boundaries of the City of Martinez.
- U.S. Army Corps of Engineers (ACOE) approval of any future wetland fill activities, pursuant to the Clean Water Act.
- U.S. Fish and Wildlife Service (USFWS) approvals involving any future potential take of federally listed wildlife and plant species and their habitats, pursuant to the Federal Endangered Species Act.

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Legend

- City of Martinez
- Other Incorporated Areas
- County Boundary

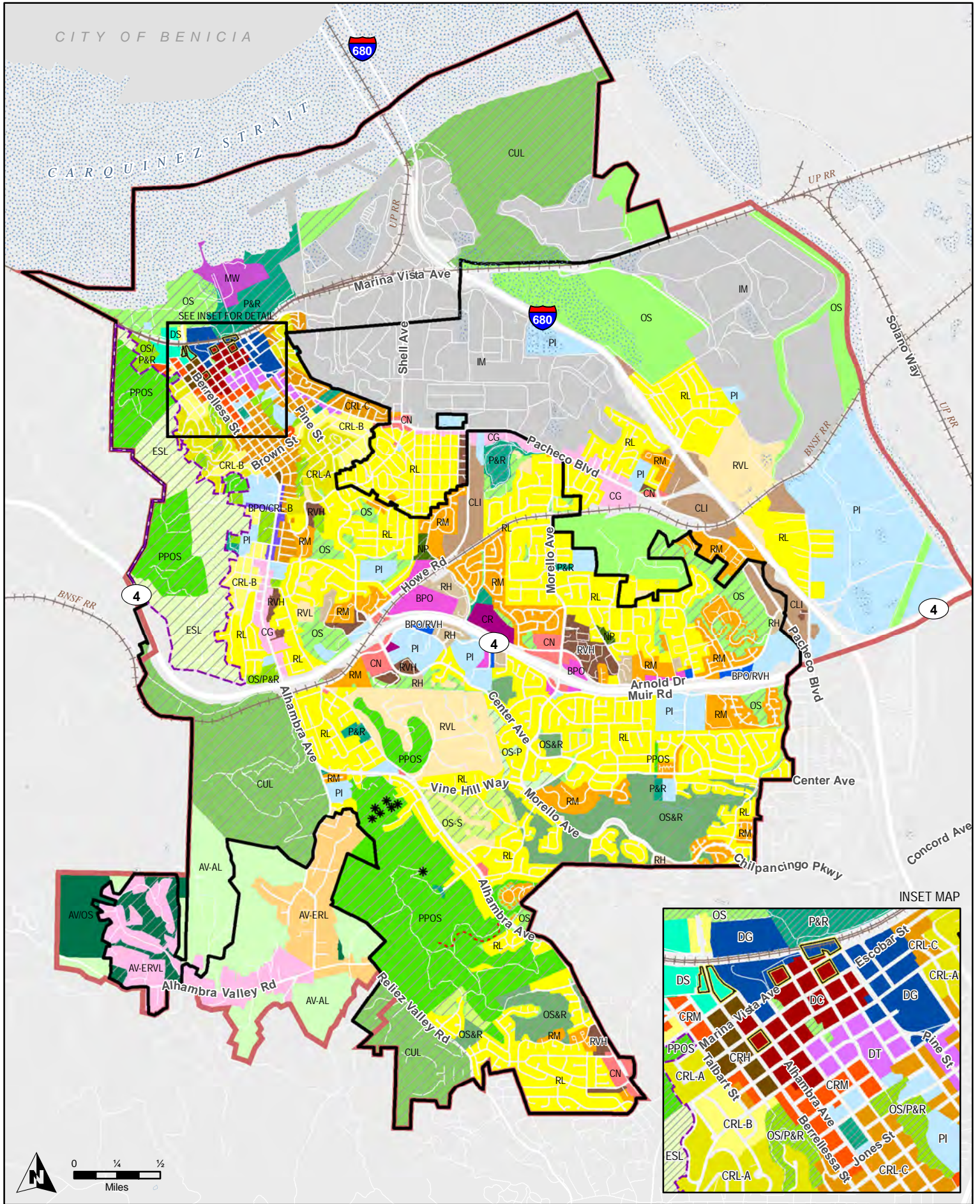


CITY OF MARTINEZ

Figure 2-1. Regional Location

Sources: California State Geoportal. Map date: January 24, 2022.

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Legend

- Martinez City Boundary
- Martinez Sphere of Influence
- Franklin Hills Subarea
- Downtown Residential Opportunity Area

- POPO Overlay*
- Alhambra Hills Access Path
- Alhambra Hills Remote Homesites

Land Use Designations

Downtown

- DC (Downtown Core)
- DG (Downtown Government)
- DS (Downtown Shoreline)
- DT (Downtown Transition)

Residential

- RVL (Residential Very Low)
- RL (Residential Low)
- RM (Residential Medium)
- RH (Residential High)
- RVH (Residential Very High)

Central Residential Single Family

- CRL-A (Central Residential Low - A)
- CRL-B (Central Residential Low - B)

Central Residential Mixed Single Family and Mult Family

- CRL-C (Central Residential Low - C)
- CRM (Central Residential Medium)
- CRH (Central Residential High)

Alhambra Valley

- AV-ERVL (Alhambra Valley Estate Residential - Very Low)
- AV-ERL (Alhambra Valley Estate Residential - Low)
- AV-AL (Alhambra Valley Agricultural)
- AV/OS (Alhambra Valley Open Space)

Commercial, Mixed Use, and Industrial

- GC (General Commercial)
- CN (Neighborhood Commercial)

CL (Commercial Light Industrial)

- CR (Regional Commercial)
- BPO (Business Park and Office)
- BPO/CRL-B (Business Park and Office/Central Residential Low - B)
- BPO/RVH (Business Park and Office/Residential Very High)
- IM (Industrial and Manufacturing)

Parks, Recreation, and Open Space Preservation

- ESL (Environmentally Sensitive Land)
- NP (Neighborhood Park)
- OS (Open Space)
- OS&R (Open Space & Recreation, Permanent)

OS-S (Open Space, Slopes Over 30%)

- OS/P&R (Open Space, Parks & Recreation)
- OS-P (Open Space, Private)
- CUL (Open Space/Conservation Use Land)
- P&R (Parks & Recreation)
- PPOS (Parks & Recreation, Public Permanent Open Space)

Waterfront Recreation and Marina

- MW (Marina and Waterfront)

Public and Quasi-Public Institutions

- PI (Public and Quasi Public)

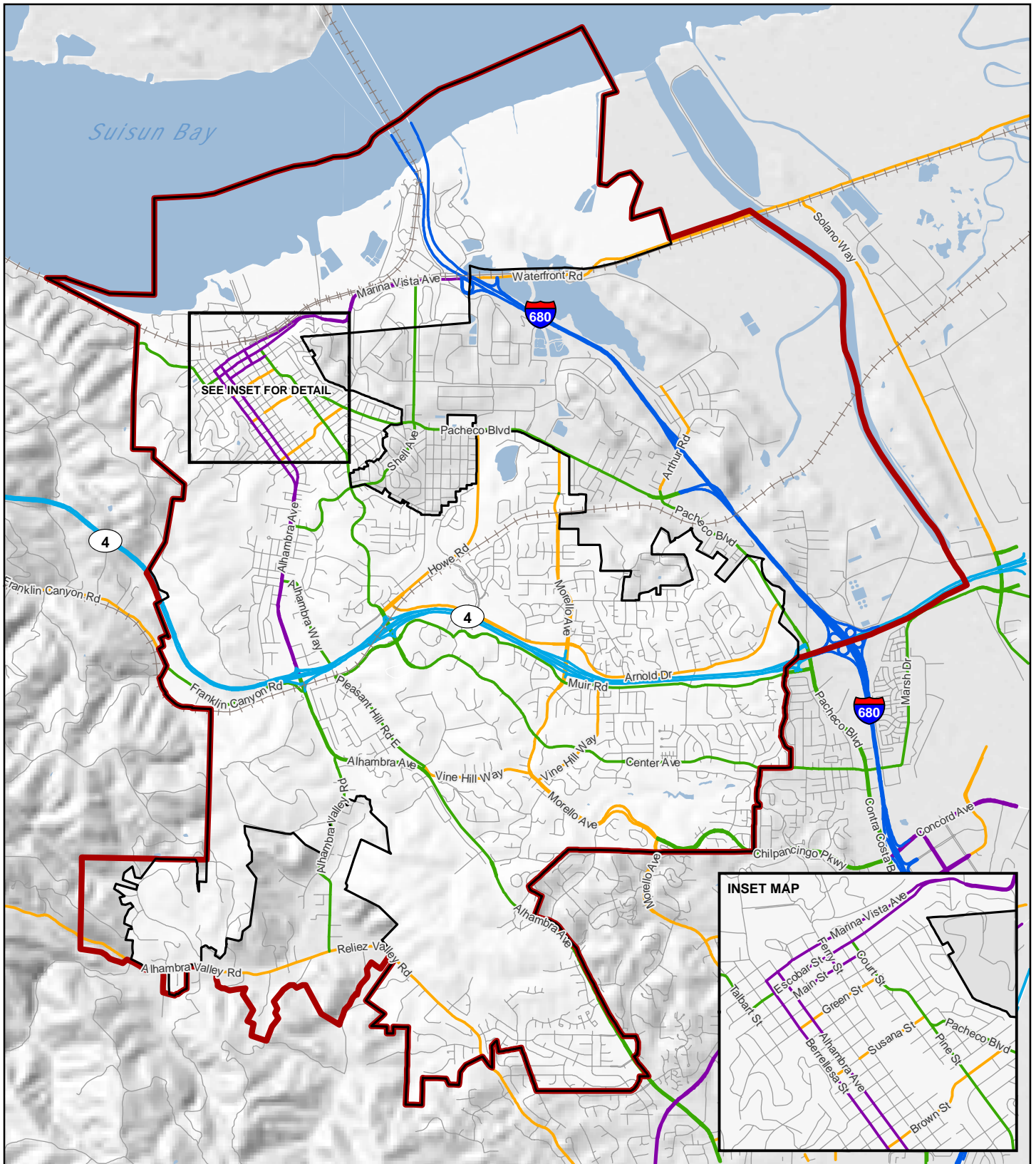
* The Protected Open Space and Parks Overlay (POPO) Designation applies specific limitations on changes to the underlying land uses pursuant to Measure I.

Data Sources: City of Martinez; USGS NHD; USGS National Map Roads; California State Geoportal. Map date: July 25, 2022.

CITY OF MARTINEZ

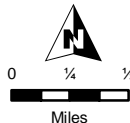
Figure 2-2.
2035 General Plan Land Use Map

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LEGEND

- Martinez City Limits
- Martinez Sphere of Influence
- Interstate
- Other Freeway or Expressway
- Principal Arterial
- Minor Arterial
- Major Collector
- Local Road



CITY OF MARTINEZ

Figure 2-3. Circulation Plan

Sources: Contra Costa County GIS; City of Martinez. Map date: July 15, 2022.

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3.1 INTRODUCTION

This section analyzes potential impacts resulting from reasonably foreseeable growth, including the Martinez General Plan Update (General Plan Update).

CEQA Guidelines Section 15355 defines cumulative impacts as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts...” The following elements are necessary in an adequate discussion of cumulative impacts, as noted in Sections 15130(b) through 15130(e) of the CEQA Guidelines:

(b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact. The following elements are necessary to an adequate discussion of significant cumulative impacts:

(1) Either:

(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or,

(B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency.

(2) When utilizing a list, as suggested in paragraph (1) of subdivision (b), factors to consider when determining whether to include a related project should include the nature of each environmental resource being examined, the location of the project and its type. Location may be important, for example, when water quality impacts are at issue since projects outside the watershed would probably not contribute to a cumulative effect. Project type may be important, for example, when the impact is specialized, such as a particular air pollutant or mode of traffic.

(3) Lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used.

3.0 BASIS OF CUMULATIVE ANALYSIS

(4) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and

(5) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

(c) With some projects, the only feasible mitigation for cumulative impacts may involve the adoption of ordinances or regulations rather than the imposition of conditions on a project-by-project basis.

(d) Previously approved land use documents such as general plans, specific plans, and local coastal plans may be used in cumulative impact analysis. A pertinent discussion of cumulative impacts contained in one or more previously certified EIRs may be incorporated by reference pursuant to the provisions for tiering and program EIRs. No further cumulative impacts analysis is required when a project is consistent with a general, specific, master or comparable programmatic plan where the lead agency determines that the regional or areawide cumulative impacts of the proposed project have already been adequately addressed, as defined in section 15152(f), in a certified EIR for that plan.

(e) If a cumulative impact was adequately addressed in a prior EIR for a community plan, zoning action, or general plan, and the project is consistent with that plan or action, then an EIR for such a project should not further analyze that cumulative impact, as provided in Section 15183(j).

3.2 CUMULATIVE ANALYSIS IN THIS EIR

Cumulative impacts may be discussed in terms of impacts resulting from the General Plan Update, in combination with impacts anticipated for future development (including approved and planned development within the Study Area and surrounding affected area), and impacts associated with growth within the greater region. The geographic area for each impact varies, depending on the nature of the impact, whether it is regional, such as air quality or greenhouse gas emissions, or local, such as noise or aesthetics.

Quantification can pose as a challenge for cumulative impacts, as it requires speculative estimates of impacts including, but not limited to the following: the geographic diversity of impacts (impacts of future development may affect different areas); variations in time of impacts; and data for buildout projections may change following subsequent approvals. However, every attempt has been made herein to make sound qualitative judgments of the combined effects of, and relationship between, land uses and potential environmental impacts.

This EIR assesses the overall environmental effects of the General Plan Update at a program level of detail. This EIR evaluates the overall (cumulative) effects of development in accordance with the community development types, land use assumptions, and all goals and policies contained in the General Plan Update. The environmental analyses in Sections 4.1 through 4.16 of this EIR consider Project impacts in combination with regional impacts, where applicable, that could be expected as other cities within the Bay Area region approach 2035, and out towards 2050.

In compliance with CEQA Guidelines Section 15130(1)(b), this section of the EIR describes the environmental effects of the General Plan Update in combination with the effects of regional growth, as forecasted in the Association of Bay Area Governments (ABAG) Regional Transportation Plan/Sustainable Communities Strategy (Plan Bay Area 2050), adopted by ABAG's Regional Council on October 21, 2021. It is important to note that the ABAG projections, which are compiled using a number of sources including adopted plans, historical trends, and interviews with local jurisdictions, tend to be more accurate on a regional level than on a local or city level. It is likely that through a combination of market changes, catalytic projects, updated land use direction in the General Plan Update, and other factors, Martinez could capture either more or less of expected regional growth than forecasted by ABAG.

Table 3-1 summarizes population, housing units, and employment growth forecasts for the City, the region and the County. For its growth forecast, ABAG divides the nine-county Bay area into 34 subcounty areas, called "superdistricts." Superdistricts are combinations of cities, towns and unincorporated areas that allow the public to see more localized growth patterns in Plan Bay Area 2050. The Study Area is located in the North Contra Costa County superdistrict, which includes Clayton, Pleasant Hill, Concord, Lafayette (partial), Pittsburg (partial), and Martinez. Plan Bay Area 2050 projects that most of the growth in the region will occur in the cities of San Francisco and San Jose.

The General Plan Update buildout through 2035 would allow for the development of an additional 2,060 units and 2,818,060 square feet of non-residential development, increasing the number of households in the City by 13 percent and the number of jobs by 11 percent. ABAG's growth projections are based on a baseline year of 2015 and anticipates growth through 2050. Households in North Costa Contra County are anticipated to grow by 58 percent and jobs by 52 percent. However, since the Martinez growth under the General Plan Update is anticipated to occur over the next 14 years, compared to ABAG's growth forecasts that are anticipated to occur over 35 years (from 2015 through 2050), it is helpful to identify anticipated annual growth. As shown in Table 3-1, Martinez's annual growth for both households (0.9 percent) and jobs (0.8 percent) are slightly lower, but similar to the larger region. Section 4.12, Population and Housing, further elaborates on projected growth assumptions within the Study Area as well as within the ABAG region.

As indicated in Section 2.0, Project Description, the City is forecast to have approximately 17,325 housing units by 2035 buildout, which would result in an approximate population of 41,977 persons. Therefore, the General Plan Update would facilitate the addition of 2,060 housing units through 2035 and would result in a population growth of approximately 5,150 persons in the City.

3.0 BASIS OF CUMULATIVE ANALYSIS

TABLE 3-1: GROWTH PROJECTIONS

Description	Households				Jobs			
	Existing	Projection	% Growth	Annual % Change ³	Existing	Projection	% Growth	Annual % Change ³
Martinez ¹	15,265	17,325	13%	0.9%	22,344	24,908	11%	0.8%
Contra Costa County ²	383,000	551,000	44%	1.3%	404,000	534,000	32%	0.9%
North Contra Costa County ²	85,000	134,000	58%	1.6%	121,000	184,000	52%	1.5%

SOURCE: CALIFORNIA DEPARTMENT OF FINANCE, 2021; US CENSUS, ONTHEMAP, 2019; ABAG; PLAN BAY 2050 FINAL BLUEPRINT, GROWTH PATTERN, 2021.

NOTES:

1. EXISTING CONDITIONS FOR MARTINEZ ARE BASED ON THE 2021 CALIFORNIA DEPARTMENT OF FINANCE E-5 ESTIMATES AND U.S. CENSUS. PROJECTIONS FOR MARTINEZ ARE BASED ON THE PROPOSED GENERAL PLAN 2035 BUILDOUT.
2. EXISTING CONDITIONS AND PROJECTIONS FOR CONTRA COSTA COUNTY ARE BASED ON THE 2015 BASELINE AND 2050 FORECAST FROM THE ABAG PLAN BAY 2050.
3. ANNUAL GROWTH IS BASED ON 14 YEAR PLANNING PERIOD FOR MARTINEZ (2021-2035) AND 35 YEAR PLANNING PERIOD FOR CONTRA COSTA COUNTY (2015-2050).

Sections 4.1 through 4.16 of the Environmental Impact Report (EIR) contain discussions of the existing conditions, project impacts (including direct/indirect, short-term/long-term, and cumulative), General Plan goals, policies and implementation measures that reduce potential impacts, mitigation measures (if appropriate), and significant and unavoidable impacts.

The EIR sections listed below examine the environmental issues, as identified in Appendix G, *Environmental Checklist Form*, of the *California Environmental Quality Act Guidelines* (CEQA Guidelines), and as identified in Appendix A, Notice of Preparation.

- 4.1 Aesthetics
- 4.2 Agricultural Resources
- 4.3 Air Quality
- 4.4 Biological Resources
- 4.5 Cultural and Tribal Cultural Resources
- 4.6 Geology, Soils & Mineral Resources
- 4.7 Greenhouse Gas Emissions, Climate Change & Energy
- 4.8 Hazards and Hazardous Materials
- 4.9 Hydrology and Water Quality
- 4.10 Land Use and Planning
- 4.11 Noise
- 4.12 Population and Housing
- 4.13 Public Services and Recreation
- 4.14 Transportation and Circulation
- 4.15 Utilities and Service Systems
- 4.16 Wildfire

Each environmental issue/section is organized into subsections, as follows:

- “Environmental Setting” describes the physical environmental conditions in the project vicinity that may influence or affect the issue under investigation, from both a local and regional perspective. For purposes of the General Plan Update and this EIR, baseline conditions are 2022 when existing conditions were identified to support and inform the General Plan Update. The environmental setting constitutes the baseline physical conditions by which the determination of significance is made.
- “Regulatory Setting” identifies and summarizes the laws, ordinances, regulations, and standards that apply to the project, at the federal, State, and local levels, as they exist at the time the Notice of Preparation (NOP) is published.
- “Impacts and Mitigation Measures” includes the “Thresholds of Significance”, which provides the thresholds that are the basis of conclusions of significance. Primary sources used in identifying the thresholds and criteria include Appendix G of the CEQA Guidelines (California Code of Regulations, Sections 15000 – 15387); local, State, federal, or other standards applicable to an impact category; and officially adopted significance thresholds. “...An ironclad definition of significant effect is not possible because the significance of any activity may vary with the setting” (CEQA Guidelines Section 15064[b]). Principally, “...a

substantial or potentially substantial adverse change in any of the physical conditions within an area affected by the project including land, air, water, minerals, flora, fauna, ambient noise and objects of historic and aesthetic significance” constitutes a significant impact (CEQA Guidelines Section 15382).

The “Impacts and Mitigation Measures” evaluates the project’s environmental impacts in consideration of all phases, including planning, development, and operation. This subsection also discusses the potential changes to the existing physical environmental conditions, which may occur if the proposed project is implemented. Evidence, based on factual and scientific data, is presented to show the cause-and-effect relationship between the proposed project and the potential changes in the environment. Potential direct and reasonably foreseeable indirect effects are considered. The exact magnitude, duration, extent, frequency, range, or other parameters are ascertained, to the extent possible, to determine their significance.

The “General Plan Update Goals, Policies, and Implementation Measures that Minimize Potential Impacts” (project features) that would contribute towards avoiding, reducing, or eliminating a significant adverse impact.

Mitigation Measures, if applicable, are project-specific measures that would be required of the project to avoid a significant adverse impact; to minimize a significant adverse impact; to rectify a significant adverse impact by restoration; to reduce or eliminate a significant adverse impact over time by preservation and maintenance operations; or to compensate for the impact by replacing or providing substitute resources or environment.

A discussion of the level of significance after mitigation identifies which impacts would remain after the application of mitigation measures and whether the remaining impacts are or are not considered significant. When impacts, despite the inclusion of mitigation measures cannot be mitigated to a level considered less than significant, they are identified as “significant unavoidable impacts.”

- “Cumulative Impacts” describes potential environmental changes to the existing physical conditions that may occur as a result of the proposed project together with all other reasonably foreseeable, planned and approved future projects producing related or cumulative impacts, as set forth in Section 4.0, Basis of Cumulative Analysis. A cumulative impact analysis is provided for those thresholds that result in a less than significant, potentially significant, or significant unavoidable impact. A cumulative impact analysis is not provided for Effects Found Not to be Significant, which result in no project-related impacts.
- “Significant Unavoidable Impacts” describes impacts that would be significant and cannot be feasibly mitigated to less than significant, so would therefore be unavoidable. To approve a project with significant unavoidable impacts, the lead agency must adopt a Statement of Overriding Considerations. In adopting such a statement, the lead agency is required to balance the benefits of a project against its unavoidable environmental impacts in determining whether to approve the project. If the benefits of a project are found to outweigh the significant unavoidable environmental effects, the adverse effects may be considered “acceptable” (CEQA Guidelines Section 15093[a]).
- “References” cites the sources used during the course of the issue analysis.

This section was prepared based on general observations, and existing reports and literature for Martinez and the surrounding areas in Contra Costa County. Additional sources of information included the California Department of Transportation's (Caltrans) Designated Scenic Route map for Contra Costa County.

This section provides a background discussion of the scenic highways and corridors, and natural scenic resources such as rivers, wildlife areas, and prominent visual features found in the Martinez Study Area. This section is organized with an existing setting, regulatory setting, and impact analysis. No comments were received during the public review period or scoping meeting for the 2022 Notice of Preparation regarding this topic.

CONCEPTS AND TERMINOLOGY

The City of Martinez and the surrounding areas possess numerous visual resources, many of which are found in the natural areas within the unincorporated areas of Contra Costa County. These resources enhance the quality of life for Martinez residents, and provide for outdoor recreational, agricultural, and tourist-generating uses.

The aesthetic value of an area is a measure of its visual character and quality, combined with the viewer response to the area (Federal Highway Administration 1988). Scenic quality can best be described as the overall impression that an individual viewer retains after driving through, walking through, or flying over an area (U.S. Bureau of Land Management 1980). Viewer response is a combination of viewer exposure and viewer sensitivity. Viewer exposure is a function of the number of viewers, number of views seen, distance of the viewers, and viewing duration. Viewer sensitivity relates to the extent of the public's concern for a particular viewshed. These terms and criteria are described in detail below.

Visual Character. Natural and artificial landscape features contribute to the visual character of an area or view. Visual character is influenced by geologic, hydrologic, botanical, wildlife, recreational, and urban features. Urban features include those associated with landscape settlements and development, including roads, utilities, structures, earthworks, and the results of other human activities. The perception of visual character can vary significantly seasonally, even hourly, as weather, light, shadow, and elements that compose the viewshed change. The basic components used to describe visual character for most visual assessments are the elements of form, line, color, and texture of the landscape features (U.S. Forest Service 1995; Federal Highway Administration 1988).

Visual Quality. Visual quality is evaluated using the well-established approach to visual analysis adopted by Federal Highway Administration, employing the concepts of vividness, intactness, and unity (Federal Highway Administration 1988), which are described below.

- Vividness is the visual power or memorability of landscape components as they combine in striking and distinctive visual patterns.

- Intactness is the visual integrity of the natural and human-built landscape and its freedom from encroaching elements; this factor can be present in well-kept urban and rural landscapes, and in natural settings.
- Unity is the visual coherence and compositional harmony of the landscape considered as a whole; it frequently attests to the careful design of individual components in the landscape.

Visual quality is evaluated based on the relative degree of vividness, intactness, and unity, as modified by visual sensitivity. High-quality views are highly vivid, relatively intact, and exhibit a high degree of visual unity. Low-quality views lack vividness, are not visually intact, and possess a low degree of visual unity.

Viewer Exposure and Sensitivity. The measure of the quality of a view must be tempered by the overall sensitivity of the viewer. Viewer sensitivity or concern is based on the visibility of resources in the landscape, proximity of viewers to the visual resource, elevation of viewers relative to the visual resource, frequency and duration of views, number of viewers, and type and expectations of individuals and viewer groups.

The importance of a view is related, in part, to the position of the viewer to the resource; therefore, visibility and visual dominance of landscape elements depend on their placement within the viewshed. A viewshed is defined as all of the surface area visible from a particular location (e.g., an overlook) or sequence of locations (e.g., a roadway or trail) (Federal Highway Administration 1988). To identify the importance of views of a resource, a viewshed must be broken into distance zones of foreground, middle ground, and background. Generally, the closer a resource is to the viewer, the more dominant it is and the greater its importance to the viewer. Although distance zones in a viewshed may vary between different geographic regions, or types of terrain, the standard foreground zone is 0.25–0.5 mile from the viewer, the middle ground zone is from the foreground zone to 3–5 miles from the viewer, and the background zone is from the middle ground to infinity (Jones et al., 1975).

Visual sensitivity depends on the number and type of viewers and the frequency and duration of views. Visual sensitivity is also modified by viewer activity, awareness, and visual expectations in relation to the number of viewers and viewing duration. For example, visual sensitivity is generally higher for views seen by people who are driving for pleasure, people engaging in recreational activities such as hiking, biking, or camping, and homeowners. Sensitivity tends to be lower for views seen by people driving to and from work or as part of their work (U.S. Forest Service 1995; Federal Highway Administration 1988; U.S. Soil Conservation Service 1978). Commuters and non-recreational travelers have generally fleeting views and tend to focus on commute traffic, not on surrounding scenery; therefore, they are generally considered to have low visual sensitivity. Viewers using recreation trails and areas, scenic highways, and scenic overlooks are usually assessed as having high visual sensitivity.

Judgments of visual quality and viewer response must be made based in a regional frame of reference (U.S. Soil Conservation Service 1978). The same landform or visual resource appearing in different geographic areas could have a different degree of visual quality and sensitivity in each

setting. For example, a small hill may be a significant visual element on a flat landscape but have very little significance in mountainous terrain.

Scenic Highway Corridor. The area outside of a highway right-of-way that is generally visible to persons traveling on the highway.

Scenic Highway/Scenic Route. A highway, road, drive, or street that, in addition to its transportation function, provides opportunities for the enjoyment of natural and human-made scenic resources and access or direct views to areas or scenes of exceptional beauty (including those of historic or cultural interest). The aesthetic values of scenic routes often are protected and enhanced by regulations governing the development of property or the placement of outdoor advertising.

Light and Glare. Lighting effects are associated with the use of artificial light during the evening and nighttime hours. There are two primary sources of light: light emanating from building interiors passing through windows and light from exterior sources (i.e., street lighting, building illumination, security lighting, parking lot lighting, landscape lighting, and signage). Light introduction can be a nuisance. Uses such as residences and hotels are considered light sensitive, since occupants have expectations of privacy during evening hours and may be subject to disturbance by bright light sources. Light spill is typically defined as the presence of unwanted light on properties adjacent to the property being illuminated. With respect to lighting, the degree of illumination may vary widely depending on the amount of light generated, height of the light source, presence of barriers or obstructions, type of light source, and weather conditions.

Glare is primarily a daytime occurrence caused by the reflection of sunlight or artificial light on highly polished surfaces such as window glass or reflective materials and, to a lesser degree, from broad expanses of light-colored surfaces. Perceived glare is the unwanted and potentially objectionable sensation as observed by a person as they look directly into the light source of a luminaire. Daytime glare generation is common in urban areas and is typically associated with buildings with exterior facades largely or entirely comprised of highly reflective glass. Glare can also be produced during evening and nighttime hours by the reflection of artificial light sources such as automobile headlights. Glare generation is typically related to either moving vehicles or sun angles, although glare resulting from reflected sunlight can occur regularly at certain times of the year. Glare-sensitive uses include residences, hotels, transportation corridors, and aircraft landing corridors.

4.1.1 ENVIRONMENTAL SETTING

NATURAL ENVIRONMENT

The City of Martinez is located in the north-central part of Contra Costa County. The City is bordered by Carquinez Strait/Solano County to the north, the Cities of Pleasant Hill and Concord to the southeast, and unincorporated Contra Costa County to the west and northeast. The City is located mostly west of the Interstate 680 (I-680), which runs north-south, and is bisected by State Route 4 (SR 4), which runs east-west.

Martinez is largely defined by its open spaces to the north, west, and south of the City. These open spaces provide city and community identity by providing visual relief from continuous urbanization.

The seasonally changing hills along the western border of the City, wetlands adjacent to the Carquinez Strait, Alhambra Creek, and many other visual features and resources provide attractive visual characteristics to the area.

The Carquinez Strait Shoreline

Located in the northwest part of the City, the Martinez Regional Shoreline offers shoreline views of the Carquinez Strait, and the Benicia Martinez Bridge. The Carquinez Strait Shoreline comprises 1,415 acres of bluffs and shoreline along Carquinez Scenic Drive between the town of Crockett and the hillsides overlooking Martinez. This parkland provides a gateway to the Delta region along the northern edge of Contra Costa County. The coastal hills rise steeply up to 750 feet above Carquinez Strait. From the highest elevations the view includes the marshland of Benicia State Recreation Area to the north across Carquinez Strait. From atop Franklin Ridge along the Franklin Ridge Loop Trail and the California Riding and Hiking Trail, the horizon is pierced by the peaks of Mt. Tamalpais to the west and Mt. Diablo to the east. Looking south from this high point are the ridges of Briones and Las Trampas regional parks.

Alhambra Valley

Alhambra Valley is a semi-rural area of approximately 1,000 acres located in the southwesterly portion of Martinez. Portions of the Valley were annexed into the City in 2012. Alhambra Valley is characterized by its natural creeks, visually prominent hillsides, scenic vistas, and areas of significant topographic variation of the landscape seen throughout the Alhambra Valley. Views of ridgelines and hills form the backdrop for most of the Alhambra Valley. These views help reinforce the rural feeling of the area and provide expansive viewsheds.

Alhambra Creek

Alhambra Creek originates at Briones Regional Park south of Martinez and meanders through the City. At the mouth, Alhambra Creek meets the Carquinez Strait, where salt marshes in this brackish zone provide additional aesthetic viewing opportunities. Riparian vegetation generally represents a valuable scenic resource within any area. However, much of the naturally occurring riparian vegetation along the creeks in the Martinez Study Area has been reduced or eliminated due to flood control measures. Through revitalization efforts, residents enjoy views of the creek and riparian communities near the Amtrak Station, and downtown between Main and Green Streets.

BUILT ENVIRONMENT

Downtown Martinez

The Downtown Core is the cultural and historic heart of Martinez. Downtown Martinez has a unique geographic setting. To the north, between the Downtown and the Carquinez Strait, lies 344 acres of passive and active open space in the Martinez Regional Shoreline and the City's Waterfront Park. The quality of the Downtown's heritage helps to maintain the character and uniqueness of the City. The positive image of the Downtown is strongly influenced by this character. The Downtown includes a mix of retail, office, residential, governmental, entertainment, and visitor serving uses. The Downtown Core area includes mixed use activities that include commercial, office and second

story residential along Main and Ferry Streets, and north of Ward Street. The area also includes the County Civic Center at Court Street, other existing government institutions and supporting uses, and the Intermodal Transit Station.

Agricultural Lands

Agricultural land is predominately intended to be used for production of food and fiber. Though Martinez does not have any Farmland of Statewide Importance, there is a small amount of Prime and Unique Farmland within the Study Area; the Unique Farmland is used for viticulture. Specifically, the Viano Vineyards located east of Morello Avenue and south of the railroad tracks near Marie Avenue. In addition, the hills in the western part of Martinez provide a significant amount of space for cattle grazing.

Agricultural lands within Martinez define the visual character of many periphery areas of the City. The open space from agriculture, creates a visual contrast between rural areas and the suburban land uses that have emerged during the past decades. While the visual effects of agriculture as a resource is up to individual preference, many people find enhanced agricultural landscapes to be a visually pleasing environment.

SCENIC HIGHWAYS AND CORRIDORS

According to the California Scenic Highway Mapping System administered by Caltrans, there are no officially designated State Scenic Highways in the vicinity of the City of Martinez. There are two officially designated scenic highway corridors in Contra Costa County: Interstate 680, from the Alameda County line to the junction with State Route 24; and State Route 24 from the east portal of the Caldecott tunnel to Interstate 680 near Walnut Creek. Neither of these officially designated scenic highway corridors provide views of Martinez or the immediate surrounding areas.

Additionally, there is one Eligible State Scenic Highway Corridor within Contra Costa County that has not yet been officially designated. State Route 4, west of the junction with Byron Highway to the junction with State Route 160 in Antioch is designated as an Eligible State Scenic Highway Corridor. The section of highway lies approximately 12 miles east of the Study Area and does not provide views of Martinez.

Local Scenic Roadways

The existing Martinez General Plan identifies Carquinez Scenic Drive as scenic a roadway within the Study Area. This Drive offers views of the Carquinez Strait, expansive hillsides and vegetation, and the Benicia-Martinez Bridge. The Carquinez Scenic Drive is located on the northern border of the Downtown area. The existing General Plan also identifies and discusses several other roadway segments that contribute to Martinez's scenic resources: California State Highway 4; Alhambra Avenue from its junction with Taylor Boulevard to its intersection with California State Highway Route 4; Alhambra Valley Road from its junction with Alhambra Avenue westward to its junction with Interstate 80; Reliez Valley Road from its junction with Alhambra Valley Road; Vaca Creek Road.

LIGHT AND GLARE

During the day, sunlight reflecting from structures is a primary source of glare, while nighttime light and glare can be divided into both stationary and mobile sources. Stationary sources of nighttime light include structure illumination, interior lighting, decorative landscape lighting, and streetlights. The principal mobile source of nighttime light and glare is vehicle headlamp illumination. This ambient light environment can be accentuated during periods of low clouds or fog.

The varieties of urban land uses in the Study Area are the main source of daytime and nighttime light and glare. They are typified by single and multi-family residences, commercial structures, industrial areas, and streetlights. These areas and their associated human activities (inclusive of vehicular traffic) characterize the existing light and glare environment present during daytime and nighttime hours in the urbanized portions of the Study Area. Areas outside of the City limits near the fringes of the Study Area are characterized by agricultural uses, open spaces, and scattered low intensity residential development, and generally have lower levels of ambient nighttime lighting and daytime glare.

Sources of glare in urbanized portions of the Study Area come from light reflecting off surfaces, including glass, and certain siding and paving materials, as well as roofing materials with a high reflective index. The urbanized areas of Martinez contain sidewalks and paved parking areas which reflect street and vehicle lights. The existing light environment found in the Study Area is considered typical of suburban areas.

Sky glow is the effect created by light reflecting into the night sky (also referred to as Light Pollution). Sky glow is of particular concern in areas surrounding observatories, where darker night sky conditions are necessary, but is also of concern in more rural or natural areas where a darker night sky is either the norm, or is important to wildlife. Due to the urban nature of the City limits, a number of existing light sources affect areas and illuminate the night sky. Isolating impacts of particular sources of light or glare is therefore not appropriate or feasible for the Study Area as a whole.

4.1.2 REGULATORY SETTING

FEDERAL

There are no federal aesthetics regulations applicable to the Study Area.

STATE

California Department of Transportation – California Scenic Highway Program

California's Scenic Highway Program was created by the Legislature in 1963 to preserve and protect scenic highway corridors from change, which would diminish the aesthetic value of lands adjacent to highways. The State laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq.

The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. These highways are identified in Section 263 of the Streets and Highways Code. If a route is not included on a list of highways eligible for scenic highway designation in the Streets and Highways Code Section 263 et seq., it must be added before it can be considered for official designation. A highway may be designated scenic depending on the extent of the natural landscape that can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view.

When a local jurisdiction nominates an eligible scenic highway for official designation, it must identify and define the scenic corridor of the highway. A scenic corridor is the land generally adjacent to and visible from the highway. A scenic highway designation protects the scenic values of an area. Jurisdictional boundaries of the nominating agency are also considered, and the agency must also adopt ordinances to preserve the scenic quality of the corridor or document such regulations that already exist in various portions of local codes. These ordinances make up the scenic corridor protection program.

To receive official designation, the local jurisdiction must follow the same process required for official designation of State Scenic Highways. The minimum requirements for scenic corridor protection include:

- Regulation of land use and density of development;
- Detailed land and site planning;
- Control of outdoor advertising (including a ban on billboards);
- Careful attention to and control of earthmoving and landscaping; and
- Careful attention to design and appearance of structures and equipment.

California Trails Act

This law requires every city and county to consider trail-oriented recreational uses, and consider such demands in developing specific open space programs in their General Plan. Every city, county, and district must also consider the feasibility of integrating trail routes with appropriate segments of the State trail system.

California Building Standards Code

Title 24 of the California Building Standards Code serves as the basis for the design and construction of buildings in California. In addition to safety, sustainability, new technology and reliability, the California Building Standards Code addresses light pollution and glare hazards through the establishment of maximum allowable backlight, up light, and glare (BUG) ratings.

LOCAL

Contra Costa County General Plan 2005

The purpose of the Contra Costa County General Plan is to express the broad goals and policies, and specific implementation measures, which will guide decisions on future growth, development, and the conservation of resources. The Contra Costa General Plan only applies to unincorporated areas of the County, including the City Sphere of Influence; the Contra Costa County General Plan does not override the City's regulatory power within the City limits. Scenic, visual, and aesthetic resources are discussed primarily in the Land Use and Open Space Elements. The Land Use Element contains policies that regulate development in order to preserve scenic resources:

Policy 3-18. Flexibility in the design of projects shall be encouraged in order to enhance scenic qualities and provide for a varied development pattern.

Policy 3-105. The scenic assets and unstable slopes of the Vine Hill Ridge are to be protected for open space/agricultural use.

Policy 3-141. Projects proposed along scenic routes will be reviewed to determine if there would be adverse visual impacts, and if so, mitigation measures will be applied. The guidelines for determining visual impacts include, but need not be limited to, the following: (a) Long views across Carquinez Strait or the Bay should not be blocked; (b) If a structure interrupts long views across Carquinez Strait or the Bay, the structure should be designed to enrich the scenic quality as much as possible; (c) Extreme topographic modification, such as cutting off a ridge top, is to be avoided; and (d) Structures highly visible from scenic routes should be designed to blend and harmonize with the natural scenery or background.

3-143. The shoreline and hills along Carquinez Strait between Crockett and Martinez constitute one of the few undeveloped coastal areas in the East Bay. The scenic beauty of the area enhances, and is complemented by, the historic town of Port Costa. Preservation of this resource through the establishment of a recreation area is encouraged by this Plan.

Scenic resources, parks, and recreation land are also considered open space lands. The Open Space Element analyzes open space categorized as Scenic Resources, Historic/Cultural Resources, and Park and Recreational Facilities. The Open Space Element contains goals and policies to help protect aesthetic and visual resources:

Goal 9-A. To preserve and protect the ecological, scenic, cultural/historic, and recreational resource lands of the county.

Policy 9-2. Historic and scenic features, watersheds, natural waterways, and areas important for the maintenance of natural vegetation and wildlife populations shall be preserved and enhanced.

9-D. To preserve and protect areas of identified high scenic value, where practical, and in accordance with the Land Use Element Map.

9-E. To protect major scenic ridges, to the extent practical, from structures, roadways, and other activities which would harm their scenic qualities.

9-F. To preserve the scenic qualities of the San Francisco Bay/Delta estuary system and the Sacramento-San Joaquin River/Delta shoreline

9-12. In order to conserve the scenic beauty of the county, developers shall generally be required to restore the natural contours and vegetation of the land after grading and other land disturbances. Public and private projects shall be designed to minimize damage to significant trees and other visual landmarks.

9-13. Providing public facilities for outdoor recreation should remain an important land use objective in the county, as a method of promoting high scenic quality, for air quality maintenance, and to enhance outdoor recreation opportunities of all residents.

9-24. The appearance of the county shall be improved by eliminating negative features such as non-conforming signs and overhead utility lines, and by encouraging aesthetically-designed facilities with adequate setbacks and landscaping.

9-25. Maintenance of the scenic waterways of the county shall be ensured through public protection of the marshes and riparian vegetation along the shorelines and delta levees, as otherwise specified in this Plan.

9-27. Physical and visual public access to established scenic routes shall be protected

9-a. Prepare specific plans and/or adopt an ordinance which would delineate the boundaries of and protect the major scenic ridgelines not already under public ownership.

9-b. Carefully study and review any development projects which would have the potential to degrade the scenic qualities of major significant ridges in the county or the bay and delta shoreline.

9-c. Develop hillside and ridgeline design guidelines to provide better guidance for development, particularly as it relates to grading, massing, and relationship of structures to ridgelines.

9-d. Where possible, structures shall not be built on the top of any designated scenic ridgeline.

9-e. Develop and enforce guidelines for development along scenic waterways to maintain the visual quality of these areas. 9-f. Prepare a corridor study in which an appropriate scenic corridor width will be defined along all proposed scenic routes.

9-g. Prepare a visual analysis of proposed scenic routes to identify views of significant visual or cultural value.

9-h. Identify and designate "gateways" within the scenic routes which are located at unique transition points in topography or land use and serve as entrances to regions of the county.

The Open Space Element specifies that for scenic areas that are planned for some amount of development, the application review process shall consider the feasibility of preserving or protecting the scenic qualities of the site. The County Planning Agency shall be responsible for determining the extent and practicality of preserving such resources. The preparation of environmental impact reports can often help to analyze the significance of previously unidentified opportunities. Whenever it is determined to be feasible, scenic features should be protected and maintained, either through land dedication to a public agency or granting of scenic easements.

City of Martinez Downtown Specific Plan 2006

The Martinez Downtown Specific Plan establishes a framework to guide development and improvements for the area over several decades. The purpose of the Downtown Specific Plan is to guide public and private investment to ensure that future development and infrastructure projects help realize the Martinez community goals and visions for the future of Downtown.

The Specific Plan is intended to promote smart growth and sustainable development in Downtown Martinez, by:

1. Providing for compact, pedestrian-oriented development;
2. Providing for denser housing within walking distance of transportation centers;
3. Taking advantage of existing infrastructure;
4. Providing for mixed land uses, and;
5. Requiring attractive, distinctive design for new development

The Downtown Specific Plan includes Urban Design and Historic Preservation Goals to help ensure development grows in accordance with existing infrastructure. These goals and policies include:

Goal UD-1: Strengthen the identity and character of Downtown using the existing historic and architectural urban character of the community, while allowing for new structures that are architecturally compatible with, and complementary to, the existing architectural and historic fabric.

Policy UD-1-1: Through design review, ensure that new development enhances the character of the Downtown Districts by requiring design qualities and elements that contribute to an active pedestrian environment, where appropriate, and ensuring that architectural elements are compatible and in scale with the existing historic structures in the Downtown.

Policy HP-1-3: (with the aim of historic preservation) Encourage new development to be compatible with adjacent historical structures in scale, massing, building materials, and general architectural treatment, through the design review process.

City of Martinez Tree Preservation Ordinance

The City has adopted a Tree Preservation Ordinance (enforced by Chapters 8.08 and 8.12 of the Municipal Code) to provide for protection of trees by controlling tree removal, recognizing in particular that mature trees and native species trees have a profound aesthetic beauty and are a key component of the ecosystem.

The City of Martinez has been recognized since 2003 as a "Tree City USA" by the Arbor Day Foundation for its commitment to urban forestry and promoting the benefits of trees. This recognition requires four standards established by The Arbor Day Foundation and the National Association of State Foresters. The standards include:

- A Tree Board, Department, or Commission
- A Tree Care Ordinance
- A Community Forestry Program With an Annual Budget of at Least \$2 Per Capita
- An Arbor Day Observance and Proclamation

City of Martinez Measure I: Protected Open Space and Parks Overlay (POPO)

The Protected Open Space and Parks Overlay designation (POPO) was adopted by voter initiative (Measure I) in June of 2018. All lands within the Martinez City Limits designated for open space, park, and outdoor recreation use as of January 1, 2017 were designated as "Protected Open Space and Parks," with the exception of the areas of the Martinez marina and harbor waterfront governed by Senate Bill 1424 (Statutes 2014, Chapter. 628). In addition, any land later designated in the General Plan for open space, park, and outdoor recreation use will also automatically be included in the Protected Open Space and Parks overlay designation "Protected Open Space and Parks" specifically includes those lands designated in the 1973 General Plan as: Alhambra Valley Open Space (AV/OS), Environmentally Sensitive Land (ESL), Neighborhood Park (NP), Open Space (OS), Open Space and Recreation Permanent (OS&R), Open Space 30% Slopes (OS-S), Open Space, Parks and Recreation (OS/P&R), Open Space Private (OSP), Open Space/Conservation Use Land (CUL), Parks and Recreation (P&R), and Parks and Recreation, and Permanent Open Space (PPOS).

Allowable uses on land designated as Protected Open Space and Parks are as follows:

1. For open space lands, permitted uses are: nature conservation or study; ecosystem, habitat, and watershed preservation; hiking trails and outdoor open space recreation; agricultural use; forestry use; grazing lands; and other similar uses consistent with the purpose and intent of this Initiative;
2. For park and recreation lands, permitted uses are: park use; outdoor recreation and sports uses – including but not limited to playing fields, outdoor swimming facilities, golf course, outdoor courts for sport use (e.g., tennis, basketball, bocce ball, pickleball, volleyball, etc.); historic site preservation; stables and riding facilities; picnic areas; playgrounds; dog parks; recreation trails; and other similar uses consistent with the intent of this Initiative. Except

as provided for in this Initiative, residential or commercial uses are not allowed on Protected Open Space and Parks.

City of Martinez Municipal Code

Chapter 2.26, *Design Review Committee*, of the Municipal Code establishes an advisory committee to the Planning Commission and staff on Design Review applications; Section 22.34, *General Requirements and Exceptions*, of the Municipal Code is used as regulation guidance. The purpose of these oversight functions is to allow design and site development review of developments, signs, buildings, structures, and other facilities constructed or modified in any zone where design and site development review is required, in order to foster a good design character through consideration of aesthetic and functional relationships to surrounding development, and in order to further enhance the City's appearance, and the livability and usefulness of properties.

The design review process is to promote quality architectural design, good site relationships, attractive landscaping, and other aesthetic considerations of development in the City. Design review is a tool to help buildings "fit in" a neighborhood and reflect the community's vision for how an area should look. Design review regulates the design of structures, signage, and other elements on property. All elements of a project can be reviewed such as choice of building materials, architectural style, window details, grading, drainage, and finishes such as color, railings, and hardware.

Design review approval is required for single-family residence projects when:

- the slope or natural grade under the proposed structure is 10% or greater;
- When an undeveloped parcel adjoining one or more undeveloped parcels is under the same ownership;
- When the structure is located in a visually significant area, and;
- When it is located within a seismic or geologic hazard area.

Design review approval is also required for projects to alter the exterior of an office, commercial, and industrial building; non-residential projects; multi-family residential developments (planned unit developments, subdivisions, etc.); signage, and some conditional use permits.

The intent of Chapter 22.33, *Hillside Development Regulations*, is to implement the aims of the General Plan Land Use Element, Hill Residential Areas and the Environmental Goals and Policies of the Open Space Element, by:

1. Relating the intensity of development to the limitations imposed by topography, hydrology and geology and avoiding development in areas prone to erosion, flooding and landsliding; and
2. Ensuring that the level of development is consistent with the level of services which reasonably can be provided in hill areas; and

3. Preserving the natural features, environmental quality and scenic character of the hills while providing creative, innovative and safe residential development with a variety of housing types.

The provisions of Chapter 22.33 shall apply to any form of residential development including all sites to be developed as a subdivision or as a planned unit development on properties with any areas of 10% and/or above slope as shown on the Slope Analysis or Seismic and Geologic Hazards Maps of the Open Space, Conservation, Seismic Safety, Scenic Roadway Element of the General Plan or as determined by a slope and hazard area map.

The intended purpose of Chapter 22.47, *Historic Resource Provisions*, is to establish a framework for the preservation of structures and districts which significantly contribute to the cultural and architectural heritage of the City. Historic preservation will safeguard the heritage of the City by providing for the protection of significant landmarks and areas, enhance the visual character of the City by encouraging compatible architectural styles which reflect unique and established architectural traditions, foster public appreciation of the historic character of the City, and strengthen the local economy by preserving, enhancing and unifying the City's historic attractions to residents, tourists and visitors.

City of Martinez General Plan

The adopted City of Martinez General Plan provides policy guidance regarding aesthetics and visual character in the Land Use and Conservation and Open Space Elements and provides policy framework for scenic roadways.

4.1.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact associated with aesthetics if it will:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality;
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

IMPACTS AND MITIGATION MEASURES

Impact 4.1-1: General Plan implementation could result in substantial adverse effects on scenic vistas (Less than Significant)

The Martinez Study Area contains numerous areas and viewsheds with relatively high scenic value. Scenic views in the Study Area include views of the Mount Diablo, the Alhambra Valley, Carquinez Strait Shoreline, agricultural lands to the south and west of the City, wildlife habitat areas and natural riparian areas along Alhambra Creek, rolling hillsides with natural grasslands, and oak tree habitats to the west of the City. Views of scenic areas can be viewed from numerous public and private vantage points throughout the Study Area, including highways, roads, open space areas, and private residences and businesses.

Buildout of the proposed General Plan Update would allow for new development to occur throughout the Study Area that may result in changes to the skyline throughout the Study Area, which could partially obstruct or interfere with views of the surrounding hillsides, Mount Diablo, the Carquinez Strait, and the foothill areas surrounding the Martinez Study Area. However, as shown in Figure 2-2, the General Plan Update Land Use Map would maintain existing designated Open Space and POPO areas in the City. Further, Martinez Municipal Code Title 22, would regulate maximum building height, building setbacks, building type and intensity, and other development characteristics in place in each zoning district to protect scenic vistas within the Study Area.

The Martinez General Plan Update has been developed to preserve expansive areas of open space to ensure that new development is located in and around existing urbanized areas, thus ensuring that new development is an extension of the existing urban landscape and minimizes interruption of views of Mount Diablo, local hillsides, waterways, natural resources, riparian areas, open space, the built environment, and agricultural lands.

The General Plan Update Land Use Map identifies approximately 2,539 acres of land within the City limits and an additional 970 acres in the SOI for open space uses, including lands designated Alhambra Valley Open Space; Alhambra Valley Agricultural Lands; Marina and Water Front; Open Space; Open Space, Private; Open Space, Parks and Recreation; Open Space, Slopes Over 30%; Parks & Recreation, Public Permanent Open Space, and Open Space, Conservation Use Land (see Table 2-1 of Section 2.0, Project Description). These land use designations are intended to ensure that these areas remain preserved and undeveloped throughout the planning horizon, and assists in preserving the scenic value of the lands within the City limits and SOI.

While the proposed General Plan Update Land Use Map identifies extensive land areas for open space, the project would designate existing open space lands in the SOI for development, including residential, industrial, and government. Undeveloped and rural areas in the eastern portion of the SOI would be designated primarily Industrial and Manufacturing (IM), Public and Quasi-Public (PI), and Open Space (OS) with some areas designated Residential Very Low (RVL), Residential Low (RL), and Commercial Light Industrial (CLI). Some of the land designated Open Space Conservation Use Land by the adopted General Plan in the southwestern region of the Alhambra Valley would be designated for residential uses (both Low and Very Low) by the proposed General Plan Update.

All future development would be required to be consistent with the General Plan Update. A central theme of the General Plan Update is to preserve and protect the City's natural resources, open spaces, and character by concentrating new growth in and around existing urbanized areas, and protecting the existing visual character of the Study Area. This is expressed in the Land Use Element Goal LU-G-3 that aims to protect environmentally and visually sensitive sites, hillsides, and natural resources; Goal LU-G-7 which is intended to preserve and enhance both the natural and man-made environment in Alhambra Valley, and Goal LU-G-9 which establishes the preservation of areas with high scenic value and the rural-residential atmosphere in the Alhambra Valley area. Goals LU-G-3, LUG-7, and LU-G-9 are supported by various policies and implementation measures. LU-P-3.6 requires all development, planning, and infrastructure projects to be reviewed to ensure that impacts to open space and scenic resource impacts are reduced through design features that preserve a sense of open space and minimize off-site and night sky impacts of outdoor lighting. LU-P-7.1 and LU-I-7.1a ensure that structures in the Alhambra Valley are designed to blend into, rather than dominate, the natural setting. LU-P-7.2 only allows development which is sensitive to available natural resources and features and states that new development shall generally conform to natural contours and avoid excessive grading. LU-P-7.3 ensures the design of new projects preserves hilltop ridges, rock outcroppings, mature stands of trees and other natural features to the greatest extent possible. LU-P-9.1 encourages scenic features to be protected or maintained through land dedication to a public agency or through the granting of scenic or conservation easements. LU-P-9.2 requires the engineering of slopes to avoid damage to the visual quality of hillsides. LU-P-9.5 discourages the construction of new structures on the top of scenic ridges or within 50 feet of the ridgeline. LU-P-9.6 encourages the enhancement of and the protection of access to established scenic routes through the development of trails and other facilities. LU-P-9.8 encourages the use of scenic easements to protect agricultural and park lands which abut land with urban land use designations such as residential and commercial uses allowing for visual relief in urbanized areas.

Goals and policies in the Open-Space and Conservation Element also promote the protection and preservation of open space lands and natural resources (including visual amenities) throughout the Study Area. Goal OSC-G-1 aims to maintain and enhance the integrity of Martinez's visual environment. Many policies in the General Plan Update support Goal OSC-G-1, and call for the preservation and enhancement of the area's visual resources. Specifically, OSC-P-1.1 encourages the preservation of visually significant skyline vegetation, including major woodlands and ridgelines. OSC-P-1.2 encourages the City to explore opportunities for maintaining and enhancing major scenic routes, including the official designation of scenic routes. OSC-P-1.3 encourages large-scale landscaping areas between adjacent parcels to provide a sense of continuous open space and provide a natural buffer for development. OSC-P-1.5 supports open space acquisition efforts by the East Bay Regional Parks District, the John Muir Land Trust, and other organizations. Land use policy and design review policy OSC-P-1.6 preserves the visual quality of ridgelines and ensures that minimal or no impact to the City's ridgelines will occur. OSC-P-1.7 requires the City to continue to coordinate with residents, developers, East Bay Regional Parks, and other groups to provide visual continuity between natural vegetation and developed areas through the use of landscaping, planting street trees, and other "natural" buffers along natural areas. OSC-P-1.11 maintains existing open space areas through the implementation of the Protected Open Space and Parks Overlay (POPO) land use overlay district designation, as set forth in Section 2.5 of the General Plan Land Use Element.

Future development would be required to be consistent with the proposed General Plan Update and the General Plan Update Land Use Map. The implementation of the policies contained in the Land Use, and Open Space and Conservation Elements listed above are intended to ensure that new urban residential and non-residential development in the Martinez Study Area is located in and around existing urbanized areas to the extent possible.

Municipal Code Chapter 2.26, *Design Review Committee*, provides that development projects in “visually significant areas,” within City limits be reviewed on the basis of Chapter 22.34, *General Requirements and Exceptions*, which establishes provisions and exceptions that are common to more than one or all zoning districts. This review ensures that the architecture and general appearance of the site, structures and grounds will be in keeping with the character of the neighborhood, will not be detrimental to the orderly and harmonious development of the City, and reflect City development policies and goals. Additionally, Martinez Municipal Code Chapter 22.33, *Hillside Development*, regulates development of hillside areas by relating the number, distribution, and density of dwelling units and other buildings to the topography to prevent disfigurement of the terrain through extensive cut and fill. Accordingly, projects which may impact views of ridgelines would be given particular attention. Future development within the City’s SOI that is under the County’s land use control would be subject to the County’s entitlement requirements, regulations, and design review process, presented in the 2005 County General Plan. Furthermore, the General Plan Update goals, policies, and implementation measures are intended to ensure that urbanization of the Study Area would not result in substantial adverse effects on a scenic vista.

The proposed General Plan Update policies strive to achieve visual compatibility with nearby open space resources to the extent possible. This approach would reduce impacts to visual resources, including scenic views, by maximizing opportunities for open space preservation outside of established urban areas. With the implementation the goals, policies, and implementation measures in the proposed General Plan Update and adherence to the City’s Municipal Code regarding design review and hillside development, the potential for new development to interrupt scenic views, including views of Mount Diablo, the Carquinez Strait, hillsides, open space areas within and to the west of the City, and development of currently undeveloped natural lands, would be minimized. Implementation of the General Plan Update would not have a substantial adverse effect on scenic vistas and this impact would be **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Land Use Element

Goals

- LU-G-3 Protect environmentally and visually sensitive sites, hillsides and natural resources wherever feasible.
- LU-G-7 Preserve and enhance both the natural and man-made environment in Alhambra Valley.
- LU-G-9 Preserve areas of high scenic value and the rural-residential atmosphere in the area within Alhambra Valley.

Policies

- LU-P-1.5 Continue current design review process for all new development, renovation, and remodeling to preserve the existing character of individual neighborhoods.
- LU-P-2.5 New multi-family residential development should be visually and functionally integrated and consistent in scale, mass, and character when located within an existing residential neighborhood.
- LU-P-3.3 To the extent possible, retain the channels, floodplains, and riparian corridors (including suitable setbacks from top of bank) such as Alhambra Creek and its tributaries as significant open space areas. These areas should be maintained in their natural state to function as appropriate open space areas and to support a riparian habitat where feasible. Require, where possible, development within the Creek watersheds to preserve watershed integrity, including natural vegetation, soil and slope stability, water quality, scenic values, and potential archaeological resources.
- LU-P-3.6 Review all development proposals, planning projects, and infrastructure projects to ensure that open space and scenic resource impacts are reduced by maximizing design features that preserve a sense of open space and by minimizing off-site and night sky impacts of outdoor lighting. The review should include the construction and operation of the project.
- LU-P-7.1 Structures shall be designed to blend into, rather than dominate, the natural setting, especially on ridgelines. The massing of new dwellings should be compatible with the natural setting.
- LU-P-7.2 Only allow development which is sensitive to available natural resources and features. New development shall generally conform to natural contours and avoid excessive grading.
- LU-P-7.3 Hilltop ridges, rock outcroppings, mature stands of trees, and other natural features shall be preserved to the greatest extent possible in the design of new projects.
- LU-P-9.1 To the extent feasible, scenic features should be protected or maintained, either through land dedication to a public agency or through the granting of scenic or conservation easements.
- LU-P-9.2 High quality engineering of slopes shall be required to avoid soil erosion, downstream flooding, slope failure, loss of vegetative cover, high maintenance costs, property damage, and damage to visual quality.
- LU-P-9.3 In order to conserve the scenic beauty of Alhambra Valley, developers shall generally be required to restore the natural contours and vegetation of the land after grading and other land disturbances. Public and private projects shall be designed to minimize damage to significant trees and other visual landmarks.

4.1 AESTHETICS

- LU-P-9.4 Extreme topographic modification, such as filling in canyons or removing hilltops shall be avoided. Clustering and planned development approaches to development shall be encouraged. All future development plans, whether large-scale or small-scale, shall be based on identifying safe and suitable sites for buildings, roads, and driveways.
- LU-P-9.5 The construction of new structures on the top of scenic ridges or within 50 feet of the ridgeline shall be discouraged.
- LU-P-9.6 Enhance and protect access to established scenic routes through the development of trails and other facilities.
- LU-P-9.8 The use of scenic easements shall be encouraged to protect agricultural and park lands which abut land with urban land use designations such as residential and commercial uses.
- LU-P-9.9 Preserve the visually open character of Alhambra Valley and Reliez Valley Roads.

Implementation Measures

- LU-I-1.5a Consider the adoption of design guidelines and residential objective design standards as part of the Zoning Ordinance to assist with review of new development and encourage neighborhood compatibility.
- LU-I-2.5a Provide high quality design review and inspection services throughout the Downtown Specific Plan area for all development activities.
- LU-I-3.4b Consider amendments to the Zoning Ordinance establishing suitable setbacks and potential open space areas for channels, floodplains, and riparian corridors. Ordinance amendments should consider regulations to protect riparian habitat, preserve watershed integrity, natural vegetation, soil and slope stability, water quality, scenic values, and potential archaeological resources.
- LU-I-4.1a Consider Zoning Ordinance and/or Specific Plan amendments to strengthen design guidelines within the Downtown Martinez Specific Plan area to preserve, enhance, and complement the existing character in Downtown Martinez and other historical commercial and residential areas.
- LU-I-3.5a Require design review of plans by both the Design Review Committee and Planning Commission to ensure that each proposed development has been designed in a sensitive manner to the existing natural terrain.
- LU-I-3.5b Consider an ordinance that restricts development in environmentally sensitive areas such as constrained sites, hillsides and natural resources thereby protecting the scenic beauty and natural terrain. To the extent development is allowed, consider an ordinance amendment that establishes requirements and standards to ensure that new development complements the existing environment in terms of form, scale, and physical appearance. Such requirements and standards shall be aimed at ensuring that

structures shall complement the existing topography to the greatest extent possible and reducing visual impacts of such development using landscaping, screening, and siting techniques.

- LU-I-3.6a Amend the Zoning Ordinance to require that light or glare from interior or exterior lighting, industrial, mechanical or chemical processes, or from reflective materials used or stored on a site, be shielded or modified to prevent emission of light or glare beyond the property line as feasible. The amendment shall address placement of exterior light sources to eliminate spillover illumination or glare in the night sky and onto adjoining properties to the maximum extent feasible, and not interfere with the normal operation or enjoyment of adjoining properties.
- LU-I-7.1a Strengthen design guidelines to require development proposals to include an environmentally-superior design alternative as part of the environmental review process.
- LU-I-9.1b Consider the adoption and maintenance of regulations and design standards for new residential development to preserve the rural residential atmosphere in Alhambra Valley.
- LU-I-9.1c Maintain standards through the review and approval process for development of hillsides to protect slopes and minimize visual impacts.

Open Space and Conservation Element

Goals

- OSC-G-1 Maintain and enhance the integrity of Martinez’s visual and natural environment and preservation of habitat.

Policies

- OSC-P-1.1 Where feasible and appropriate, preserve visually significant skyline vegetation, particularly major woodlands and ridgelines.
- OSC-P-1.2 Explore opportunities for maintaining and enhancing major scenic routes, including the official designation of scenic route.
- OSC-P-1.3 Encourage and support development of large-scale landscaping areas between adjacent parcels to create an overall sense of continuity and buffer when possible.
- OSC-P-1.5 Support open space acquisition efforts by the East Bay Regional Parks District, the John Muir Land Trust, and other organizations.
- OSC-P-1.6 Preserve the visual quality of ridgelines by limiting or prohibiting development on or near ridgelines.
- OSC-P-1.7 Continue to coordinate with residents, developers, East Bay Regional Park District, and other groups to provide visual continuity between natural vegetation and developed

areas using landscaping, planting street trees, and other “natural” buffers along natural areas.

OSC-P-1.8 Ensure that development proposals include riparian corridor preservation, protection, and restoration.

OSC-P-1.9 Encourage open shade structures, trees, high-albedo ‘cool’ roofs, vegetated ‘green’ roofs, and specialized paving materials in the downtown and other highly paved and highly built up areas to reduce the heat island effect.

OSC-P-1.10 Encourage future designation of park and open space sites well in advance of an area’s development, even if the sites do not presently lie within the incorporated City boundaries and acquire them as funds become available.

OSC-P-1.11 Maintain existing open space areas through implementation of the Protected Open Space and Parks Overlay (POPO) land use overlay district designation as set forth in Section 2.5 of the General Plan Land Use Element.

Implementation Measures

OSC-P-1.1a Consider the establishment of standards in the Zoning Ordinance and adopted design guidelines to minimize visual impact to ridgelines from potential development.

OSC-I-1.1b Through the subdivision and design review entitlement processes, discourage construction and the creation of lots on or near ridgelines. Where no alternative construction site is feasible, ensure that building forms and tree canopies reduce the visual impact of new construction from lower vantage points.

OSC-I-1.10c Support efforts by the East Bay Regional Park District, John Muir Land Trust, and others to acquire lands to protect hillsides and ridgelines as visual resources.

OSC-I-13.1a Consider the adoption of a tree planting program for streets and other open spaces along the creek in which riparian-related plants are used to enhance and expand the corridor, visually enhance the space, support wildlife and fish habitat restoration, and provide additional shade.

Impact 4.1-2: General Plan implementation could substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, within a state scenic highway (Less than Significant)

While the Martinez Study Area contains numerous scenic resources, there are no officially designated scenic highways located in the vicinity of Martinez. There is one officially designated scenic highway corridor in Contra Costa County: Interstate 680, from the Alameda County line to the junction with State Route 24. This officially designated scenic highway corridor does not provide views of Martinez or the immediate surrounding areas. Additionally, there are three Eligible State Scenic Highway Corridors within Contra Costa County that have not yet been officially designated: State Route 4 near Antioch and Sacramento; Interstate 580 westward toward Tracy and Route 4

near Brentwood (All); and Santa Clara County line to Route 24 in Walnut Creek, are all designated as Eligible State Scenic Highway Corridors. These sections of highway lie outside of the Study Area and do not provide views of Martinez.

Buildout under the proposed General Plan Update and implementation of the proposed General Plan Update Land Use Map has the potential to result in new and expanded development along highway corridors with scenic values, even though these corridors are not officially designated as State Scenic Highways. Interstate 680 is the principal highway corridor through the Martinez Study Area. Development under the proposed General Plan Update and the land use designations identified on the Land Use Map, would allow for industrial and manufacturing land uses along the Interstate 680 corridor, including the development of lands to the west and east of Interstate 680, which are primarily undeveloped. Mount Diablo is a prominent natural feature visible from several locations within the City and the Study Area, and is located to the southeast of Martinez.

While new development within the Study Area, including development east of Interstate 680, has the potential to intermittently interrupt views of Mount Diablo and the surrounding foothills and hillsides from the Interstate 680 corridor, all future development would have to comply with the policies and implementation measures of the proposed General Plan Update and other local regulatory policies, which would minimize potential impacts. As discussed in Impact 4.1-1, General Plan Update Policy OSC-P-1.1 encourages the preservation of visually significant skyline vegetation, including major woodlands and ridgelines. OSC-P-1.2 encourages the City to explore opportunities for maintaining and enhancing major scenic routes, including the official designation of scenic routes. Policy OSC-P-1.6 preserves the visual quality of ridgelines and ensures that minimal or no impact to the City's ridgelines will occur. Additionally, Municipal Code Chapter 2.26, *Design Review Committee*, provides that development projects in "visually significant areas," within City limits be reviewed on the basis of Chapter 22.34, *General Requirements and Exceptions*, which establishes provisions and exceptions that are common to more than one or all zoning districts. Martinez Municipal Code Chapter 22.33, *Hillside Development*, regulates development of hillside areas by relating the number, distribution, and density of dwelling units and other buildings to the topography to prevent disfigurement of the terrain through extensive cut and fill. Historic buildings would be preserved as required by federal, State, and local policies. The General Plan Update Historic, Cultural, & Arts Element fosters the protection, preservation, and rehabilitation of Martinez's historic and cultural heritage and is supported by many policies and implementation measures including: HCA-P-1.7 which encourages new development to be compatible with adjacent historical structures in scale, massing, building materials, and general architectural treatment.

Future development within the City's SOI that is under the County's land use control would be subject to the County's entitlement requirements, regulations, and design review process, presented in the 2005 County General Plan. All future development would be required to be consistent with the General Plan Update. While there are no designated scenic highways in Martinez, a central theme of the General Plan Update is to preserve and protect the City's natural resources, open spaces, and character by ensuring new development is sensitive to natural resources and features, and by protecting the existing visual character of the Study Area. The General Plan Update goals, policies, and implementation measures are intended to ensure that

urbanization of the Study Area would not substantially damage scenic resources. Therefore, implementation of the General Plan Update would not significantly impact scenic resources within a State scenic highway and impacts would be **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

In addition to the Historic, Cultural & Arts Element Goals, Policies, and Implementation Measures, below, refer to the Land Use and Conservation and Open Space Goals, Policies, and Implementation Measures described and listed under Impact 4.1-1.

Historic, Cultural & Arts Element Goals

HCA-G-1 Foster protection, preservation, and rehabilitation of Martinez’s historic and cultural heritage.

Policies

HCA-P-1.1 Promote and provide outreach for community and visitor appreciation for the history of Martinez.

HCA-P-1.2 Strengthen and enhance the historic, natural, and cultural character of Martinez to help support economic development in the Downtown and other areas with historic value

HCA-P-1.3 Encourage relocation of older buildings for preservation and restoration, rather than demolition, pursuant to the California Historical Building Code (Section 18950 of the Health and Safety Code).

HCA-P-1.4 Recognize the importance of protecting significant historic and archaeological resources by identifying, when possible, historic and archaeological resources and potential impacts on such resources by consulting the Martinez Historical Society and their Historic Resource Inventory, and the State Office of Historic Preservation’s California Historic Resources Information System (CHRIS).

HCA-P-1.7 Encourage new development to be compatible with adjacent historic structures in scale, massing, building materials, and general architectural treatment

HCA-P-1.8 Through the design review process, encourage the adaptation and compatible reuse of historic buildings to preserve the historic resources that are a part of Martinez’s heritage

HCA-P-1.9 Encourage upkeep, restoration, rehabilitation, and reconstruction of private historic structures to conserve the integrity of the buildings with respect to the character of the buildings and their settings, in the best possible condition when possible and feasible.

HCA-P-1.11 Coordinate and encourage historic preservation activities and historic preservation groups, community groups, non-profits, and grassroots efforts to educate the community and visitors through tours, special events, and commemorative art.

Implementation Measures

- HCA-I-1.1a Encourage reuse and rehabilitation of historic buildings in accordance with the Secretary of the Interior's Standards for the Preservation of Historic Structures.
- HCA-I-1.1b Encourage the use of the State Historical Building Code where applicable.
- HCA-I-1.1d Prepare a historic context for Downtown Martinez and other historic areas of the City like the former Italian Fishing Village along Berrellessa Street north of the railroad tracks. Utilize the contexts to update the 1982 Historic Resource Inventory and develop surveys for areas outside of the Downtown. Use the surveys to identify structures that may be eligible for local, State and national historic resource designation.
- HCA-I-1.1f Require a cultural and archaeological survey prior to approval of any project where a known historic, archaeological, or other cultural resource is located or which would require excavation in an area that is sensitive for cultural or archaeological resources. If significant cultural or archaeological resources, including historic and prehistoric resources, are identified, appropriate measures shall be implemented, such as avoidance, capping of the resource site, or documentation and conservation, to reduce adverse impacts to the resource.
- HCA-I-1.1j Establish a Mills Act Program to provide economic incentives for the restoration and preservation of qualified historic buildings by private property owners.
- HCA-I-1.1i Conduct periodic workshops to educate officials and Community Development Department staff about historic resources and policies. Utilize these forums to clarify which existing codes relate to historic resources and whether they are being adequately enforced.
- HCA-I-1.1m Develop an outreach program to communicate information on programs, services, requirements and incentives related to the protection and preservation of historic resources. Provide information for homeowners, contractors and City staff regarding the California Historic Building Code, Mills Act Program, historic preservation tax credits, available grants and other preservation incentives."
- HCA-I-2.1b Develop a program to promote cultural and historic resources in Martinez, especially in Downtown Martinez. Collaborate with PRMCC, downtown businesses, Main Street Martinez, and the Chamber of Commerce, where appropriate, to develop and implement the program.
- HCA-I-2.1e Consider working with the State Office of Historic Preservation to conduct periodic workshops to educate the community and City staff about historic resources and policies whenever possible.

Impact 4.1-3: In non-urbanized areas, General Plan implementation could substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, the project could conflict with applicable zoning and other regulations governing scenic quality (Less than Significant)

Short Term

Construction activities for future development accommodated through implementation of the General Plan Update would be temporarily visible within the area immediately surrounding the specific development site. Visible features associated with construction activities would include exposed building pads and staging areas for grading, excavation, and construction equipment. In addition, temporary structures could be located on the respective development site during various stages of construction, within materials storage areas, or associated with construction debris piles on site. Exposed trenches, roadway bedding, spoils/debris piles, and steel plates would be visible during construction of street and utility infrastructure improvements. Construction activities are an anticipated activity associated with an urbanized area and would not conflict with applicable zoning and other regulations governing scenic quality. Individual project construction activities would be required to adhere to City rules and regulations associated with the maintenance of construction sites. Future construction activities associated with implementation of the General Plan Update would be temporary in nature and all construction equipment would ultimately be removed from individual project sites following completion of construction activities. As future construction activities would not conflict with applicable zoning and other regulations governing scenic quality, short-term construction-related impacts would be **less than significant**.

Long Term

The Martinez Study Area contains numerous areas that are deemed to have relatively high visual character and quality. As previously discussed, significant visual aspects of the Study Area include views of Mount Diablo, the Alhambra Valley, Carquinez Strait Shoreline, agricultural lands to the south and west of the City, wildlife habitat areas and natural riparian areas along Alhambra Creek, rolling hillsides with natural grasslands, and oak tree habitats to the west of the City. The visual character and quality of the Study Area includes public and private lands throughout the City and Study Area, including highways, roads, open space areas, and private residences and businesses.

Buildout of the proposed General Plan Update would allow for new development to occur throughout the Study Area, further contributing to the Study Area's urbanization, while also preserving expansive areas of open space and minimizing interruption of views associated with scenic resources, as discussed in Impact 4.1-1. New development resulting from implementation of the General Plan Update would be reviewed for consistency with the General Plan policies and implementation measures as well as compliance with the City's Municipal Code, including applicable zoning and other regulations governing scenic quality.

Implementation of General Plan Update Land Use Element and Conservation & Open Space Element goals, policies, and implementation measures are intended to ensure that new urban residential and

non-residential development in the Martinez Study Area is located in and around existing urbanized areas to the extent possible. Additionally, these policies strive to achieve visual compatibility with nearby open space resources. This approach would maximize opportunities for open space preservation outside of established urban areas and further ensure that new development is designed in a way that enhances the visual quality of the community, compliments the visual character of the City, and that potential aesthetic impacts associated with new development are minimized or avoided.

Martinez Municipal Code Title 22, *Zoning*, regulates maximum building height, building setbacks, building type and intensity, landscaping and screening requirements and other development characteristics associated with each zoning district to protect the existing scenic quality of a site and surrounding area. As part of the City's development review process, individual development projects would be reviewed for compliance with the zoning regulations specific to the site. Additionally, Municipal Code Chapter 2.26, *Design Review Committee*, provides that development projects in "visually significant areas," within City limits be reviewed on the basis of Chapter 22.34, *General Requirements and Exceptions*, which establishes provisions and exceptions that are common to more than one or all zoning districts. Martinez Municipal Code Chapter 22.33, *Hillside Development*, regulates development of hillside areas by relating the number, distribution, and density of dwelling units and other buildings to the topography to prevent disfigurement of the terrain through extensive cut and fill.

The implementation of policies and implementation measures contained in the General Plan Update and compliance with the Martinez Municipal Code would ensure that new development in the Study Area would not conflict with applicable zoning and other regulations governing scenic quality and would be designed to enhance the scenic quality of the area and be compatible with existing development and open space resources. Therefore, implementation of the General Plan Update would not conflict with applicable zoning and other regulations governing scenic quality and impacts would be **less than significant** in this regard.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

See Goals, Policies, and Implementation Measures described and listed under Impact 4.1-1.

Impact 4.1-4: General Plan implementation could result in the creation of new sources of substantial light or glare which would adversely affect day or nighttime views of the area (Less than Significant)

The primary sources of daytime glare are generally sunlight reflecting from structures, other reflective surfaces, and windows. Implementation of the proposed General Plan Update would introduce new sources of daytime glare into previously undeveloped areas of the Study Area and increase the amount of daytime glare in existing urbanized areas. The General Plan Update Land Use Map identifies areas for the future development of residential, commercial, industrial, recreational, and public uses. Such uses may utilize materials that produce glare. Daytime glare impacts would be

most severe in areas that have been previously undisturbed, and areas around existing residential development.

The primary sources of nighttime lighting are generally from exterior building lights, street lights and vehicle headlights. Exterior lighting around commercial and industrial areas may be present throughout the night to facilitate extended employee work hours, ensure worker safety, and to provide security lighting around structures and facilities. Nighttime lighting impacts would be most severe in areas that do not currently experience high levels of nighttime lighting. Increased nighttime lighting can reduce visibility of the night sky, resulting in fewer stars and planets being visible and generally detracting from the visual quality of the area.

Buildout of the proposed General Plan Update would potentially result in new development in areas that are underdeveloped or undeveloped and in a semi-natural state in the SOI. In terms of nighttime views, the change could be significant because large areas with relatively little existing lighting sources could be replaced with buildings that would emit light and glare. In addition to building lighting, street lights would be installed in accordance with City standards, along with the security and parking lot lighting, outdoor signage, etc. Chapter 22.36, *Off-Street Parking and Loading Facilities*, regulates glare by forcing street lighting to be directed away from adjoining premises from the source. Chapter 16.32, *General Restrictions*, regulates signage posted in the City, including regulating size, shape, color, and light produced by the sign. In addition, Chapter 21.28.020, *Street Lights*, establishes that subdividers are to provide a street lighting system and that that system is to conform with City specifications, within subdivisions.

The proposed Martinez General Plan Update has the potential to increase impacts from light and glare and addresses this through Policy LU-P-3.6 and Implementation Measure LU-I-3.6a. LU-P-3.6 requires all development, planning, and infrastructure projects to be reviewed to ensure that impacts to open space and scenic resource impacts are reduced through design features that preserve a sense of open space and minimize off-site and night sky impacts of outdoor lighting. LU-I-3.6a requires the Zoning Ordinance to be amended to require that light or glare from interior or exterior lighting, industrial, mechanical or chemical processes, or from reflective materials used or stored on a site, be shielded or modified to prevent emission of light or glare beyond the property line, as feasible, and addresses night sky impacts. In addition, Policy LU-1.4 considers development of design guidelines that include standards to protect and enhance historic structures. Design guidelines can serve as a planning tool to ensure that development projects incorporate design features and materials that will reduce lighting and glare impacts. With the implementation of the proposed General Plan Update policies and implementation measures, this potential impact would be reduced to a **less than significant** level.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Land Use Element

Goals

LU-G-3 Protect environmentally and visually sensitive sites, hillsides, and natural resources wherever feasible.

Policies

LU-P-1.4 Consider development of design guidelines that include standards to protect and enhance historic structures, wherever feasible.

LU-P-3.6 Review all development proposals, planning projects, and infrastructure projects to ensure that open space and scenic resource impacts are reduced by maximizing design features that preserve a sense of open space and by minimizing off-site and night sky impacts of outdoor lighting. The review should include the construction and operation of the project.

Implementation Measures

LU-I-3.6a Amend the Zoning Ordinance to require that light or glare from interior or exterior lighting, industrial, mechanical or chemical processes, or from reflective materials used or stored on a site, be shielded or modified to prevent emission of light or glare beyond the property line as feasible. The amendment shall address placement of exterior light sources to eliminate spillover illumination or glare in the night sky and onto adjoining properties to the maximum extent feasible, and not interfere with the normal operation or enjoyment of adjoining properties.

4.1.4 CUMULATIVE IMPACTS

As discussed, the General Plan Update would support additional development beyond existing conditions and could increase residential densities and non-residential land use intensities in specific areas within the Study Area. This new development may result in changes to the skyline throughout the Study Area, which may partially obstruct or interfere with views of surrounding visual features, including the Mount Diablo, the Alhambra Valley, Carquinez Strait Shoreline, agricultural lands to the south and west of the City, wildlife habitat areas and natural riparian areas along Alhambra Creek, rolling hillsides with natural grasslands, and oak tree habitats to the west of the City. Furthermore, buildout under the proposed General Plan Update has the potential to result in new and expanded development along highway corridors with high scenic values, even though these corridors within the Study Area are not officially designated as State Scenic Highways.

Regional growth has and will continue to result in a cumulative aesthetic effect by converting undeveloped and underdeveloped land into developed and occupied areas, and increasing overall levels of nighttime lighting. In general, the General Plan Update Land Use Map proposes an increase in building density in several areas, which could increase the number and distribution of dwelling

units and other buildings, as well as supporting infrastructure. Subsequent projects implemented under the General Plan Update would be required to be consistent with the General Plan Update policies and actions and adopted regulations pertaining to aesthetics and lighting in Martinez.

With the polices and actions included within the General Plan Update and compliance with the Martinez Municipal Code, the proposed project impacts would reduce the cumulative effect of the General Plan Update on visual resources to a less-than-significant level. As a result, the General Plan's incremental contribution to cumulative aesthetic resource impacts would not be **cumulatively considerable**.

4.1.5 SIGNIFICANT UNAVOIDABLE IMPACTS

Impacts to aesthetic resources (scenic vistas, scenic resources, scenic quality and light and glare) associated with the implementation of the General Plan Update would be **less than significant**.

4.1.6 REFERENCES

Federal Highway Administration. 1988. *Visual Impact Assessment for Highway Projects*. FHWA-HI-88-054.

Jones, G.R., J. Jones, B.A. Gray, B. Parker, J.C. Coe, J.B. Burnham, and N.M. Geitner. 1975. "A Method for the Quantification of Aesthetic Values for Environmental Decision Making." *Nuclear Technology* 25(4):682–713

State of California Department of Transportation, Officially Designated County Scenic Highways, <https://dot.ca.gov/-/media/dot-media/programs/design/documents/od-county-scenic-hwys-2015-a11y.pdf>, accessed May 31, 2022.

State of California Department of Transportation, California State Scenic Highways, <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>, accessed May 31, 2022.

Bureau of Land Management (BLM). 1980. *Visual Resource Management Program*. Stock No. 024-001-00116-6. Washington, DC

U.S. Forest Services. 1995. *Landscape Aesthetics: A Handbook for Scenery Management*. Agriculture Handbook Number 701.

U.S. Soil Conservation Service. 1978. *Procedure to Establish Priorities in Landscape Architecture*. Technical Release No. 65. Washington, DC.

This section provides a background discussion of agricultural lands and resources found in the Martinez Study Area. This section is organized with an existing setting, regulatory setting, and impact analysis.

During the NOP comment period, one comment letter was received regarding agricultural resources. In summary, the comment letter noted that the Draft EIR should address the impacts associated from potential conversion of farmlands. All comments received during the 30-day NOP comment period are included within Appendix A.

4.2.1 ENVIRONMENTAL SETTING

AGRICULTURAL RESOURCES

Current agricultural operations within the City of Martinez include the Viano Vineyard, located east of Morello Avenue and south of the railroad tracks near Marie Avenue, as well as the western hills, which provide space for cattle grazing. The Viano Vineyards sits partially within City limits, and partially outside City limits, in the Sphere of Influence (SOI). The western hills are referred to as the Alhambra Valley neighborhood, (located in the western portion of the City) which is known to be an agrarian-based community and contains agricultural operations, such as livestock grazing and dry grain farming. There is also a 154-acre agricultural preserve (Williamson Act contract) area within the City limits, located in the southern portion of the City, south of Alhambra Avenue; and a 102-acre agricultural preserve area within the SOI, south of Pacheco Boulevard in the eastern portion of the Study Area. There are also additional agricultural preserves west of the City, just outside the Study Area.

The California Department of Conservation (DOC), Division of Land Resource Protection, identified important farmland throughout the State through its Farmland Mapping and Monitoring Program (FMMP). The FMMP is non-regulatory and was developed to inventory land and provide categorical definitions of important farmlands and consistent and impartial data to decision makers for use in assessing present status, reviewing trends, and planning for the future of California's agricultural land resources. The program does not necessarily reflect local General Plan actions, urban needs, changing economic conditions, proximity to market, and other factors, which may be taken into consideration when government considers agricultural land use policies. The FMMP periodically prepares *Important Farmland Maps*, which are a hybrid of resource quality (soils) and land use information intended to document the suitability of land for agricultural production.

Table 4.2-1 summarizes the farmland and other classifications by the FMMP for the City and the Study Area. Figure 4.2-1 identifies Important Farmlands and other lands in the City and the Study Area based on FMMP classifications. As shown in Table 4.2-1, there are 4.52 acres of Unique Farmland within the City limits and 28.04 acres of Unique Farmland in the SOI. In addition, there are 8.69 acres of Prime Farmland with City limits, and 1.69 acres in the SOI. There is no Farmland of Statewide Importance or Locally Important Farmland located within the Study Area.

4.2 AGRICULTURAL RESOURCES

TABLE 4.2-1: FMMP FARMLAND CLASSIFICATION AND LAND USE CATEGORIES

Farmland Classification Category	City	SOI	Total
Urban/Built-Up	5,563.15	2,636.83	8,199.97
Grazing	1,562.80	797.76	2,360.57
Local	0	0	0
Prime	8.69	1.69	10.38
Unique	4.52	28.04	32.56
Water	728.24	12.08	740.52
Other	953.61	565.04	1,518.65
Total	8,821.02	4,041.64	12,862.66

SOURCE: CALIFORNIA DEPARTMENT OF CONSERVATION, AND DE NOVO PLANNING GROUP 2022.

Important Farmlands

The California Department of Conservation, as part of its FMMP, prepares Important Farmland Maps indicating the potential value of land for agricultural production. The Contra Costa County Important Farmland Map identifies five agriculture-related categories and three non-agricultural categories:

Prime Farmland: Prime farmland is land with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. The land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. The Study Area contains approximately 10 acres of Prime Farmland. Prime Farmland in the Study Area can be found in a small pocket along the western boundary of the City, as well as in a small pocket within the SOI, east of Morello Avenue and south of the railroad tracks.

Farmland of Statewide Importance: Farmland of statewide importance is farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. The land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. There are no farmlands of statewide importance within the Study Area.

Unique Farmland: Unique farmland is farmland of lesser quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date. The Study Area contains approximately 32 acres of Unique Farmland, which is located in an area east of Morello Avenue and south of the railroad tracks, with approximately 4.5 acres within City limits, and approximately 28 acres within the SOI.

Farmland of Local Importance: Farmland of local importance is considered land important to the local agricultural economy but does not meet the criteria of Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. Farmland of local importance in Contra Costa County is defined as the lands within the Tassajara area, extending eastward to the county boundary and bordered on the north by the Black Hills, the Deer, Lone Tree, and Briones Valleys, the Antioch area, and the Delta. These lands are typically used for livestock grazing. They are capable of

producing dryland grain on a two-year summer fallow or longer rotation with volunteer hay and pasture. The farmlands in this category are included in the U.S. Natural Resources Conservation Service's Land Capability Classes I, II, III, and IV, and lack some irrigation water. There are no farmlands of local importance within the Study Area.

Grazing Land: Grazing land is land on which the existing vegetation is suitable for the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for this category is 40 acres. A majority of Grazing land is located in the western region of the Study Area, much of which falls under the Alhambra Valley neighborhood. Grazing land continues on westward, outside the Study Area. There are also smaller pockets of grazing areas in the northeastern SOI, for a total of 2,360 acres of Grazing Land within the Study Area.

Urban and Built-up Land: This category consists of non-agricultural land occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes. The Study Area contains approximately 8,200 acres of land designated as Urban and Built-Up Land, consuming the majority of the Study Area, and continuing down south towards Pleasant Hill, and east towards Vine Hill and Concord. The two large pockets not dedicated Urban and Built-Up land are the grazing lands of the Alhambra Valley to the west, and the Martinez Marina.

Other Land: Other land is non-agricultural land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines and borrow pits; and water bodies smaller than 40 acres. Vacant and non-agricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land. The Study Area contains approximately 1,518 acres of land designated as Other Land. There are several pockets scattered throughout the Study Area designated as Other Land. A notable pocket is along the shore of the Martinez Marina (Carquinez Strait).

Water Area: This category consists of bodies of water. The Study Area contains a total of 740.52 acres of designated water areas; this is seen on Figure 4.2-1 towards the northern region of the Study Area, and is identified as the Martinez Marina (along Carquinez Strait).

Farmland Preservation

The California Land Conservation Act, also known as the Williamson Act, was adopted in 1965 to encourage the preservation of the State's agricultural lands and to prevent their premature conversion to urban uses. The Williamson Act is described in greater detail under the Regulatory Setting.

There are approximately 257.26 acres, within the Study Area that are currently under Williamson Act contracts. Of these 257.26 acres, approximately 154.77 acres are located within the City limits, and 102.49 acres are located within the SOI (ParcelQuest, 2022).

Figure 4.2-2 depicts the distribution of Williamson Act Contract lands in the City and the Study Area.

FOREST RESOURCES

Forest land is defined by Public Resources Code Section 12220(g), and includes *"land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits."*

Timber land is defined by Public Resources Code Section 4526, and means *"land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis."*

There are no forest lands or timber lands located within the Martinez Study Area.

4.2.2 REGULATORY SETTING

FEDERAL

Farmland Protection Policy Act

The Natural Resources Conservation Service (NRCS), an agency within the U.S. Department of Agriculture, is responsible for implementation of the Farmland Protection Policy Act (FPPA). The purpose of the FPPA is to minimize federal programs' contribution to the conversion of farmland to non-agricultural uses by ensuring that federal programs are administered in a manner that is compatible to State, local, and private programs designed to protect farmland. The NRCS provides technical assistance to federal agencies, State and local governments, tribes, or nonprofit organizations that desire to develop farmland protection programs and policies. The NRCS summarizes FPPA implementation in an annual report to Congress.

Farm and Ranch Lands Protection Program

The NRCS administers the Farm and Ranch Lands Protection Program (FRPP), a voluntary program aimed at keeping productive farmland in agricultural uses. Under the FRPP, the NRCS provides matching funds to State, local, or tribal government entities and nonprofit organizations with existing farmland protection programs to purchase conservation easements. According to the 1996 Farm Bill, the goal of the program is to protect between 170,000 and 340,000 acres of farmland per year. Participating landowners agree not to convert the land to non-agricultural use and retain all rights to use the property for agriculture. A conservation plan must be developed for all lands enrolled based upon the standards contained in the NRCS Field Office Technical Guide. A minimum of 30 years is required for conservation easements and priority is given to applications with perpetual easements. The NRCS provides up to 50 percent of the fair market value of the easement being conserved (NRCS, 2004). To qualify for a conservation easement, farm or ranch land must meet several criteria. The land must be:

- Prime, Unique, or other productive soil, as defined by NRCS based on factors such as water moisture regimes, available water capacity, developed irrigation water supply, soil temperature range, acid-alkali balance, water table, soil sodium content, potential for flooding, erodibility, permeability rate, rock fragment content, and soil rooting depth;
- Included in a pending offer to be managed by a nonprofit organization, State, tribal, or local farmland protection program;
- Privately owned;
- Placed under a conservation plan;
- Large enough to sustain agricultural production;
- Accessible to markets for the crop that the land produces; and
- Surrounded by parcels of land that can support long-term agricultural production.

STATE

California Department of Conservation

The DOC administers and supports a number of programs, including the Williamson Act, the California Farmland Conservancy Program (CFCP), the Williamson Act Easement Exchange Program (WAEPP), and the FMMP. These programs are designed to preserve agricultural land and provide data on conversion of agricultural land to urban use. The DOC has authority for the approval of agreements entered into under the WAEPP. Key DOC tools available for land conservation planning are conservation grants, tax incentives to keep land in agriculture or open space, and farmland mapping and monitoring.

Williamson Act

The California Land Conservation Act, also known as the Williamson Act, was adopted in 1965 to encourage the preservation of the State's agricultural lands and to prevent their premature conversion to urban uses. In order to preserve these uses, the Act established an agricultural preserve contract procedure by which any county or city taxes landowners at a lower rate, using a scale based on the actual use of the land for agricultural purposes, as opposed to its unrestricted market value. In return, the owners guarantee that these properties remain under agricultural production for a 10-year period. The contract is self-renewing; however, the landowner may notify the county or city at any time of the intent to withdraw the land from its preserve status. There are two means by which the landowner may withdraw the land from its contract preserve status. First, the landowner may seek to cancel the contract. This takes the land out of the contract quickly with a minimal waiting period but the landowner pays a statutory penalty to the State. Second, the landowner may notice a non-renewal or seek a partial non-renewal of the contract. Land withdrawal through the non-renewal process involves a 9 or 10-year period (depending on the timing of the notice) of tax adjustment to full market value before protected open space can be converted to urban uses.

Williamson Act subvention payments to local governments have been suspended since the fiscal year 2009-10 due to the State's fiscal constraints. The Williamson Act contracts between landowners and local governments remain in force, regardless of the availability of subvention payments.

Farmland Security Zones

A Farmland Security Zone is an area created within an agricultural preserve by a board of supervisors (board) or city council (council) upon request by a landowner or group of landowners. An agricultural preserve defines the boundary of an area within which a city or county will enter into contracts with landowners. The boundary is designated by resolution of the board or council having jurisdiction. Agricultural preserves must generally be at least 100 acres in size. Farmland Security Zone contracts offer landowners greater property tax reduction. Land restricted by a Farmland Security Zone contract is valued for property assessment purposes at 65 percent of its Williamson Act valuation or 65 percent of its Proposition 13 valuation, whichever is lower.

Forest Practices Rules

The California Department of Forestry and Fire Protection (CalFire) implements the laws that regulate timber harvesting on privately-owned lands. These laws are contained in the Z'berg-Nejedly Forest Practice Act of 1973 which established a set of rules known as the Forest Practice Rules (FPRs) to be applied to forest management related activities (i.e., timber harvests, timberland conversions, fire hazard removal, etc.). They are intended to ensure that timber harvesting is conducted in a manner that will preserve and protect fish, wildlife, forests, and streams. Under the Forest Practice Act, a Timber Harvesting Plan (THP) is submitted to CalFire by the landowner outlining what timber is proposed to be harvested, harvesting method, and the steps that will be taken to prevent damage to the environment. If the landowner intends to convert timberland to non-timberland uses, such as a winery or vineyard, a Timberland Conversion Permit (TCP) is required in addition to the THP. It is CalFire's intent that a THP will not be approved which fails to adopt feasible mitigation measures or alternatives from the range of measures set out or provided for in the Forest Practice Rules, which would substantially lessen or avoid significant adverse environmental impacts resulting from timber harvest activities. THPs are required to be prepared by Registered Professional Foresters (RPFs) who are licensed to prepare these plans (CalFire, 2007). For projects involving TCPs, CalFire acts as lead agency under CEQA, and the county or city acts as a responsible agency.

LOCAL

Martinez Municipal Code

The Martinez Municipal Code includes Section 22.29.120, *Alhambra Valley Districts- Residential and Agricultural Compatibility*. This Section is included in the zoning regulations to enhance and encourage agricultural operations within the Alhambra Valley Districts and provide residents with proper notification of such agricultural uses. Where non-agricultural land uses extend into agricultural areas or exist side by side, agricultural operations can be the subject of nuisance complaints, resulting in detrimental impacts on farming. However, it is intended that through mandatory disclosures, purchasers and users will better understand the impact of living near agricultural operations and be prepared to accept attendant conditions as the natural result of living in or near rural areas.

The purpose of Chapter 22.32, *Agricultural Land Conservation*, is to provide enabling provisions to allow the City to enter into agricultural land preservation contracts permitted by the California

Land Conservation Act. Within this Chapter, Section 22.32.0404, *Contracts*, establishes standards that must be followed in order to keep or renew land conservation contracts.

As per Section 22.24.030, *Permitted Uses*, agricultural uses, including horticulture, viticulture and the raising of crops and fruit or nut-bearing trees are also permitted in Environmental Conservation Districts.

Martinez General Plan

The adopted City of Martinez General Plan addresses agricultural lands and resources in the Land Use and Open Space & Conservation Elements.

4.2.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on agricultural resources if it will:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Important Farmlands), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
- Conflict with existing zoning for agricultural use, or a Williamson Act contract;
- 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));
- Result in the loss of forest land or conversion of forest land to non-forest use; or
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.

There are no lands within or adjacent to the city or the Study Area that are Forest Land as defined by Public Resources Code Section 12220(g), or Timber Land as defined by Public Resources Code Section 4526. There are also no parcels that are currently zoned as forest land, timber, or timber production. Therefore, implementation of the proposed General Plan Update would have no impact on forest land, timber, or timber production and this impact will not be discussed further.

IMPACTS AND MITIGATION MEASURES

Impact 4.2-1: General Plan implementation would result in the conversion of farmlands, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance or involve other changes in the existing environment which due to their location or nature could result in the

conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use (Significant and Unavoidable)

There are no forest lands within the Study Area, nor are there suitable environmental conditions for forest land to be developed; therefore, implementation of the proposed project will not result in the conversion of forest land to non-forest use.

As shown in Table 4.2-1, there are approximately 8.69 acres of Prime Farmland and approximately 4.5 acres of Unique Farmland within the City limits. Within the SOI, there are approximately 1.7 acres of Prime farmland and approximately 28 acres of Unique farmland. The most common land type within the City of Martinez is Urban/built-up land, totaling over 8,000 acres within the City limits and SOI. Not all lands designated as Important Farmlands (Prime, Statewide Importance, and Unique) are currently being utilized for agricultural uses. The Prime Farmland located along the western boundary of the SOI is designated Open Space/Conservation Use Land (CUL) under the proposed General Plan Update Land Use Map; and the other area of Prime Farmland in the SOI, south of the railroad tracks, near Morello Avenue, is designated Open Space. The area of Unique Farmland in the SOI is designated Open Space, whereas the portion that is within the City limits, is designated RL (Residential Low).

Some of the agricultural lands in use or identified as Prime Farmland, Unique Farmland, and Farmland of Statewide Importance by the FMMP are within adopted Specific Plan areas (The Alhambra Hills, Hidden Lakes, and John Muir Parkway Specific Plans). Areas within these Specific Plans have been identified for development and the conversion of farmlands to non-agricultural use were previously contemplated and analyzed as part of the certified EIRs for each Specific Plan area. Implementation of the proposed General Plan Update would not result in new or increased impacts to Prime Farmland, Unique Farmland, and Farmland of Statewide Importance within the Alhambra Hills, Hidden Lakes, or John Muir Parkway Plan areas.

Table 4.2-2 shows the number of acres within the Study Area that have land use designations consistent with agricultural operations. The General Plan Update designates agricultural lands within the Study Area to preserve and protect lands capable of, and generally used for agriculture and grazing activities. As shown in Table 4.2-2, these designations include a total of 2,695.73 acres in the Study Area. The Open Space and Open Space Conservation Use Land designations also allow agricultural uses with the condition it is consistent with the intent of preserving the intended scenic resource. These two designations preserve 1,977.06 acres within the Study Area that allow for grazing activities, as shown in Table 4.2-2.

TABLE 4.2-2: GENERAL PLAN UPDATE LAND USE DESIGNATIONS THAT SUPPORT AGRICULTURAL ACTIVITIES

Land Use Designation	City	Sphere of Influence	Total
Alhambra Valley Agricultural Lands (AV-AL)	157.51	287.90	445.41
Open Space (OS)	357.79	580.39	938.18
Open Space Conservation Use Land (CUL)	1,038.88	-	1,038.88
Environmentally Sensitive Land (ESL)	273.26	-	273.26
Total	1,827.44	868.29	2,695.73

SOURCE: MARTINEZ GENERAL PLAN UPDATE EIR, SECTION 2.0 SECTION DESCRIPTION; TABLE 2-1.

Agricultural Land Use Designations under the General Plan Update

Alhambra Valley Agricultural Lands (AV-AL) - The only area within the City limits with an agricultural land use designation is the western hills area designated Alhambra Valley Agricultural Lands (AV-AL).

This land use designation includes privately owned rural lands, generally in hilly areas that are used for grazing livestock or dry grain farming. The primary purposes of the Alhambra Valley Agricultural Lands designation are to: a) preserve and protect lands capable of and generally used for the production of food, fiber and plant materials; and b) provide opportunities for rural residential single family homes.

Density: Maximum density equivalent to a minimum 5 acres per dwelling unit

Floor Area Ratio: Up to 0.1

Open Space (OS) – This designation is for public and private lands preserved as a scenic or environmental resource, either by public or common interest ownership, or through dedication of scenic open space or other easements or through conditions of development approval or previous designation and zoning action. While alteration of such properties for active recreation is typically not envisioned, naturalistic and agricultural plantings, and trails, may be possible if consistent with the intent of preserving the intended scenic resource and as may be permitted by any easements.

Note: The Protected Open Space and Parks Overlay (POPO) applies to the OS land use designation; therefore, Land Use Element Policy LU-1.2 and Implementation Measure LU-I-1.2a through LU-I-1.2l shall apply to lands within city limits designated OS.

Open Space Conservation Use Land (CUL) – Open space areas with this designation are located in the southwestern portion of the City and are appropriate for agricultural uses, parks/recreation, and very low density residential. Large parcels with limited residential development are intended to conserve natural resources and respect environmental constraints including terrain, soils and habitat.

Note: The Protected Open Space and Parks Overlay (POPO) applies to the CUL land use designation; therefore, Land Use Element Policy LU-1.2 and Implementation Measure LU-I-1.2a through LU-I-1.2l shall apply to lands within city limits designated CUL.

Environmentally Sensitive Land (ESL) – This designation applies to areas that are environmentally sensitive due to a variety of factors including steep terrain, soils instability, earthquake susceptibility, wildlife habitat and wildfire risk. These areas are suitable for open space, agriculture, parks and recreation, trails, and very low density residential.

Note: The Protected Open Space and Parks Overlay (POPO) applies to the ESL land use designation; therefore, Land Use Element Policy LU-1.2 and Implementation Measure LU-I-1.2a through LU-I-1.2l shall apply to lands within city limits designated ESL.

The Martinez General Plan Update includes a wide range of goals, policies and implementation measures aimed at protecting and preserving agricultural lands within the Study Area; these goals and policies are primarily located in the Open Space and Conservation Element. Included in the Open Space and Conservation Element is Policy OSC-P-3.1, which supports the preservation of

productive agricultural lands by establishing programs which secure permanent agricultural use on lands so designated in the City and/or Contra Costa County General Plan. Policy OSC-P-3.3 aims to minimize impacts of development on agricultural uses by requiring new development to provide appropriate buffers of open areas and/or landscaping between the new urban uses and the existing agricultural uses, and Implementation Measure OSC-I-3.5b considers the adoption of a Right to Farm Ordinance, which protects ranchers and farmers within a historically agricultural district from nuisance complaints and unreasonable restrictions and regulations on farm structures or farming practices. These policies are largely reflected in the General Plan Update Land Use Map, which designates the vast majority of Important Farmlands within the Study Area as Open Space or Open Space CUL, with the exception of 4.36 acres of Unique Farmland, which is currently occupied by the Viano Vineyard and designated under the current General Plan as RL (Residential Low).

Adoption of the proposed General Plan Update would not lead to the direct conversion of designated Important Farmland, but rather, would continue the existing land use pattern in Martinez that calls for ongoing infill development within the City. However, since the General Plan Update does not require the preservation of the 4.36 acres of Important Farmland (occupied by the Viano Vineyard and currently designated low-density residential) located within the Study Area, implementation of the General Plan Update could result in the conversion of farmland to non-agricultural uses. Therefore, impacts are considered to be **significant and unavoidable** with regards to agricultural land conservation.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Land Use Element

Goals

- LU-G-8 Encourage the preservation of existing agricultural businesses and minimize and resolve conflicts between agricultural and urban uses within and adjacent to the Alhambra Valley semi-rural residential community.

Policies

- LU-P-8.1 Agriculture shall be protected to maintain the semi-rural atmosphere and to retain a balance of land uses in Alhambra Valley.

Implementation Measures

- LU-I-8.1a Consider the adoption and maintenance of regulations for new development in and adjacent to agricultural areas that ensure its compatibility with agricultural uses. Consideration should be given to appropriate setbacks for structures located within or adjacent to cultivated agricultural lands.
- LU-I-8.1b Consider information brochures or handouts that inform and educate prospective home buyers in or near agricultural areas regarding the incompatibility and hazards associated with nearby agricultural practices

Open Space and Conservation Element**Goals**

OSC-G-3 Preserve productive agricultural lands

Policies

OSC-P-3.1 Encourage the preservation of productive agricultural lands by establishing programs which secure permanent agricultural use on lands so designated in the City and/or Contra Costa County General Plan.

OSC-P-3.2 Foster the fiscal viability of existing viniculture operations by continuing to accommodate small-scale commercial winery operations.

OSC-P-3.3 Minimize impacts of development on agricultural uses by requiring new development to provide appropriate buffers of open areas and/or landscaping between the new urban uses and the existing agricultural uses.

OSC-P-3.4 Reduce the potential for conflicts between existing agricultural uses and new urban development by requiring homebuyer notification of agricultural operations on nearby sites.

OSC-P-3.5 Encourage grazing for watershed and fire protection, as well as a tool for land management, weed control, and native grass restoration.

OSC-P-3.6 Require adequate setbacks for any non-agricultural structures adjacent to cultivated agriculture through the subdivision and site development entitlement process.

Implementation Measures

OSC-I-3.1a Through the subdivision entitlement process, encourage consolidated development, with appropriate land use buffers of parks, open space, and trails, for proposed major subdivisions adjacent to agricultural lands.

OSC-I-3.5a Amend the zoning ordinance to establish a setback standard for non-agricultural structures adjacent to cultivated agriculture.

OSC-I-3.5b Consider adoption of a Right to Farm Ordinance, which protects ranchers and farmers within a historically agricultural district from nuisance complaints and unreasonable restrictions and regulations on farm structures or farming practices.

Impact 4.2-2: General Plan implementation may result in conflicts with existing zoning for Agricultural uses, or a Williamson Act Contract (Less than Significant)

Future development projects resulting from implementation of the General Plan Update, could potentially conflict with lands protected under Williamson Act contracts. There are approximately 257.26 acres within the Study Area that are under Williamson Act contracts. Of these 257.26 acres,

4.2 AGRICULTURAL RESOURCES

approximately 154.77 acres are located within City limits, and 102.49 acres are located within the SOI (ParcelQuest, 2022).

The 154.77 acres within City limits under a Williamson Act Contract (Contract Number 1-85 on Figure 4.2-2) are currently designated as Parks & Recreation, Public Permanent Open Space (PPOS) under the existing Land Use Map. The PPOS designation is designed to protect open spaces, but also allows for limited low density residential where appropriate; where access can be established that meets the standards in the Public Safety Element, and in areas that have geologic stability, or are consistent with the Alhambra Hills Specific Plan for the Alhambra areas. This area (Contract Number 1-85) is adjacent to the Alhambra area, but is also highly susceptible to landslides, indicating geologic instability (refer to Figure 4.6-5 of Section 4.6, Geology, Soils, and Mineral Resources, in this Draft EIR). So, while development is possible, it is highly unlikely within this protected area.

The General Plan Update proposes to keep the 154.77 acres under the Williamson Act Contract largely designated as PPOS, and in addition, the General Plan Update places the Protected Open Space and Parks Overlay Designation (POPO) over the area. Permitted uses under the POPO include nature conservation or study; ecosystem, habitat, and watershed preservation; hiking trails and outdoor open space recreation; agricultural use; forestry use; grazing lands. Except as provided for in the POPO Initiative, residential or commercial uses are not allowed on Protected Open Space and Parks. Further, the proposed General Plan Update designates an extremely small part of the area (Contract Number 1-85) as Low Density Residential. The Low Density Residential designation allows single family homes and semi-rural neighborhoods developed under the County's jurisdiction; density can range from 1.1 to 6.0 dwelling units per acre. The possibility of Low Density Residential development is consistent with the surrounding area as the PPOS also allows for limited low density residential development where appropriate.

Within the SOI, there are two contracts, Contract Numbers 5-69 and 1-94, as shown on Figure 4.2-2. These contracts have a proposed General Plan Update land use designation of Open Space (OS). This land use designation is consistent with the existing land use and does not conflict with the Williamson Act Contract established on these parcels, as the land use allows for agricultural operations.

In addition to the Williamson Act Contract parcels, the proposed General Plan Update designates 445 acres for agricultural uses, all of which are under the Alhambra Valley Agricultural Lands (AV-AL) land use designation, located in the western hills. This land is designated as Open Space CUL under the existing General Plan Update Land Use Map. The AV-AL land use is consistent with the Open Space CUL land use in that they both aim to preserve open and agricultural lands. The primary purposes of the AV-AL designation is to: 1) preserve and protect lands capable of and generally used for the production of food, fiber and plant materials and 2) provide opportunities for rural residential single family homes at an allowed development density of one residential unit per every five acres. While some rural residential development is allowed under the AV-AL land use designation, the purpose of the allowed development is to aid and support agricultural operations.

Adoption of the proposed General Plan Update would not lead to the direct conversion of agricultural lands under a Williamson Act contract, but rather, would continue the existing land

use pattern, which includes continued urbanization of the Study Area. Development of land surrounding parcels under a Williamson Act contract may indirectly cause these parcels to transition to non-agricultural use in the future. However, as described in greater detail under Impact 4.2-1 above, the Martinez General Plan Update includes a comprehensive set of policies and actions aimed at protecting, enhancing, and preserving agricultural lands and agricultural resources throughout the Study Area. Implementation of the proposed General Plan Update, and Land Use Map, would assign compatible land uses to land under a Williamson Act Contract within the Study Area. Therefore, there would be **less than a significant impact** to existing agricultural zoning and Williamson Act Contracts.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Land Use Element

Goals

LU-G-8 Encourage the preservation of existing agricultural businesses and minimize and resolve conflicts between agricultural and urban uses within and adjacent to the Alhambra Valley semi-rural residential community.

Policies

LU-P-8.1 Agriculture shall be protected to maintain the semi-rural atmosphere and to retain a balance of land uses in Alhambra Valley.

Implementation Measures

LU-I-8.1a Consider the adoption and maintenance of regulations for new development in and adjacent to agricultural areas that ensure its compatibility with agricultural uses. Consideration should be given to appropriate setbacks for structures located within or adjacent to cultivated agricultural lands.

LU-I-8.1b Consider information brochures or handouts that inform and educate prospective home buyers in or near agricultural areas regarding the incompatibility and hazards associated with nearby agricultural practices

Open Space and Conservation Element

Goals

OSC-G-3 Preserve productive agricultural lands

Policies

OSC-P-3.1 Encourage the preservation of productive agricultural lands by establishing programs which secure permanent agricultural use on lands so designated in the City and/or Contra Costa County General Plan.

4.2 AGRICULTURAL RESOURCES

- OSC-P-3.3 Minimize impacts of development on agricultural uses by requiring new development to provide appropriate buffers of open areas and/or landscaping between the new urban uses and the existing agricultural uses.
- OSC-P-3.4 Reduce the potential for conflicts between existing agricultural uses and new urban development by requiring homebuyer notification of agricultural operations on nearby sites.
- OSC-P-3.6 Require adequate setbacks for any non-agricultural structures adjacent to cultivated agriculture through the subdivision and site development entitlement process.

Implementation Measures

- OSC-I-3.1a Through the subdivision entitlement process, encourage consolidated development, with appropriate land use buffers of parks, open space, and trails, for proposed major subdivisions adjacent to agricultural lands.
- OSC-I-3.5a Amend the zoning ordinance to establish a setback standard for non-agricultural structures adjacent to cultivated agriculture.
- OSC-I-3.5b Consider adoption of a Right to Farm Ordinance, which protects ranchers and farmers within a historically agricultural district from nuisance complaints and unreasonable restrictions and regulations on farm structures or farming practices.

4.2.4 CUMULATIVE IMPACTS

The City does not have any zoning classifications for forestland, timberland, or timberland production zones, nor does the Study Area include any forestland; therefore, the General Plan Update would not contribute to a significant impact relative to forestland, timberland or timberland production zones.

As shown in Table 4.2-1, there are 8.69 acres of Prime farmland and approximately 4.5 acres of Unique farmland within the City limits. Within the SOI, there are 1.7 acres of Prime farmland and 28 acres of Unique farmland. The existing Martinez General Plan designates 4.36 acres of Important Farmlands located within the City limits for low-density residential use (i.e., Viano Vineyard). Although the proposed General Plan Update does not change the existing residential designation on the 4.36 acres; implementation of the General Plan Update could result in the conversion of the existing 4.36-acres of Important Farmlands to non-agricultural uses, as the General Plan Update does not propose the long-term protection of the Important Farmlands. A potential loss of designated Important Farmlands within the City limits is considered a **significant and unavoidable** impact. The General Plan Update includes goals, policies, and implementation measures that support the continuance of agricultural activities within the Study Area. However, although the General Plan Update would not result in the direct conversion of designated Important Farmland or agricultural land under a Williamson Act contract, the General Plan Update still allows for a potential loss of designated Important Farmlands within City limits. As a result, the General Plan's incremental contribution to cumulative agricultural resources impacts would be **cumulatively significant and considerable** in regards to:

- Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Important Farmlands), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

4.2.5 SIGNIFICANT UNAVOIDABLE IMPACTS

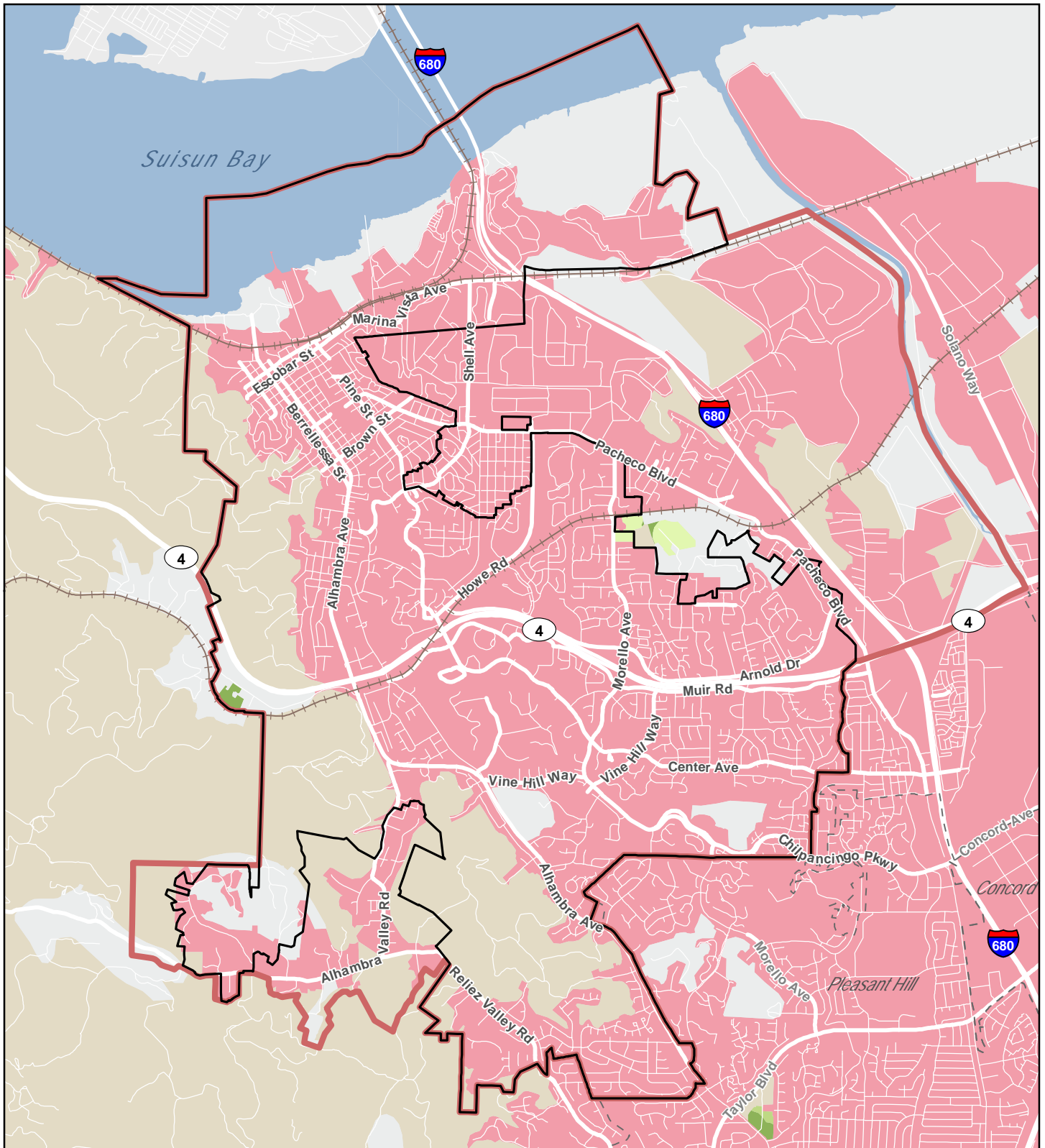
Impacts to agricultural resources associated with the implementation of the General Plan Update would be **significant and unavoidable** specific to the potential conversion of Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Important Farmlands), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use for both project and cumulative conditions.

4.2.6 REFERENCES

California Department of Conservation (DOC), Important Farmland Categories, <https://www.conservation.ca.gov/dlrp/fmmp/Pages/Important-Farmland-Categories.aspx>, accessed May 2022.

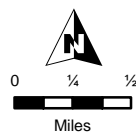
ParcelQuest (2022), *Gus Kramer, County Assessor, Property Search*, available at <https://assr.parcelquest.com/Home/Index>, accessed May 6, 2022.

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Legend

- Martinez City Limits
- Martinez Sphere of Influence
- Other Incorporated Areas
- Prime Farmland
- Farmland of Statewide Importance
- Unique Farmland
- Grazing Land
- Other Land
- Urban and Built-Up Land
- Water Area

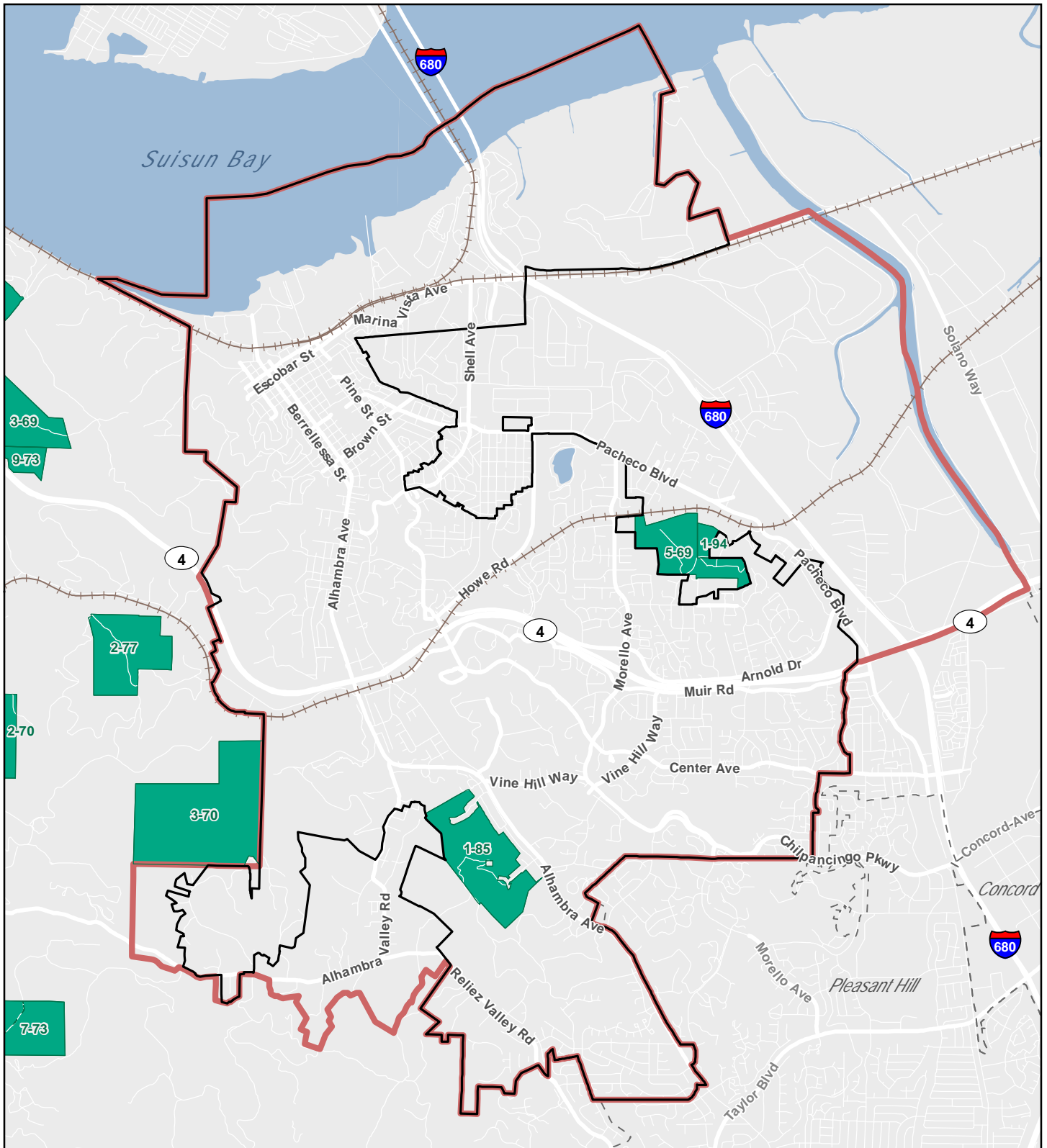


CITY OF MARTINEZ

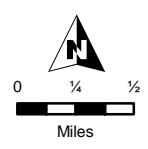
Figure 4.2-1. Important Farmlands

Sources: California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) 2018; California State Geportal; Contra Costa County GIS. Map date: May 5, 2022.

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- Legend**
- Martinez City Limits
 - Martinez Sphere of Influence
 - Other Incorporated Areas
 - Active Williamson Act Contract
(labeled by contract number)



CITY OF MARTINEZ

Figure 4.2-2. Williamson Act Lands

Sources: Contra Costa County Department of Conservation and Development, 2016 Agricultural Preserves Map, February 1, 2017; California State Geoportal; Contra Costa County GIS. Map date: May 5, 2022.

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This section describes the regional air quality, current attainment status of the air basin, local sensitive receptors, emission sources, and air quality impacts that are likely to result from implementation of the General Plan Update.

During the NOP comment period, one comment letter was received regarding air quality. In summary, the comment letter identified areas to be considered in the air quality analysis, including local and regional air quality, consistency with the Air District's Clean Air Act, opportunities to minimize air pollutant emissions, and environmental justice issues, and referenced available tools and resources provided on the Air District's CEQA website. All comments received during the 30-day NOP comment period are included within Appendix A.

The primary sources of data referenced for this section are derived from the following:

- Association of Bay Area Governments, Metropolitan Transportation Commission, 2021. Draft Plan Bay Area Environmental Impact Report. State Clearinghouse No. 2020090519. June.
- Bay Area Air Quality Management District. 2017. Bay Area 2017 Clean Air Plan. Adopted April 19, 2017.
- Bay Area Air Quality Management District, 2017. CEQA Air Quality Guidelines. May.
- Bay Area Air Quality Management District. 2022a. Community Air Risk Evaluation Program. April 15.
- Bay Area Air Quality Management District. 2022b. Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans. April.
- Bay Area Air Quality Management District. 2022c. Stationary Source Screening Map.
- Metropolitan Transportation Commission, 2006. Bay Area Regional Rail Plan Technical Memorandum 4a: Conditions, Configuration & Traffic on Existing System. November 15.

4.3.1 ENVIRONMENTAL SETTING

The Bay Area Air Quality Management District (BAAQMD) is the regional air quality agency for the San Francisco Bay Area Air Basin (SFBAAB), which comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, the southern portion of Sonoma, and the southwestern portion of Solano County. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions. These factors along with applicable regulations are discussed below.

CLIMATE, TOPOGRAPHY, AIR POLLUTION POTENTIAL

The Bay Area region has a Mediterranean climate characterized by wet winters and dry summers. Rainfall totals can vary widely over a short distance, with windward coastal mountain areas receiving over 40 inches of rain, while leeward areas receive about 15 inches. During rainy periods, horizontal and vertical air movements ensure rapid pollutant dispersal. Rain can also wash out particulates and other pollutants.

Typically, air temperatures decrease with increasing elevations. Sometimes this pattern is inverted, with warmer air aloft and cool air trapped near the earth's surface. This phenomenon occurs in all seasons. Especially in summer, when wind speeds are very low, a strong inversion will trap air emissions, and high levels of ozone smog can occur. In winter, a strong inversion can trap emissions of particulates and carbon monoxide near the surface, resulting in unhealthy air quality. Particulate matter (PM) pollution is anticipated to increase because of climate change, which can lead to worsening asthma symptoms, chronic obstructive pulmonary disease, and respiratory infections associated to premature mortality. Increasing temperatures related to climate change are also anticipated to lead to an increase in wildfires across California. Wildfires are a significant source of smoke and PM exposure. PM can also be carried over long distances by wind and then settle on ground or water. Depending on chemical composition, the effects of PM settling may include: making lakes and streams acidic, changing the nutrient balance in coastal waters and large river basins, depleting the nutrients in soil, damaging sensitive forests and farm crops and affecting the diversity of ecosystems, contributing to acid rain effects.

The SFBAAB topography is complex, consisting of coastal mountain ranges, inland valleys, and bays, which distort normal wind flow patterns. The Pacific Ocean bounds the area to the west with warmer inland valleys to the south and east. The only major break in California's Coast Ranges occurs at San Francisco Bay. The gap on the western side is called the Golden Gate and on the eastern side, it is called the Carquinez Strait. These gaps allow air to pass between the Central Valley and the Pacific Ocean. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific, resulting in mild climate tempered by cool sea breezes with light average wind speeds. The usually mild climatological pattern is interrupted occasionally by periods of extremely hot weather, winter storms, and offshore winds (ABAG 2021).

During the summer, winds flowing from the northwest are drawn inland through the Golden Gate and over the lower portions of the San Francisco Peninsula. Immediately south of Mount Tamalpais, the northwesterly winds accelerate considerably and come more directly from the west as they stream through the Golden Gate. This channeling of wind through the Golden Gate produces a jet that sweeps eastward and splits off to the northwest toward Richmond and to the southwest toward San Jose when it meets the East Bay hills.

Wind speeds may be strong locally in areas where air is channeled through a narrow opening, such as the Carquinez Strait, the Golden Gate or the San Bruno gap. For example, the average wind speed at San Francisco International Airport in July is about 17 knots (from 3 to 4 PM), compared with only 7 knots at San Jose and less than 6 knots at the Farallon Islands.

The air flowing in from the coast to the Central Valley, called the sea breeze, begins developing at or near ground level along the coast in late morning or early afternoon. As the day progresses, the sea breeze layer deepens and increases in velocity while spreading inland. The depth of the sea breeze depends in large part upon the height and strength of the inversion. If the inversion is low and strong, and hence stable, the flow of the sea breeze will be inhibited and stagnant conditions are likely to result.

In the winter, the SFBAAB frequently experiences stormy conditions with moderate to strong winds, as well as periods of stagnation with very light winds. Winter stagnation episodes are characterized by nighttime drainage flows in coastal valleys. Drainage is a reversal of the usual daytime air-flow patterns; air moves from the Central Valley toward the coast and back down toward the Bay from the smaller valleys within the SFBAAB.

Summertime temperatures in the SFBAAB are determined in large part by the effect of differential heating between land and water surfaces. Because land tends to heat up and cool off more quickly than water, a large-scale gradient (differential) in temperature is often created between the coast and the Central Valley, and small-scale local gradients are often produced along the shorelines of the ocean and bays. The temperature gradient near the ocean is also exaggerated, especially in summer, because of the upwelling of cold ocean bottom water along the coast. On summer afternoons the temperatures at the coast can be 35°F cooler than temperatures 15 to 20 miles inland. At night this contrast usually decreases to less than 10°F .

In the winter, the relationship of minimum and maximum temperatures is reversed. During the daytime the temperature contrast between the coast and inland areas is small, whereas at night the variation in temperature is large.

The potential for high pollutant concentrations developing at a given location depends upon the quantity of pollutants emitted into the atmosphere in the surrounding area or upwind, and the ability of the atmosphere to disperse the contaminated air. The topographic and climatological factors discussed above influence the atmospheric pollution potential of an area. Atmospheric pollution potential, as the term is used here, is independent of the location of emission sources and is instead a function of factors described below.

Although air pollution potential is strongly influenced by climate and topography, the air pollution that occurs in a location also depends upon the amount of air pollutant emissions in the surrounding area or transported from more distant places. Air pollutant emissions generally are highest in areas that have high population densities, high motor vehicle use and/or industrialization. These contaminants created by photochemical processes in the atmosphere, such as ozone, may result in high concentrations many miles downwind from the sources of their precursor chemicals.

Carquinez Strait Climatological Subregion

There are 11 climatological subregions within the SFBAAB. Martinez is located within the Carquinez Strait subregion. The Carquinez Strait runs from Rodeo to Martinez. It is the only sea-level gap between the Bay and the Central Valley. The subregion includes the lowlands bordering the strait to the north and south, and includes the area adjoining Suisun Bay and the western part of the Sacramento-San Joaquin Delta as far east as Bethel Island. The subregion extends from Rodeo in the southwest and Vallejo in the northwest to Fairfield on the northeast and Brentwood on the southeast.

Prevailing winds are from the west in the Carquinez Strait. During the summer and fall months, high pressure offshore coupled with low pressure in the Central Valley causes marine air to flow eastward through the Carquinez Strait. The wind is strongest in the afternoon. Afternoon wind speeds of 15

to 20 mph are common throughout the subregion. Annual average wind speeds are 8 mph in Martinez, and 9 to 10 mph further east. Sometimes atmospheric conditions cause air to flow from the east. East winds usually contain more pollutants than the cleaner marine air from the west. In the summer and fall months, this can cause elevated pollutant levels to move into the central SFBAAB through the strait. These high-pressure periods are usually accompanied by low wind speeds, shallow mixing depths, higher temperatures, and little or no rainfall.

Summer average maximum temperatures reach about 90°F in the subregion. Average minimum temperatures in the winter are in the high 30s. Temperature extremes are especially pronounced in sheltered areas farther from the moderating effects of the strait itself (e.g., in Fairfield).

Many industrial facilities with significant air pollutant emissions — e.g., chemical plants and refineries — are located within the Carquinez Strait subregion. The pollution potential of this area is often moderated by high wind speeds. However, upsets at industrial facilities can lead to short-term pollution episodes, and emissions of unpleasant odors may occur at any time. Receptors downwind of these facilities could suffer more long-term exposure to air contaminants than individuals elsewhere. Areas of the subregion that are traversed by major roadways (e.g., Interstate 80), may also be subject to higher local concentrations of carbon monoxide and particulate matter, as well as certain toxic air contaminants such as benzene.

EXISTING AMBIENT AIR QUALITY: CRITERIA AIR POLLUTANTS

The California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (EPA) currently focus on the following air pollutants as indicators of ambient air quality: ozone, particulate matter (PM), nitrogen dioxide (NO₂), CO, sulfur dioxide (SO₂), and lead. Because these are the most prevalent air pollutants known to be harmful to human health, they are commonly referred to as “criteria air pollutants.” Sources and health effects of the criteria air pollutants are summarized in Table 4.3-1.

TABLE 4.3-1: COMMON SOURCES OF HEALTH EFFECTS FOR CRITERIA AIR POLLUTANTS

Pollutants	Sources	Health Effects
Ozone	Atmospheric reaction of organic gases with nitrogen oxides in sunlight	Aggravation of respiratory and cardiovascular diseases; reduced lung function; increased cough and chest discomfort; heart attacks; premature mortality
Fine Particulate Matter (PM ₁₀ and PM _{2.5})	Stationary combustion of solid fuels; construction activities; industrial processes; atmospheric chemical reactions	Reduced lung function; aggravation of respiratory and cardiovascular diseases; increased blood pressure; premature mortality
Nitrogen Dioxide (NO ₂)	Motor vehicle exhaust; high temperature stationary combustion; atmospheric reactions	Aggravation of respiratory illness
Carbon Monoxide (CO)	Incomplete combustion of fuels and other carbon-containing substances, such as motor vehicle exhaust; natural events, such as decomposition of organic matter	Aggravation of some heart diseases; reduced tolerance for exercise; impairment of mental function; birth defects; death at high levels of exposure
Sulfur Dioxide (SO ₂)	Combination of sulfur-containing fossil fuels; smelting of sulfur-bearing metal ore; industrial processes	Aggravation of respiratory diseases; reduced lung function
Lead	Contaminated soil	Behavioral and hearing disabilities in children; nervous system impairment

SOURCE: BAY AREA AIR QUALITY MANAGEMENT DISTRICT, 2012, 2017.

Ozone, or smog, is not emitted directly into the environment, but is formed in the atmosphere by complex chemical reactions between reactive organic gases (ROG) and oxides of nitrogen (NOx) in the presence of sunlight. Exposure to ozone can damage the lungs and aggravate respiratory conditions such as asthma, bronchitis, and emphysema. Motor vehicles and industrial sources are the largest sources of ozone precursors in the Bay Area. Emissions of ozone precursors have been greatly reduced in recent decades. As a result, Bay Area ozone levels and population exposure to harmful levels of smog have decreased substantially. Despite this progress, the Bay Area has not yet fully attained State and federal ozone standards. This is primarily due to the progressively tightened federal ozone standard, but also to the amount of population and economic growth occurring within the Bay Area.

Particulate Matter refers to a wide range of solid or liquid particles in the atmosphere, including smoke, dust, aerosols, and metallic oxides. Respirable particulate matter with an aerodynamic diameter of 10 micrometers or less is referred to as PM₁₀. PM₁₀ is primarily composed of large particles from sources such as road dust, residential wood burning, construction/demolition activities, and emissions from on- and off-road engines. PM_{2.5} includes a subgroup of finer particles that have an aerodynamic diameter of 2.5 micrometers or less. Some particulate matter, such as pollen, is naturally occurring. In the SFBAAB most particulate matter is caused by combustion, factories, construction, grading, demolition, agricultural activities, and motor vehicles. Extended exposure to particulate matter can increase the risk of chronic respiratory disease. PM₁₀ is of concern because it bypasses the body's natural filtration system more easily than larger particles,

and can lodge deep in the lungs. PM_{2.5} poses an increased health risk because the particles can deposit deep in the lungs and contain substances that are particularly harmful to human health. Motor vehicles are currently responsible for about half of particulates in the SFBAAB. Wood burning in fireplaces and stoves is another large source of fine particulates.

Nitrogen Dioxide (NO₂) is a reddish-brown gas that is a by-product of combustion processes. Automobiles and industrial operations are the main sources of NO₂. Aside from its contribution to ozone formation, nitrogen dioxide can increase the risk of acute and chronic respiratory disease and reduce visibility. NO₂ may be visible as a coloring component of a brown cloud on high pollution days, especially in conjunction with high ozone levels. Most of the Bay Area's NO₂ comes from on-road motor vehicles. Since the year 2010, the Bay Area has had three exceedances of the national NO₂ standard in 2012, 2015, and 2017 (ABAG 2021).

Carbon Monoxide (CO) is an odorless, colorless gas. It is formed by the incomplete combustion of fuels. The single largest source of CO in the SFBAAB is motor vehicles. Emissions are highest during cold starts, hard acceleration, stop-and-go driving, and when a vehicle is moving at low speeds. Findings indicate that CO emissions per mile are lowest at about 45 mph for the average light-duty motor vehicle and begin to increase again at higher speeds. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia, as well as fetuses. Even healthy people exposed to high CO concentrations can experience headaches, dizziness, fatigue, unconsciousness, and even death.

Sulfur Dioxide (SO₂) is a colorless acid gas with a pungent odor. It has potential to damage materials and it can have health effects at high concentrations. It is produced by the combustion of sulfur-containing fuels, such as oil, coal, and diesel. SO₂ can irritate lung tissue and increase the risk of acute and chronic respiratory disease. Most of the Bay Area's SO₂ comes from petroleum refineries. Despite these major sources, the overall concentration of SO₂ in the region is low. Over the past 10 years, the Bay Area has not experienced any exceedances of either the national or the State SO₂ standard (ABAG 2021).

Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phase-out of leaded gasoline, metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.

In the early 1970s, the EPA set national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The EPA banned the use of leaded gasoline in highway vehicles in December 1995. As a result of the EPA's regulatory efforts to remove lead from gasoline, emissions of lead from mobile sources decreased 89 percent between 1980 and 2010. In the Bay Area, aircraft exhaust and manufacturing are the major sources of lead emissions. Contact with lead-based paint in older buildings and demolition activities are also a health concern in the region (ABAG 2021).

Ambient Air Quality Standards and Designations

Both the EPA and the CARB have established ambient air quality standards for common pollutants. These ambient air quality standards represent safe levels of contaminants that avoid specific adverse health effects associated with each pollutant.

The federal and California State ambient air quality standards are summarized in Table 4.3-2 for important pollutants. The federal and State ambient standards were developed independently, although both processes attempted to avoid health-related effects. As a result, the federal and state standards differ in some cases. In general, the California State standards are more stringent. This is particularly true for ozone, PM_{2.5}, and PM₁₀.

The U.S. Environmental Protection Agency established new national air quality standards for ground-level ozone and for fine particulate matter in 1997. The 1-hour ozone standard was phased out and replaced by an 8-hour standard of 0.075 PPM. Implementation of the 8-hour standard was delayed by litigation, but was determined to be valid and enforceable by the U.S. Supreme Court in a decision issued in February of 2001. In April 2005, the Air Resources Board approved a new eight-hour standard of 0.070 ppm and retained the one-hour ozone standard of 0.09 after an extensive review of the scientific literature. The U.S. EPA signed a final rule for the federal ozone eight-hour standard of 0.070 ppm on October 1, 2015, and was effective as of December 28, 2015.

The current federal and State ambient air quality standards and attainment standards are presented in Table 4.3-2.

TABLE 4.3-2: FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	Federal Primary Standard	State Standard
Ozone	1-Hour	--	0.09 ppm
	8-Hour	0.070 ppm	0.070 ppm
Carbon Monoxide	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide	Annual	0.053 ppm	0.03 ppm
	1-Hour	0.100 ppm	0.18 ppm
Sulfur Dioxide	Annual	0.03 ppm	--
	24-Hour	0.14 ppm	0.04 ppm
	1-Hour	0.075 ppm	0.25 ppm
PM ₁₀	Annual	--	20 ug/m ³
	24-Hour	150 ug/m ³	50 ug/m ³
PM _{2.5}	Annual	12 ug/m ³	12 ug/m ³
	24-Hour	35 ug/m ³	--
Lead	30-Day Avg.	--	1.5 ug/m ³
	3-Month Avg.	0.15 ug/m ³	--

SOURCE: CALIFORNIA AIR RESOURCES BOARD, 2022A.

NOTES: PPM = PARTS PER MILLION, $\mu\text{G}/\text{M}^3$ = MICROGRAMS PER CUBIC METER

Monitoring Data

The BAAQMD operates a regional air quality monitoring network that regularly measures the concentrations of the five major criteria air pollutants. Air quality conditions in the SFBAAB have improved significantly since the BAAQMD was created in 1955. Ambient concentrations and the

4.3 AIR QUALITY

number of days on which the region exceeds standards have declined dramatically. Neither federal nor State ambient air quality standards have been violated in recent decades for nitrogen dioxide, sulfur dioxide, sulfates, lead, hydrogen sulfide, and vinyl chloride.

The CARB maintains air quality monitoring stations throughout California. Table 4.3-3 provides the aggregated statistics obtained from the monitoring sites in Contra Costa County between 2018 and 2020 for ozone (1-hour and 8-hour), PM₁₀, and PM_{2.5}.

TABLE 4.3-3: AMBIENT AIR QUALITY MONITORING DATA (SANTA CLARA COUNTY)

Pollutant	California	Federal	Year	Days Exceeded State/Federal Standard
	Primary Standard			
Ozone (O ₃) (1-hour)	0.09 ppm for 1 hour	NA	2020	2 / 0
			2019	2 / 0
			2018	0 / 0
Ozone (O ₃) (8-hour)	0.07 ppm for 8 hour	0.07 ppm for 8 hour	2020	5 / 5
			2019	3 / 3
			2018	2 / 2
Particulate Matter (PM ₁₀)	50 ug/m ³ for 24 hours	150 ug/m ³ for 24 hours	2020	* / 11.5
			2019	* / 0
			2018	11.5 / 0
Fine Particulate Matter (PM _{2.5})	No 24 hour State Standard	35 ug/33 for 24 hours	2020	16.2 / 16.2
			2019	1.1 / 1.1
			2018	14.4 / 14.4

SOURCE: CALIFORNIA AIR RESOURCES BOARD (ADAM) AIR POLLUTION SUMMARIES, 2022B.
[HTTP://WWW.ARB.CA.GOV/ADAM/WELCOME.HTML](http://www.arb.ca.gov/adam/welcome.html).

NOTES: PPM = PARTS PER MILLION; UG/M³ = MICRONS PER CUBIC METER; NA= NOT APPLICABLE

* = THERE WAS INSUFFICIENT (OR NO) DATA AVAILABLE TO DETERMINE THE VALUE

PM₁₀ DATA WAS NOT AVAILABLE UNDER COUNTY SUMMARY; PM₁₀ DATA WAS TAKEN FROM THE CONCORD-2975 TREAT BOULEVARD MONITORING SITE

Emissions Inventory

The BAAQMD estimates emissions of criteria air pollutants from approximately nine hundred source categories. The estimates are based on BAAQMD permit information for stationary sources (e.g., manufacturing industries, refineries, dry-cleaning operations), plus more generalized estimates for area sources (e.g., space heating, landscaping activities, use of consumer products) and mobile sources (e.g., trains, ships and planes, as well as on-road and off-road motor vehicles).

EXISTING AMBIENT AIR QUALITY: TOXIC AIR CONTAMINANTS

In addition to the criteria air pollutants listed above, another group of pollutants, commonly referred to as toxic air contaminants (TACs) or hazardous air pollutants can result in health effects that can be quite severe. Many TACs are confirmed or suspected carcinogens or are known or suspected to cause birth defects or neurological damage. Additionally, many TACs can be toxic at very low concentrations. For some chemicals, such as carcinogens, there are no thresholds below which exposure can be considered risk-free.

Industrial facilities and mobile sources are significant sources of TACs; however, there are additional sources of TACs beyond these sources. Various common urban facilities also produce TAC emissions, such as gasoline stations (benzene), hospitals (ethylene oxide), and dry cleaners (perchloroethylene). Automobile exhaust also contains TACs such as benzene and 1,3-butadiene. Diesel particulate matter (PM) has also been identified as a TAC by CARB. Diesel PM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. BAAQMD research indicates that mobile-source emissions of diesel PM, benzene, and 1,3-butadiene represent a substantial portion of the ambient background risk from TACs in the SFBAAB.

Sensitive receptors, which include children, the sick, and the elderly, may be especially impacted by TACs. Health risks from diesel PM are highest in areas of concentrated emissions, such as near ports, rail yards, freeways, or warehouse distribution centers. According to CARB, diesel engine emissions are responsible for the majority of California's known cancer risk from outdoor air pollutants. Those most vulnerable are children, whose lungs are still developing, and the elderly, who may have other serious health problems. Based on numerous studies, CARB has also stated that diesel PM is a contributing factor for premature death from heart and/or lung diseases. In addition, diesel PM reduces visibility and is a strong absorber of solar radiation that contributes to global warming.

According to CARB, levels of toxic air pollutants have decreased significantly with the adoption of airborne toxic control measures, stringent vehicle standards, requirements for low-emission vehicles, and cleaner fuels. As a result of these measures, more than 30,000 facilities in California have reduced their toxic emissions. This has led to the reduction of ambient cancer risk in California by about 80 percent since 1990. Several communities also have established community emission reduction plans that outline actions that stationary facilities and mobile sources can take to further reduce harmful air pollutants.

BAAQMD's Community Air Risk Evaluation (CARE) Program, initiated in 2004, works extensively with local governments, communities, and businesses to reduce air pollution and adverse health outcomes in disproportionately affected areas within the Bay Area. Periodically, the CARE Program identifies affected areas by overlaying maps that combine emissions, estimated cancer risks, predicted PM_{2.5} concentrations, and health outcome data.

The CARE program has brought together government, communities, and business in an effort to understand and address localized areas of elevated air pollution and adverse health impacts. While improvements in air quality continue to occur throughout the Bay Area, levels of air pollution and their impacts vary from location to location. Air pollution levels of many pollutants are highest in close proximity to pollution sources, such as near freeways, busy roadways, busy distribution centers, and large industrial sources. Communities where these types of sources are concentrated often have areas within them where air pollution is relatively high and corresponding health impacts are greater.

In addition to tracking regional criteria pollution levels as measured at central monitoring sites, and in addition to tracking TAC pollution levels from individual permitted facilities, BAAQMD tracks the cumulative impacts of exposures to multiple pollutants and multiple sources in the neighborhoods

where people live. With the shift toward more consideration of cumulative air pollution exposures, BAAQMD's staff continues to evaluate the health status of Bay Area residents and how health status affects vulnerability to air pollution. This gradual shift will continue to require closer collaboration between BAAQMD and the region's health departments and health professionals and researchers. By exploring the links between air pollution exposures and community health status, the CARE Program will continue to help focus BAAQMD's resources to achieve the greatest health benefits (ABAG 2021).

ODORS

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another.

It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air.

When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

SENSITIVE RECEPTORS

Sensitive receptors are considered land uses or other types of population groups that are more sensitive to air pollution than others due to their exposure. Sensitive population groups include children, the elderly, the acutely and chronically ill, and those with cardio-respiratory diseases. For CEQA purposes, a sensitive receptor would be a location where a sensitive individual could remain for 24-hours or longer, such as residences, hospitals, and schools (etc.).

As a planning document, the General Plan Update identifies Land Use Designations within the Study Area, which specify the type of allowed uses associated with each designation. However, site-specific development is not proposed. Martinez has numerous sensitive land uses, in particular, residential communities. These sensitive land uses would continue to exist and new sensitive land uses are anticipated to occur within implementation of the General Plan Update. As a conservative estimate of impacts, sensitive receptors are anticipated to be located directly adjacent to new development.

4.3.2 REGULATORY SETTING

Air quality with respect to criteria air pollutants and TACs within the SFBAAB is regulated by such agencies as the BAAQMD, CARB, and the EPA. Each of these agencies develops rules, regulations, policies, and/or goals to attain the goals or directives imposed through legislation. Although the EPA regulations may not be superseded, both State and local regulations may be more stringent.

FEDERAL AIR QUALITY REGULATIONS

Clean Air Act

The Federal Clean Air Act (FCAA) was first signed into law in 1970. In 1977, and again in 1990, the law was substantially amended. The FCAA is the foundation for a national air pollution control effort, and it is composed of the following basic elements: NAAQS for criteria air pollutants, hazardous air pollutant standards, State attainment plans, motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

The EPA is responsible for administering the FCAA. The FCAA requires the EPA to set NAAQS for several problem air pollutants based on human health and welfare criteria. Two types of NAAQS were established: primary standards, which protect public health (with an adequate margin of safety, including for sensitive populations such as children, the elderly, and individuals suffering from respiratory diseases), and secondary standards, which protect the public welfare from non-health-related adverse effects such as visibility reduction.

NAAQS standards define clean air and represent the maximum amount of pollution that can be present in outdoor air without any harmful effects on people and the environment. Existing violations of the ozone and PM_{2.5} ambient air quality standards indicate that certain individuals exposed to these pollutants may experience certain health effects, including increased incidence of cardiovascular and respiratory ailments.

NAAQS standards have been designed to accurately reflect the latest scientific knowledge and are reviewed every five years by a Clean Air Scientific Advisory Committee (CASAC), consisting of seven members appointed by the EPA administrator. Reviewing NAAQS is a lengthy undertaking and includes the following major phases: Planning, Integrated Science Assessment (ISA), Risk/Exposure Assessment (REA), Policy Assessment (PA), and Rulemaking. The process starts with a comprehensive review of the relevant scientific literature. The literature is summarized and conclusions are presented in the ISA. Based on the ISA, EPA staff perform a risk and exposure

assessment, which is summarized in the REA document. The third document, the PA, integrates the findings and conclusions of the ISA and REA into a policy context, and provides lines of reasoning that could be used to support retention or revision of the existing NAAQS, as well as several alternative standards that could be supported by the review findings. Each of these three documents is released for public comment and public peer review by CASAC. Members of CASAC are appointed by the EPA Administrator for their expertise in one or more of the subject areas covered in the ISA. The committee's role is to peer review the NAAQS documents, ensure that they reflect the thinking of the scientific community, and advise the Administrator on the technical and scientific aspects of standard setting. Each document goes through two to three drafts before CASAC deems it to be final.

Although there is some variability among the health effects of the NAAQS pollutants, each has been linked to multiple adverse health effects including, among others, premature death, hospitalizations, and emergency department visits for exacerbated chronic disease, and increased symptoms such as coughing and wheezing. NAAQS standards were last revised for each of the six criteria pollutants as listed below, with detail on what aspects of NAAQS changed during the most recent update:

- Ozone: On October 1, 2015, the EPA lowered the national eight-hour standard from 0.075 ppm to 0.070 ppm, providing for a more stringent standard consistent with the current California State standard.
- CO: In 2011, the primary standards were retained from the original 1971 level, without revision. The secondary standards were revoked in 1985.
- NO₂: The national NO₂ standard was most recently revised in 2010 following an exhaustive review of new literature pointed to evidence for adverse effects in asthmatics at lower NO₂ concentrations than the existing national standard.
- SO₂: On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb.
- PM: the national annual average PM_{2.5} standard was most recently revised in 2012 following an exhaustive review of new literature pointed to evidence for increased risk of premature mortality at lower PM_{2.5} concentrations than the existing standard.
- Lead: The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. In 2016, the primary and secondary standards were retained.

The law recognizes the importance for each state to locally carry out the requirements of the FCAA, as special consideration of local industries, geography, housing patterns, etc., are needed to have full comprehension of the local pollution control problems. As a result, the EPA requires each state to develop a State Implementation Plan (SIP) that explains how each state will implement the FCAA within their jurisdiction. A SIP is a collection of rules and regulations that a particular state will implement to control air quality within their jurisdiction. The CARB is the State agency that is responsible for preparing and implementing the California SIP.

Transportation Conformity

Transportation conformity requirements were added to the FCAA in the 1990 amendments, and the EPA adopted implementing regulations in 1997. See Section 176 of the FCAA (42 U.S.C. Section 7506) and 40 CFR Part 93, Subpart A. Transportation conformity serves much the same purpose as general conformity: it ensures that transportation plans, transportation improvement programs, and projects that are developed, funded, or approved by the United States Department of Transportation or that are recipients of funds under the Federal Transit Act or from the Federal Highway Administration (FHWA), conform to the SIP as approved or promulgated by EPA.

Currently, transportation conformity applies in nonattainment areas and maintenance areas (maintenance areas are those areas that were in nonattainment that have been redesignated to attainment, under the FCCA). Under transportation conformity, a determination of conformity with the applicable SIP must be made by the agency responsible for the project, such as the Metropolitan Planning Organization, the Council of Governments, or a federal agency. The agency making the determination is also responsible for all the requirements relating to public participation. Generally, a project will be considered in conformance if it is in the transportation improvement plan and the transportation improvement plan is incorporated in the SIP. If an action is covered under transportation conformity, it does not need to be separately evaluated under general conformity.

Transportation Control Measures

One particular aspect of the SIP development process is the consideration of potential control measures as a part of making progress towards clean air goals. While most SIP control measures are aimed at reducing emissions from stationary sources, some are typically also created to address mobile or transportation sources. These are known as transportation control measures (TCMs). TCM strategies are designed to reduce vehicle miles traveled and trips, or vehicle idling and associated air pollution. These goals are achieved by developing attractive and convenient alternatives to single-occupant vehicle use. Examples of TCMs include ridesharing programs, transportation infrastructure improvements such as adding bicycle and carpool lanes, and expansion of public transit.

STATE AIR QUALITY REGULATIONS

California Clean Air Act

The California Clean Air Act (CCAA) was first signed into law in 1988. The CCAA provides a comprehensive framework for air quality planning and regulation, and spells out, in statute, the State's air quality goals, planning and regulatory strategies, and performance. CARB is the agency responsible for administering the CCAA. CARB established ambient air quality standards pursuant to the California Health and Safety Code (CH&SC) [Section 39606(b)], which are similar to the federal standards.

California Air Quality Standards

Although NAAQS are determined by the EPA, states have the ability to set standards that are more stringent than the federal standards. As such, California established more stringent ambient air

quality standards. Federal and State ambient air quality standards have been established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulates (PM₁₀), and lead. In addition, California has created standards for pollutants that are not covered by federal standards. Although there is some variability among the health effects of the CAAQS pollutants, each has been linked to multiple adverse health effects including, among others, premature death, hospitalizations, and emergency department visits for exacerbated chronic disease, and increased symptoms such as coughing and wheezing. The existing State and federal primary standards for major pollutants are shown in Table 4.3-2.

Air quality standard setting in California commences with a critical review of all relevant peer reviewed scientific literature. The Office of Environmental Health Hazard Assessment (OEHHA) uses the review of health literature to develop a recommendation for the standard. The recommendation can be for no change, or can recommend a new standard. The review, including the OEHHA recommendation, is summarized in a document called the draft Initial Statement of Reasons (ISOR), which is released for comment by the public, and also for public peer review by the Air Quality Advisory Committee (AQAC). AQAC members are appointed by the President of the University of California for their expertise in the range of subjects covered in the ISOR, including health, exposure, air quality monitoring, atmospheric chemistry and physics, and effects on plants, trees, materials, and ecosystems. The Committee provides written comments on the draft ISOR. CARB staff next revises the ISOR based on comments from AQAC and the public. The revised ISOR is then released for a 45-day public comment period prior to consideration by the Board at a regularly scheduled Board hearing.

In June of 2002, CARB adopted revisions to the PM₁₀ standard and established a new PM_{2.5} annual standard. The new standards became effective in June 2003. Subsequently, staff reviewed the published scientific literature on ground-level ozone and nitrogen dioxide and CARB adopted revisions to the standards for these two pollutants. Revised standards for ozone and nitrogen dioxide went into effect on May 17, 2006 and March 20, 2008, respectively. These revisions reflect the most recent changes to the CAAQS.

CARB Mobile-Source Regulations

The State of California is responsible for controlling emissions from the operation of motor vehicles in the State. Rather than mandating the use of specific technology or the reliance on a specific fuel, CARB's motor vehicle standards specify the allowable grams of pollution per mile driven. In other words, the regulations focus on the reductions needed rather than on the manner in which they are achieved. Towards this end, CARB has adopted regulations which required auto manufacturers to phase in less polluting vehicles.

CARB Air Quality and Land Use Handbook

CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* addresses the importance of considering health risk issues when siting sensitive land uses, including residential development, in the vicinity of intensive air pollutant emission sources including freeways or high-traffic roads, distribution centers, ports, petroleum refineries, chrome plating operations, dry cleaners, and gasoline dispensing facilities. The CARB Handbook draws upon studies evaluating the

health effects of traffic traveling on major interstate highways in metropolitan California centers within Los Angeles (Interstate [I] 405 and I-710), the San Francisco Bay, and San Diego areas. The recommendations identified by CARB, including siting residential uses a minimum distance of 500 feet from freeways or other high-traffic roadways, are consistent with those adopted by the State of California for location of new schools. Specifically, the CARB Handbook recommends, “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.”

Tanner Air Toxics Act

California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and has adopted EPA’s list of HAPs as TACs. Most recently, diesel PM was added to the CARB list of TACs. Once a TAC is identified, CARB then adopts an Airborne Toxics Control Measure (ATCM) for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate Best Available Control Technology (BACT) to minimize emissions.

AB 2588 requires that existing facilities that emit toxic substances above a specified level prepare a toxic-emission inventory, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures. CARB has adopted diesel exhaust control measures and more stringent emission standards for various on-road mobile sources of emissions, including transit buses and off-road diesel equipment (e.g., tractors, generators). In February 2000, CARB adopted a new public-transit bus-fleet rule and emission standards for new urban buses. These rules and standards provide for (1) more stringent emission standards for some new urban bus engines, beginning with 2002 model year engines; (2) zero-emission bus demonstration and purchase requirements applicable to transit agencies; and (3) reporting requirements under which transit agencies must demonstrate compliance with the urban transit bus fleet rule. Other recent milestones include the low-sulfur diesel-fuel requirement, and tighter emission standards for heavy-duty diesel trucks (2007) and off-road diesel equipment (2011) nationwide.

REGIONAL AND LOCAL AIR QUALITY REGULATIONS

Bay Area Air Quality Management District (BAAQMD)

The BAAQMD attains and maintains air quality conditions in the SFBAAB through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of the BAAQMD includes the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, and issuance of permits for stationary sources of air pollution. The BAAQMD also inspects stationary sources of air pollution and responds to citizen

complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by the FCAA and the CCAA. For State air quality purposes, the Bay Area is classified as a serious nonattainment area of the 1-hour ozone standard. The “serious” classification triggers various plan submittal requirements and transportation performance standards. One such requirement is that the Bay Area update the Clean Air Plan every three years to reflect progress in meeting the air quality standards and to incorporate new information regarding the feasibility of control measures and new emission inventory data.

The *2017 Clean Air Plan: Spare the Air, Cool the Climate* (2017 Clean Air Plan) was adopted on April 19, 2019 by BAAQMD in cooperation with the Metropolitan Transportation Commission, the San Francisco Bay Conservation and Development Commission, and the Associate of Bay Area Governments (ABAG). The 2017 Clean Air Plan describes a multi-pollutant strategy to simultaneously reduce emissions and ambient concentrations of ozone, fine particulate matter, toxic air contaminants, as well as greenhouse gases that contribute to climate change. The 2017 Clean Plan provides a regional strategy to protect public health and protect the climate. To protect public health, the 2017 Clean Plan describes how BAAQMD will continue 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 2017 Clean Air 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.

The 2017 Clean Air Plan includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants; to reduce emissions of methane and other “super-GHGs” that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

BAAQMD adopts rules and regulations and all projects are subject to BAAQMD’s rules and regulations in effect at the time of construction. Specific rules applicable to site-specific project construction and operation may include, but are not limited to:

- Regulation 2, Rule 1, General Permit requirements. This rule includes criteria for issuance or denial of permits, exemptions, appeals against decisions of the air pollution control officer, and BAAQMD actions on applications.
- Regulation 2, Rule 2, New Source Review. This rule applies to new or modified sources and contains requirements for best available control technology (BACT) and emission offsets. Rule 2 implements federal New Source Review and Prevention of Significant Deterioration requirements.
- Regulation 6, Rule 1, General Requirements. Regulation 6 limits the quantity of PM in the atmosphere by controlling emission rates, concentration, visible emissions, and opacity.
- Regulation 7, Odorous Substances. Regulation 7 places general limitation on certain odorous compounds.

- Regulation 8, Rule 3, Architectural Coatings. This rule limits the quantity of volatile organic compounds in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within BAAQMD's jurisdiction.

BAAQMD CEQA Guidelines

The BAAQMD CEQA Air Quality Guidelines were prepared to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process consistent with CEQA requirements including thresholds of significance, mitigation measures, and background air quality information. They also include assessment methodologies for air toxics, odors, and greenhouse gas emissions. In June 2010, the BAAQMD's Board of Directors adopted CEQA thresholds of significance and an update of their CEQA Guidelines. In May 2011, the updated BAAQMD CEQA Air Quality Guidelines were amended to include a risk and hazards threshold for new receptors and modify procedures for assessing impacts related to risk and hazard impacts.

The thresholds were challenged in court. Following litigation in the trial court, the court of appeal, and the California Supreme Court, all of the thresholds were upheld. However, in an opinion issued on December 17, 2015, the California Supreme Court held that CEQA does not generally require an analysis of the impacts of locating development in areas subject to environmental hazards unless the project would exacerbate existing environmental hazards. The Supreme Court also found that CEQA requires the analysis of exposing people to environmental hazards in specific circumstances, including the location of development near airports, schools near sources of toxic contamination, and certain exemptions for infill and workforce housing. The Supreme Court also held that public agencies remain free to conduct this analysis regardless of whether it is required by CEQA.

In view of the Supreme Court's opinion, local agencies may rely on thresholds designed to reflect the impact of locating development near areas of toxic air contamination where such an analysis is required by CEQA or where the agency has determined that such an analysis would assist in making a decision about the project. However, the thresholds are not mandatory and agencies should apply them only after determining that they reflect an appropriate measure of a project's impacts.

The Guidelines for implementation of the thresholds are for information purposes only to assist local agencies. Recommendations in the Guidelines are advisory and should be followed by local governments at their own discretion. These Guidelines may inform environmental review for development projects in the Bay Area, but do not commit local governments or the Air District to any specific course of regulatory action.

The Air District published a new version of the Guidelines dated May 2017, which includes revisions made to address the Supreme Court's opinion.

Association of Bay Area Governments and Metropolitan Transportation Commission Plan Bay Area 2050

Plan Bay Area 2050 was jointly adopted by the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) in October 2021 and is the region's Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS). Plan Bay Area 2050 is a long-range

regional plan for the nine-county San Francisco Bay Area, encompassing housing, economic, transportation, and environmental strategies designed to make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges.

Plan Bay Area 2050 is composed of 35 integrated strategies across the four elements that provide a blueprint for how the Bay Area can accommodate future growth and make the region more equitable and resilient in the face of unexpected challenges and achieve regional GHG emissions reduction targets established by CARB, pursuant to SB 375.

In summary, Plan Bay Area 2050:

- Details housing and economic strategies (“land use”) to invest \$702 billion in expected revenues to accommodate 2.7 million new persons, 1.4 million new households, 1.5 million new forecasted housing units, and 1.4 million new jobs between 2015 and 2050;
- Details transportation strategies to invest \$579 billion in expected revenues from federal, State, regional, and local sources over the next 30 years;
- Details environmental strategies to invest \$102 billion in expected revenues to protect the region from at least two feet of future permanent sea level rise inundation, reduce climate emissions, and maintain and expand the region’s parks and open space system; and
- Complies with Senate Bill (SB) 375, the State’s SCS law, which requires integration of land use and transportation planning to reduce per-capita passenger vehicle GHG emissions by 2035 and provide adequate housing for the region’s forecast of 2.7 million new persons and 1.4 million new households.

4.3.3 IMPACTS AND MITIGATION MEASURES

Long range plans (e.g., general plan, etc.) present unique challenges for assessing impacts because they contain development strategies for 20-year, or longer, time horizons. Due to the SFBAAB’s nonattainment status for ozone and PM, and the cumulative impacts of growth on air quality, these plans almost always have significant, unavoidable adverse air quality impacts. CEQA requires the lead agency to evaluate individual as well as cumulative impacts of general plans, and all feasible mitigation measures must be incorporated within the proposed plan to reduce significant air quality impacts.

The BAAQMD CEQA Guidelines provide guidance on how to evaluate air quality impacts associated with implementation of long-range plans prepared within the SFBAAB pursuant to CEQA. Air quality impacts from future development pursuant to general plans can be divided into construction-related impacts and operational-related impacts. Construction-related impacts are associated with construction activities likely to occur in conjunction with future development allocated by the plan. Operational-related impacts are associated with continued and future operation of developed land uses, including increased vehicle trips and energy use.

THRESHOLDS OF SIGNIFICANCE

Per Appendix G of the CEQA Guidelines and BAAQMD recommendations, air quality impacts are considered significant if implementation of the General Plan Update would:

- Conflict with or obstruct implementation of an applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

IMPACTS AND MITIGATION MEASURES

Impact 4.3-1: General Plan implementation would not conflict with or obstruct implementation of the applicable air quality plan (Less than Significant)

The BAAQMD is the regional agency responsible for overseeing compliance with State and federal laws, regulations, and programs within the SFBAAB. The BAAQMD, with assistance from ABAG and MTC, has prepared and implements specific plans to meet the applicable laws, regulations, and programs. The most recent and comprehensive of which is the Bay Area 2017 Clean Air Plan. The BAAQMD has also developed CEQA guidelines to assist lead agencies in evaluating the significance of air quality impacts. In formulating compliance strategies, BAAQMD relies on planned land uses established by local general plans. Land use planning affects vehicle travel, which in turn affects region-wide emissions of air pollutants and GHG.

CEQA requires lead agencies to determine whether a project is consistent with all applicable air quality plans. The BAAQMD's most current plan is the 2017 Clean Air Plan. The BAAQMD CEQA Guidelines recommend that lead agencies consider the following questions relative to this consistency determination:

1. Does the project support the primary goals of the of the 2017 Clean Air Plan?
2. Does the project include applicable control measures from the 2017 Clean Air Plan?
3. Does the project disrupt or hinder implementation of the 2017 Clean Air Plan control measures?

The primary goals of the 2017 Clean Air Plan are to protect public health and the climate. The 2017 Clean Air Plan contains 85 individual control measures that describe specific actions to reduce emissions of air and climate pollutants from the full range of emission sources. The control measures are categorized based upon the economic sector framework used by the Air Resources Board for the AB 32 Scoping Plan Update. These sectors include:

- Stationary (Industrial) Sources
- Transportation

4.3 AIR QUALITY

- Energy
- Buildings
- Agriculture
- Natural and Working Lands
- Waste Management
- Water
- Super-GHG Pollutants

The proposed General Plan Update proposes a land use plan and policy framework that are specifically aimed at improving air quality. The General Plan Land Use, Noise & Air Quality, Circulation, and Open Space & Conservation Elements contain policies and implementation measures that would reduce criteria pollutant emissions, odors, health risks, and other emissions, consistent with the issues recommended in the 2017 Clean Air Plan, as described further below. Subsequent development projects proposed within the Study Area would be subject to all relevant General Plan Update policies and implementation measures that provide protections for air quality.

Proposed policies and implementation measures are consistent with the intent of the control measures by promoting a compact urban development form, emphasizing infill development, and ensuring that land use patterns do not expose sensitive receptors to pollutant concentrations. Proposed General Plan Update Land Use Element Policy LU-P-2.1 supports land use patterns and mixed-use infill development in the City's Downtown Priority Development Area (PDA) that will attract and serve riders of public transit. Policy LU-P-2.2 supports the transformation of Downtown Martinez into a pedestrian-oriented commercial and mixed-use district with a mix of office, retail, government, high and mid-density residential, cultural, and entertainment land uses. Proposed General Plan Update Noise & Air Quality Element Implementation Measures NA-I-7.1a through NA-I-7.1f would require, in part, that future development of sensitive receptors within specific setback distances from sources of TACs and PM_{2.5} to prepare a site-specific analysis of exposure pursuant to BAAQMD procedures. Additionally future non-residential developments would be evaluated through the CEQA process or BAAQMD permit process to ensure they do not cause a significant health risk. Sites would be required to be designed to locate away from pollution sources and trees and/or vegetation would be required as a buffer between sensitive receptors and pollution sources.

Additionally, the Circulation Element includes a wide range of policies and implementation measures that would effectively reduce vehicle miles traveled per service population throughout the Study Area, through the use of complete streets and multi-modal transportation systems. These applicable policies and implementation measures are described in greater detail in Section 4.14 (Transportation and Circulation). Proposed General Plan Update Circulation Element Policy C-P-7.2 would design and implement "Complete Streets" that enable safe, comfortable and attractive access for all users – pedestrians, motorists, bicyclists, and transit riders of all ages and abilities – in a manner that is compatible with and complementary to adjacent development and promotes connectivity between complementary land uses. Implementation Measure C-I-5.1e would improve the existing street network to minimize travel times and improve mobility for transit, bicycle, and walking trips between new projects and surrounding land uses in an effort to reduce vehicle trips. Implementation Measure C-I-7.1a would implement land use policies designed to create a

development pattern that facilitates shopping, working, socializing, and recreation within walkable distances and Implementation Measure C-I-7.1b would encourage the development of a network of continuous walkways within new commercial, public, and industrial uses to improve employees' ability to walk safely around, to, and from their workplaces.

A primary goal of the 2017 Clean Air Plan is to address public health. The 2017 Clean Air Plan addresses public health through identifying control measures to maximize the reduction in population exposure to air pollutants and by including a category titled *Land Use and Local Impacts Measures* that is intended to address localized impacts of air pollution and to help local jurisdictions to pursue transit-oriented infill development in priority areas. As discussed above, the General Plan Update includes goals, policies, and implementation measures to support transit-oriented infill development. Additionally proposed goals, policies, and implementation measures in the Noise & Air Quality Element would ensure the siting of sensitive receptors with the potential for exposure to criteria pollutants and significant health risks are assessed at the project-level (Implementation Measures NA-I-7.1a and NA-I-7.1b). Thus, the proposed General Plan Update would be consistent with the 2017 Clean Air Plan's primary goal to address public health.

The 2017 Clean Air Plan's primary goal of protecting the climate is to reduce greenhouse gases. Greenhouse gases and General Plan Update applicable policies and implementation measures are discussed in greater detail in Section 4.7 (Greenhouse Gas Emissions, Climate Change & Energy). The General Plan Update Land Use and Transportation Elements provide for increased development potential in areas served by transit or with the opportunity for increased transit and within developed areas and areas anticipated for increased development potential, contributing toward the reduction in greenhouse gases. Land Use Element Policy LU-P-2.1 supports land use patterns and mixed-use infill development in the City's Downtown Priority Development Area (PDA) that will attract and serve riders of public transit. Policy LU-P-2.2 supports the transformation of Downtown Martinez into a pedestrian-oriented commercial and mixed-use district with a mix of office, retail, government, high and mid-density residential, cultural, and entertainment land uses. Circulation Element Implementation Measure C-I-10.1.f supports regional transit services and the use of transit by commuters to lower greenhouse gas production associated with single occupant vehicle commuting. Further the General Plan Update Goal NA-G-9 supports the reduction of greenhouse gas emissions to exceed or meet requirements of AB 32 and SB 375. Policy NA-P-9.1 would continue to maintain and improve a Climate Action Plan (CAP) that will outline strategies to achieve the City's goal to reduce greenhouse gas emissions. Proposed implementation measures including reviewing and adjusting City policies to be consistent with the CAP; updating the CAP to reflect GHG emissions, review target data and determine necessary revisions; and to the extent practical require new development projects to comply with greenhouse gas reductions strategies and programs in the CAP. Thus, the proposed General Plan Update would be consistent with the 2017 Clean Air Plan's primary goal of protecting the climate to reduce greenhouse gases.

If the proposed General Plan Update would cause the disruption, delay, or otherwise hinder the implementation of any air quality plan control measure, it may be inconsistent with the 2017 Clean Air Plan. The proposed General Plan Update does not cause the disruption, delay, or otherwise hinder the implementation of any quality plan control measure; therefore, it is consistent with the

2017 Clean Air Plan. The Study Area is surrounded by existing urbanized uses to the east of the Study Area, and is bisected by two of the most heavily-traveled highway corridors in the San Francisco Bay Area. The proposed General Plan Update emphasizes pedestrian-oriented neighborhoods, appropriately-scaled commercial areas with strong pedestrian and bicycle connections, and infill development within the Downtown with a commitment to develop more housing along with amenities and services to meet the day-to-day needs of residents in a pedestrian-friendly environment served by transit. The Land Use Plan and policies and implementation measures emphasize alternative transportation access and multi-modal connectivity throughout the Study Area and into the surrounding areas. The General Plan Update's proposed land use plan and policy framework would support the 2017 Clean Air Plan and provide for development that would support placement of land uses in proximity to each other and to transit; reduce vehicle trips; and address potential health-related impacts associated with new development, amongst others. All future development and infrastructure projects within the Study Area would be subject to the proposed General Plan Update goals, policies, and actions, which would contribute to the reduction of emissions and air quality impacts. Therefore, implementation of the proposed General Plan Update, which is consistent with all federal and State guidelines, would be consistent with the 2017 Clean Air Plan.

The BAAQMD's May 2017 CEQA Guidelines also identify thresholds of significance for criteria air pollutants and precursors for planning-level documents. As described in Section 2.7.1 of the 2017 CEQA Guidelines, proposed plans (except regional plans) must show the following over the planning period of the plan to result in a less than significant impact:

- Consistency with current air quality plan control measures.
- A proposed plan's projected vehicle miles traveled (VMT) or vehicle trips (VT) (either measure may be used) increase is less than or equal to its projected population increase.

The analysis provided above demonstrates that the proposed General Plan Update would be consistent with the current air quality plan control measures.

Annual vehicle miles traveled (VMT) for 2020 and buildout year 2040 was provided from the project traffic consultant; refer to Section 4.14 (Transportation and Circulation). Table 4.3-4 identifies the VMT and population for the General Plan Update. Using 2020 as a baseline year, residential VMT attributable to the General Plan Update is anticipated to increase approximately 4.0 percent, while the population would increase approximately 13.4 percent. As shown in Table 4.3-4, VMT per capita would decrease with implementation of the General Plan Update. As a result, the proposed General Plan Update's projected VMT increase would be less than the projected population increase and this impact would be less than significant.

TABLE 4.3-4: STUDY AREA VEHICLE MILES TRAVELED

Scenario	Population	Residential VMT	VMT Per Capita
Existing (2020)	43,418	702,986	16.2
Proposed General Plan (2040)	49,252	731,160	14.8
Proposed General Plan Difference	+5,834 (+13.4%)	+28,174 (+4.0%)	-1.4 (-8.6%)

SOURCE: KITTELSON & ASSOCIATES, 2022.

NOTE: POPULATION PROJECTIONS FOR PURPOSES OF VMT ARE CALCULATED UTILIZING TRAFFIC ANALYSIS ZONES (TAZs) WHICH DO NOT EXACTLY COINCIDE WITH THE STUDY AREA, AS DISCUSSED IN SECTION 4.14, TRANSPORTATION, AND DIFFER SLIGHTLY FROM THE POPULATION PROJECTION IDENTIFIED IN SECTION 2.0, PROJECT DESCRIPTION. WHILE THE HORIZON BUILDOUT YEAR FOR THE GENERAL PLAN UPDATE IS 2035, THE YEAR 2040 IS USED FOR ANALYSIS TO BE CONSISTENT WITH AVAILABLE TRAFFIC MODELING DATA.

The proposed General Plan Update would further the fundamental goals of the BAAQMD in reducing emissions of criteria pollutants associated with vehicle miles traveled by providing opportunities for pedestrian-oriented neighborhoods, appropriately-scaled commercial areas with strong pedestrian and bicycle connections, and infill development within the Downtown with a commitment to develop more housing along with amenities and services to meet the day-to-day needs of residents in a pedestrian-friendly environment served by transit. The Land Use Plan and policies and implementation measures emphasize alternative transportation access and multi-modal connectivity throughout the Study Area and into the surrounding areas. Implementation of the General Plan Update goals, policies, and implementation measures would minimize criteria pollutant emissions. For the reasons described above, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan and this impact is considered **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Land Use Element

Goals

- LU-G-1 Promote a balanced land use pattern, a mix of which enhances community character and serves the needs of existing and future residents. Encourage land use development to occur in an orderly fashion and in pace with the expansion of public facilities. Provide appropriate transitions between single family neighborhoods and higher intensity uses. Preserve open space and historic structures.
- LU-G-2 Preserve and strengthen the City's overall image and create development that enhances the existing character and preserves the natural resources, residential neighborhoods, commercial areas, and small-town historic character of Downtown Martinez to the maximum extent feasible.

Policies

- LU-P-1.3 Encourage the use of energy-efficient features in new development.

- LU-P-2.1 Support land use patterns and mixed-use infill development in the City's Downtown Priority Development Area (PDA) that will attract and serve riders of public transit.
- LU-P-2.2 Support the transformation of Downtown Martinez into a pedestrian-oriented commercial and mixed-use district with a mix of office, retail, government, high and mid-density residential, cultural, and entertainment land uses, designed to create an active lively streetscape and a sense of place.
- LU-P-2.3 Consider new infill and development projects within the Downtown that are consistent with the City's Land Use Map and compatible with surrounding uses.
- LU-P-6.1 Consider environmental justice issues related to potential adverse health impacts associated with land use decisions, including exposure to hazardous materials, industrial activity, vehicle exhaust, and other sources of pollution, on residents regardless of age, culture, gender, race, socioeconomic status, or geographic location.

Implementation Measures

- LU-I-1.3a Require compliance with the California Green Building Standards Code – Part 11, Title 24, California Code of Regulations (known as CALGreen). In 2007, the California Building Standards Commission developed green building standards to meet the goals of California's landmark initiative AB 32, which established a comprehensive program of cost-effective reductions of greenhouse gases (GHG) to 1990 levels by 2020.
- LU-I-2.1a Continue implementation of the Downtown Martinez Specific Plan to guide new mixed-use infill development.
- LU-I-2.2a Pursue implementation of the transportation improvement policies in the Downtown Community Based Transportation Plan.
- LU-I-6.1a Review all development proposals, planning projects, and infrastructure projects to ensure that potential adverse impacts to disadvantaged communities, such as exposure to pollutants, including toxic air contaminants, and unacceptable levels of noise and vibration are reduced to the extent feasible and that measures to improve quality of life, such as connections to bicycle and pedestrian paths, community services, schools, and recreation facilities, access to healthy foods, and improvement of air quality are included in the project. The review shall address both the construction and operation phases of the project.

Open Space & Conservation Element

Goals

- OSC-G-6 Reduce energy, water, and resource consumption.
- OSC-G-7 Reduce energy use to limit air pollution and likelihood of power outages.

Policies

- OSC-P-6.1 Reduce energy, water, and resource consumption wherever possible as they pertain to buildings and construction.
- OSC-P-6.2 Promote and encourage compliance with sustainable building standards.
- OSC-P-6.3 Strongly encourage landscaping that promotes more efficient use of water and energy including an evaluation of xeriscaping (no/low water use landscaping plants), native plants in landscaping, drip irrigation, and irrigation controls.
- OSC-P-6.4 Encourage existing buildings and new construction to incorporate renewable energy and energy- and water-efficient technologies.
- OSC-P-6.5 Cooperate with PG&E, Contra Costa County, State of California and all relevant public and private organizations efforts to retrofit existing homes with energy saving devices.
- OSC-P-6.6 Support the use of solar power by streamlining the permitting process.
- OSC-P-6.7 Encourage use of recycled-content construction materials.
- OSC-P-6.8 Encourage rehabilitation and reuse of buildings whenever appropriate and feasible as an alternative to new construction.
- OSC-P-6.9 Continue supporting recycling and composting programs.
- OSC-P-6.10 Continue to support the use of electric and other alternative fuel-sourced vehicles.
- OSC-P-6.11 Promote land use patterns which minimize energy consumption.
- OSC-P-7.1 Continue to support the efforts of MCE Clean Energy and Pacific Gas and Electric in identifying projected energy demands for residential, commercial, industrial, and other land uses and promote alternative energy such as the use of solar.
- OSC-P-7.2 Support incentive programs that promote reduction of energy use.

Implementation Measures

- OSC-I-6.1a Identify opportunities for creating energy conservation and efficiency programs for application in all City facilities, schools, and local businesses.
- OSC-I-6.1b Institute a water conservation program for all City facilities to include such features as installation of waterless urinals and low flow toilets.
- OSC-I-6.1e Continue to support the building material recycling program through education of the public, contractors, and developers.
- OSC-I-6.1f Continue to support programs that reduce waste, improve recycling rates, divert organic waste from the landfill, and recover edible food as set forth in the Climate Action Plan.

- OSC-I-7.1a Consider adoption of an ordinance implementing “green” building practices that include the use of solar power.
- OSC-I-7.1b Adopt an ordinance that limits or prohibits the introduction of new wood burning stoves in new or remodeled residential buildings.

Circulation Element

Goals

- C-G-1 Encourage safe and convenient access to activities in the community and provide a well-designed local roadway system as well as pedestrian pathways and bicycle lanes.
- C-G-7 Maintain and update street standards for design, construction and maintenance of “Complete Streets.” When constructing or modifying transportation facilities, strive to provide for a balanced system for the movement of vehicles, commercial trucks, alternative and low emissions vehicles, transit and its users, bicyclists, pedestrians, children, persons with disabilities, and seniors appropriate for the road classification and adjacent land use.
- C-G-8 Promote safe and convenient pedestrian and bicycle circulation.
- C-G-9 Provide complete streets integrating a comprehensive transportation network with infrastructure and design that allows safe and convenient travel along and across streets for all users, including pedestrians, bicyclists, persons with disabilities, motorists, movers of commercial goods, users and operators of public transportation, seniors, children, youth and families.
- C-G-10 Promote a well-integrated and coordinated transit network.

Policies

- C-P-1.1 Provide safe and well-connected neighborhood streets that balance automotive circulation with neighborhood design and bicycle and pedestrian user safety.
- C-P-1.4 Provide a comprehensive citywide system of bicycle lanes and recreational trails that improve accessibility without the use of an automobile.
- C-P-5.1 Plan and prioritize Downtown area improvements that reduce congestion and promote non-motorized travel between nearby complementary uses.
- C-P-5.4 Consider reduced street widths, increases in width of bicycle lanes and sidewalks, as well as reduction in vehicular speed to create a greater sense of community and place.
- C-P-7.1 Plan for safe, complete, and well-connected neighborhood streets. Modify the existing street network where possible to enable direct physical connections within and between residential areas, shopping destinations, employment centers, and neighborhood parks/open spaces including, where appropriate, connections accessible only by pedestrians and bicycles to and/or from existing cul-de-sacs. Evaluate projects to ensure

that the safety, comfort, and convenience of pedestrians, bicyclists, and transit users are given equal level of consideration to motor vehicle operators.

- C-P-7.2 Design and implement “Complete Streets” that enable safe, comfortable and attractive access for all users – pedestrians, motorists, bicyclists, and transit riders of all ages and abilities – in a manner that is compatible with and complementary to adjacent development and promotes connectivity between complementary land uses. New development projects must contribute to or construct transit facilities where the project would induce or increase demand on nearby arterial and collector streets, as determined through a Transportation Impact Analysis funded and completed by the project applicant.
- C-P-8.1 Promote walking and bicycling for transportation, recreation, and improvement of public and environmental health.
- C-P-8.2 Recognize and meet the mobility needs of pedestrians and bicyclists of all skill levels and ages, persons using wheelchairs, and those with other mobility limitations.
- C-P-8.3 Develop off-street pedestrian linkages, including connections that allow pedestrians to travel through the ends of cul-de-sacs, pedestrian paths, bridges over creeks and roadways, and pedestrian circulation improvements throughout the City.
- C-P-8.4 Provide safe and direct pedestrian routes and bicycle facilities between destinations to enhance the non-motorized circulation network and interface with regional systems.
- C-P-9.1 Review street construction, development projects and utility projects to identify opportunities to implement complete streets.
- C-P-9.2 Create a complete street network that provides facilities for users to travel throughout Martinez.
- C-P-10.1 Promote the use of public transportation for daily trips, including to schools and workplaces, as well as other purposes.
- C-P-10.2 Continue to cooperate with other partner agencies and jurisdictions to promote local and Martinez connections to regional public transit, including CCCTA and MTC.
- C-P-10.4 Coordinate with public transit agencies to facilitate safe, efficient and convenient pedestrian and bicycle access to transit stops, and work with agencies to relocate stops if necessary.
- C-P-10.5 Encourage transit use by working with regional transportation providers to install bus stops, shelters, benches, turnouts, park and ride lots, transfers, and other necessary facilities on arterial and collector streets.
- C-P-14.1 Continue to educate the community on energy conservation and promote alternative solutions wherever possible.

- C-P-14.2 Support the installation of solar panels on new development and investigate and encourage solar energy on public buildings and new developments.
- C-P-14.3 Continue to support electric vehicle charging stations throughout the City to promote the use of energy-efficient vehicles.
- C-P-14.4 Support energy efficiency in City operations where practical and feasible.

Implementation Measures

- C-I-5.1a Require new development to construct projects that maximize opportunities for alternative transportation modes such as bicycle and pedestrian paths as well as public transit opportunities to create easy access to and from Downtown.
- C-I-5.1b Adopt a formalized procedure for evaluating and analyzing roadways for speed and safety in order to consider the needs of all modes of transportation and adjacent land uses.
- C-I-5.1e Improve the existing street network to minimize travel times and improve mobility for transit, bicycle, and walking trips between new projects and surrounding land uses in an effort to reduce vehicle trips.
- C-I-7.1a Implement land use policies designed to create a development pattern that facilitates shopping, working, socializing, and recreation within walkable distances.
- C-I-7.1b Encourage the development of a network of continuous walkways within new commercial, public, and industrial uses to improve employees' ability to walk safely around, to, and from their workplaces.
- C-I-8.1b Ensure that landscaping plans consider street trees to provide shade and comfort for pedestrians and bicyclists.
- C-I-8.3c Install clearly marked crosswalks at intersections near all commercial uses, as well as clearly marked pedestrian paths within parking areas. Mid-block crossings are discouraged. However, if conditions warrant and are approved by the City Engineer, crosswalks and signage indicating pedestrian activity may be installed at mid-block entrances where existing commercial uses are adjacent to other high-intensity uses, such as parks and schools.
- C-I-8.1d Encourage further expansion of the existing network of continuous walkways, and encourage the development of new continuous walkways, between schools and residential areas.
- C-I-8.1e Facilities for bicycle travel (Class I bike/multiuse paths, Class II bike lanes, Class III bike routes, and Class IV bikeways) shall be provided to complete a continuous system, consistent with the Countywide Bicycle & Pedestrian Plan presented in Figure 6-3.

Deviations from the routing shown on the Bicycle & Pedestrian Master Plan may be permitted with approval of the City Engineer.

- C-I-8.1f Bike lane widths shall follow State standards. In cases where existing right of way constraints limit development of Class II or Class IV facilities, Class III signage and demarcation may be permitted at the discretion of the City Engineer. Deviations from these standards may be permitted with approval of the City Engineer.
- C-I-8.1g Use visual cues, such as green colored paint on bike lanes, bike boxes, or painted buffer strip, along bicycle ways to provide a visual signal to drivers to watch out for bicyclists.
- C-I-8.1h In order to increase awareness of bicyclists sharing the roadway with motorized vehicles, demarcate Class III bicycle facilities, where appropriate, by painting “sharrows” on the pavement. Because of maintenance costs associated with “sharrows,” their use should be prioritized in areas of higher bicycle use frequency or increased bicycle-vehicle conflict zones, or where the bikeway may be obscured by traffic, or the natural or built environment.
- C-I-8.1i Establish a program to encourage bicycle use among City employees. Consider incentives that encourage private employers to facilitate and promote bicycle use by employees.
- C-I-8.1j Provide safe bicycle access to and from parking facilities at all community parks.
- C-I-8.1k Continue to designate a portion of the City’s street construction and improvement fund for financing bikeway design and construction.
- C-I-8.1l Ensure that City facilities within the Countywide Bicycle and Pedestrian Plan maintain consistency with the requirements of the Streets and Highway Code in order to be eligible for further funding for improvements from the State or federal sources, such as the Bicycle Transportation Account funds.
- C-I-8.1m Include funding for City facilities within the Countywide Bicycle & Pedestrian Plan updates and bikeway improvements to assist with funding Martinez projects listed in the plan and the City’s Transportation Impact Fee program, recognizing the multi-modal travel needs of the City.
- C-I-9.1a Ensure development projects construct adjacent or nearby portions of trails, bicycle and or pedestrian paths set forth in the improvements table and map, to complete the network of transportation routes.
- C-I-9.1b Ensure staff review of development applications integrate multimodal infrastructure in street design, as conditions of approval.
- C-I-9.1c Prioritize the allocation of limited funds among potential complete street improvement projects taking into account safety, sidewalk and bicycle access, and access to trails.

4.3 AIR QUALITY

- C-I-9.1d Recognize the multi-modal travel needs of the City by allocating revenue from the City's Transportation Impact Fee for bikeway and pedestrian facilities. These facilities should be consistent with the *Countywide Bicycle & Pedestrian Plan* until the City adopts its own master plan. Explore whether the impact fees can be automatically increased with the annual cost of living adjustment.
- C-I-10.1a Work with CCCTA to continue to support and expand transit routes that serve regional destinations within the City like the Downtown area, medical centers, and the Amtrak station.
- C-I-10.1b Work with CCCTA to continue to support and expand transit loops to serve local and regional medical centers, schools, and shopping, employment and recreation destinations.
- C-I-10.1c Work with CCTA and MTC to continue to pursue federal and State funds to subsidize capital and operating costs associated with local transit operations.
- C-I-10.1d Encourage ridership on public transit systems through marketing and promotional efforts. Provide information to residents and employees on transit services available for local and regional trips.
- C-I-10.1e Coordinate with partner agencies to implement regional transit solutions as part of the MTC SB 375 Sustainable Communities Strategy, and the City's Climate Action Plan.
- C-I-10.1f Support existing regional transit services, and promote Martinez commuter use of transit to lower greenhouse gas production from long distance single occupant vehicle commuting. Continue to support the County Connection bus service provided by CCCTA.
- C-I-10.1g Support efforts to improve the coordination and efficiency of bus service on a regional level and, if appropriate, the regionalization of transit service delivery.
- C-I-14.3a Where practical, utilize bicycles or low-emission vehicles for park maintenance and operations.
- C-I-14.4a When possible, replace existing equipment with more efficient heating, cooling, computer and lighting systems within City facilities.

Noise & Air Quality Element

Goals

- NA-G-5 Improve air quality over current conditions and meet or exceed State and regional standards.
- NA-G-6 Reduce levels of air contaminants.

Policies

- NA-P-5.1 Continue to support and coordinate air quality planning efforts with other local, regional and State agencies to improve regional air quality.
- NA-P-1.2 Cooperate with regional efforts to expand public and mass transit services.
- NA-P-6.1 Reduce local contributions to the air contaminant levels in the air basin and particulate emissions to achieve levels below BAAQMD levels, in particular the levels of ozone and particulate matter.

Implementation Measures

- NA-I-6.1a Require construction projects to implement the following dust control measures:
- a) Water all active construction areas at least twice daily and more often during windy periods. Active areas adjacent to residences should be kept damp at all times.
 - b) Cover all hauling trucks or maintain at least two feet of freeboard.
 - c) Pave, apply water at least twice daily, or apply non-toxic stabilizers on all unpaved access roads, parking areas, and staging areas.
 - d) Sweep daily with water sweepers all paved access roads, parking areas, and staging areas and sweep streets daily with water sweepers if visible soil material is deposited onto the adjacent roads.
 - e) Hydroseed or apply non-toxic soil stabilizers to inactive construction areas (i.e., previously graded areas that are inactive for 10 days or more).
 - f) Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles.
 - g) Limit traffic speeds on any unpaved roads to 15 mph.
 - h) Replant vegetation in disturbed areas as quickly as possible.
 - i) Suspend construction activities that cause visible dust plumes to extend beyond the construction site.
 - j) Post a publicly visible sign with contact information for dust complaints.
- NA-I-6.1b Require construction projects to reduce diesel particulate matter, PM_{2.5}, and other construction emissions by implementing the following measures:
- a) Provide a plan for approval by the City or the Bay Area Air Quality Management District (BAAQMD) demonstrating that heavy-duty (>50 horsepower) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NOX reduction and 45 percent particulate reduction compared to the most recent CARB fleet average for the year 2011.
 - b) Post signs indicating that diesel equipment and trucks standing idle for more than five minutes are to be turned off. This includes trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks may keep their engines running as long as they are onsite or adjacent to the

construction site. Install temporary electrical service whenever possible to avoid the need for independently powered equipment.

c) Properly tune and maintain equipment for low emissions.

NA-I-6.1c Require a construction health risk assessment either through screening or refine modeling, for large-scale construction projects that may result in significant diesel particulate matter. The construction health risk assessment must identify impacts and, if necessary, include measures to reduce exposure. Reduction in health risk can be accomplished through, though is not limited to, the following measures:

a) Construction equipment selection;

b) Use of alternative fuels, engine retrofits, and added exhaust devices;

c) Modification of the construction schedule;

d) Implementation of BAAQMD Basic and/or Additional Construction Mitigation Measures for control of fugitive dust.

NA-I-6.1d Encourage the use of non-vehicular means of transportation through land use patterns and investing in pedestrian and bicycle infrastructure and, as feasible, supporting a Safe Routes to School Program.

NA-I-6.1e Minimize impacts of new development by reviewing development proposals for potential impacts pursuant to CEQA and the BAAQMD Air Quality Handbook. Apply land use and transportation planning techniques to encourage the use of non-vehicular means of transportation, and/or shared transportation where possible, with the incorporation of:

a) Public transit stops;

b) Pedestrian and bicycle linkage to commercial centers, employment centers, schools, and parks;

c) Preferential parking for car pools and van pools;

d) Traffic flow improvements; and

e) Employer trip reduction programs.

NA-I-7.1a Future development that includes sensitive receptors such as schools, hospitals, day care centers, residential developments, and retirement homes located within specific setback distances from highways, railroads, local roadways, and stationary sources as described in the Martinez General Plan Environmental Impact Report will require a site-specific analysis to determine the level of Toxic Air Contaminants (TAC) and PM_{2.5} exposure. The analysis shall be conducted following procedures outlined by BAAQMD. If the site-specific analysis reveals significant exposures, such as cancer risk greater than 10 in one million or cumulative cancer risk greater than 100 in one million, additional measures shall be employed to reduce the risk to below the threshold. If this is not possible, the sensitive receptor shall be relocated.

NA-I-7.1b Future non-residential developments will be evaluated through the CEQA process or BAAQMD permit process to ensure that they do not cause a significant health risk in

terms of cancer risk greater than 10 in one million, acute or chronic hazards with a Hazard Index greater than 1.0, or annual PM_{2.5} exposure greater than 0.3 µg/m³, or a significant cumulative health risk in terms of excess cancer risk greater than 100 in one million, acute or chronic hazards with a Hazard Index greater than 10.0, or annual PM_{2.5} exposure greater than 0.8 µg/m³.

- NA-I-7.1c Air filtration systems installed shall be rated MERV-13 or higher and a maintenance plan for the air filtration system shall be implemented.
- NA-I-7.1d Trees and/or vegetation shall be required to provide a buffer between sensitive receptors and pollution sources when feasible. Trees that are best suited to trapping particulate matter shall be planted, including the following: Corsican pine (*Pinus nigra* var. *maritima*), Leyland cypress (*x Cupressocyparis leylandii*), hybrid poplar (*Populus deltoides x trichocarpa*), and coast redwood (*Sequoia sempervirens*).
- NA-I-7.1e Sites shall be designed to locate sensitive receptors as far away as possible from freeways, roadways, refineries, diesel generators, and distribution centers.
- NA-I-7.1f Improve indoor air quality by reviewing development plans to ensure that operable windows, balconies, and building air intakes are located as far away as possible from pollution sources. If near a distribution center, residential units shall not be located immediately adjacent to a loading dock or where trucks concentrate to deliver goods.

Impact 4.3-2: General Plan implementation could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (Significant and Unavoidable)

Short-Term Construction Impacts

Implementation of the General Plan Update would result in short-term emissions from construction activities associated with subsequent development, including site grading, asphalt paving, building construction, and architectural coating. Emissions commonly associated with construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. During construction, fugitive dust, the dominant source of PM₁₀ and PM_{2.5} emissions, is generated when wheels or blades disturb surface materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby.

Demolition and renovation of buildings can also generate PM₁₀ and PM_{2.5} emissions. Off-road construction equipment is often diesel-powered and can be a substantial source of NO_x emissions, in addition to PM₁₀ and PM_{2.5} emissions. Worker commute trips and architectural coatings are dominant sources of ROG emissions. In addition, NO_x emissions during grading and soil import/export for large projects may exceed the BAAQMD NO_x emission thresholds. The BAAQMD CEQA Air Quality Guidelines do not identify plan-level thresholds that apply to construction. Without

application of appropriate control measures to reduce construction dust and exhaust, construction-related impacts would be considered a potentially significant impact.

Individual projects anticipated by the proposed General Plan Update would be required to implement their own environmental review and demonstrate consistency with the General Plan, and all applicable BAAQMD construction-related programs and policies, including the incorporation of best management practices. The proposed General Plan Update goals, policies, and implementation measures would reduce construction emissions. Implementation Measures NA-I-6.1a and NA-I-6.1b require construction projects to implement dust control measures and reduce diesel particulate matter, PM_{2.5} and other construction emissions by implementing specific measures, respectively. Implementation Measure NA-I-2.1c requires a construction health risk assessment for large-scale construction projects that may result in significant diesel particulate matter. Implementation of these General Plan measures, as well as compliance with all applicable BAAQMD construction emissions requirements, would ensure that short-term construction related emissions associated with future development allowed under the proposed General Plan would be **less than significant**.

Long-Term Operational Impacts

Implementation of the General Plan Update would result in long-term area and mobile source emissions from operation and use of subsequent development. Implementation of the General Plan Update could include stationary sources of pollutants that would be required to obtain permits to operate in compliance with BAAQMD rules. These sources include, but are not limited to, gasoline stations, dry cleaners, internal combustion engines, and surface coating operations. The BAAQMD stationary source permit process ensures that these sources would be equipped with the required emission controls and that, individually, these sources would result in a less than significant impact.

As discussed above, the BAAQMD Air Quality Guidelines do not have thresholds related to direct and indirect regional criteria pollutant emissions resulting from plan implementation. The BAAQMD CEQA Air Quality Guidelines only require emissions computations for project-level analysis. Implementation of the General Plan Update would result in increased short-term emissions associated with construction projects, increased emissions associated with stationary sources, and increased emissions associated with transportation and operation of future development. The specifics of future development are not known at this time. There is the potential for cumulative future development to result in a cumulatively considerable net increase in criteria pollutants for which the region is in nonattainment. Future development under the General Plan Update would be required to comply with the AQMP, SIP, CARB and BAAQMD regulations, Title 24 energy efficiency standards, and the General Plan Update's goals, policies, and implementation measures, as described under Impact 4.3-1. Implementation Measure NA-1-5.1a requires new stationary sources with potential air quality impacts to obtain the necessary permits from BAAQMD and Implementation Measure NA-1-5.1b would ensure projects are reviewed for their potential effect on air quality conditions as part of the environmental impact review process. Implementation Measure NA-I-6.1e would minimize impacts of new development by reviewing development proposals pursuant to CEQA and the BAAQMD Air Quality Handbook and applying land use and

transportation planning techniques to encourage the use of non-vehicular means of transportation and or shared transportation.

Implementation of the General Plan Update goals, policies, and implementation measures described under Impact 4.3-1 and compliance with the required air quality regulatory framework would reduce potential air quality impacts associated with future operational emissions. However, it is impossible to determine if individual project-level impacts would be reduced to below regulatory thresholds. There are no feasible criteria air pollutant reduction measures beyond those identified within the goals, policies, and implementation measures identified in under Impact 4.3-1 and the regulatory framework, that would reduce impacts to less than significant at this programmatic level of review. While implementation of the goals, policies, and implementation measures would reduce criteria pollutant emissions, the extent to which the impacts would need to be determined on a project-by-project basis, as necessary. The potential for cumulatively considerable net increases in criteria pollutants would remain. Therefore, this impact is considered **significant and unavoidable**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Refer to the Goals, Policies, and Implementation Measures provided under Impact 4.3-1.

Impact 4.3-3: General Plan implementation would expose sensitive receptors to substantial pollutant concentrations (Less than Significant)

Subsequent land use activities associated with implementation of the General Plan Update could potentially include short-term construction sources of TACs and long-term operational sources of TACs, including stationary and mobile sources.

Health risks associated with TACs are most pronounced in the areas adjacent to freeway segments. Under the Community Air Risk Evaluation (CARE) program, the BAAQMD has designated certain areas as “Impacted Communities” if the following occur: the areas (1) are close to or within areas of high TAC emissions; (2) have sensitive populations, defined as youth and seniors, with significant TAC exposures; and (3) have significant poverty. Martinez is not mapped by the BAAQMD as an Impacted Community under the CARE program.

Regardless of the existing health risks associated with TACs, the BAAQMD CEQA Guidelines provide recommendations for all communities to ensure reduced health risks associated with TACs. The proposed General Plan Update includes goals, policies, and implementation measures that are intended to minimize exposure of TACs to sensitive receptors (described further below).

Temporary Construction Sources

Implementation of the General Plan Update would result in the potential construction of a variety of projects. This construction would result in short-term emissions of diesel particulate matter (DPM), a TAC. Construction would result in the generation of DPM emissions from the use of off-road diesel equipment required for site grading and excavation, paving, and other construction activities. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC

emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer. The calculation of cancer risk associated with exposure to TACs is typically based on a 70-year period of exposure. The use of diesel-powered construction equipment, however, would be temporary and episodic and would occur over a relatively large area. Cancer risk and PM_{2.5} exposure would have to be analyzed through project-level analysis to identify the potential for significant impacts and measures to reduce those impacts to less than significant. Implementation of General Plan Update Implementation Measures NA-I-7.1a through NA-I-7.1f would require, in part, that future development of sensitive receptors within specific setback distances from sources of TACs and PM_{2.5} to prepare a site-specific analysis of exposure pursuant to BAAQMD procedures. Additionally future non-residential developments would be evaluated through the CEQA process or BAAQMD permit process to ensure they do not cause a significant health risk. Sites would be required to be designed to locate away from pollution sources and trees and/or vegetation would be required as a buffer between sensitive receptors and pollution sources. Compliance with the required regulatory framework and General Plan Update goals, policies, and implementation measures would reduce temporary construction-related TAC impacts to **less than significant**.

Long-Term Operational Sources

According to the BAAQMD CEQA Air Quality Guidelines, for a plan to have a less-than-significant impact with respect to TACs, overlay zones must be established around existing and proposed land uses that would emit these air pollutants. Overlay zones to avoid TAC impacts must be reflected in local plan policies, land use maps, or implementing ordinances.

The BAAQMD CEQA Air Quality Guidelines consider exposure of sensitive receptors to air pollutant levels that result in an unacceptable cancer risk or hazard, to be significant. For cancer risk, which is a concern with diesel particulate matter and other mobile-source TACs, the BAAQMD Risk Management Policy considers an increased risk of contracting cancer that is 10 in one million chances or greater, to be significant risk for a single source. The BAAQMD CEQA Guidelines also consider exposure to annual PM_{2.5} concentrations that exceed 0.3 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to be significant. Non-cancer risk would be considered significant if the computed Hazard Index is greater than 1.0.¹ For cumulative sources, the BAAQMD CEQA Guidelines consider 100 in one million excess cancer risk, PM_{2.5} concentrations that exceed 0.8 $\mu\text{g}/\text{m}^3$, and non-cancer Hazard Index greater than 10.0 to be significant.

The General Plan Update would permit and facilitate the development of new sensitive receptors, such as new homes, in locations near arterial and collector roadways, highways, rail lines, and stationary sources of TAC emissions. Screening levels indicate that sensitive receptors within the Study Area could be exposed to levels of TACs and or PM_{2.5} that could cause an unacceptable cancer risk or hazard near highways and stationary sources.

¹ The Hazard Index is the ratio of the computed receptor exposure level to the level known to cause acute or chronic adverse health impacts, as identified by BAAQMD.

TAC sources were identified within a 1,000-foot radius from planned and entitled projects of the Study Area. These sources include: stationary sources permitted by BAAQMD, roadways with more than 10,000 annual average daily traffic (AADT), and highways or freeways. Using the screening analysis tools – the stationary source screening analysis tool, the highway screening analysis tool, and the roadway screening analysis tool – potential risk and hazard impacts were assessed, as described below.

Stationary Sources

The Study Area has numerous permitted stationary sources. These sources are located throughout the City, but mostly in industrial and commercial areas. The impact of these sources can only be addressed on a project-by-project basis, since impacts are generally localized. To assist lead agencies, BAAQMD has provided a database of permitted sources for each County. The database is contained in a Google Earth tool that allows a user to identify stationary sources within 1,000 feet of a receptor. The database can then be accessed through Google Earth to determine conservative screening levels of cancer risk, hazards, and PM_{2.5} concentrations. This allows many of the sources to be screened out of any additional analysis. Stationary sources that show the potential for significant community risk impacts after this first level of review are further analyzed by contacting BAAQMD for additional information and applying distance adjustment factors. A refined modeling analysis would be required if there are sources that still have potentially significant impacts after this level of review. A refined analysis would include dispersion modeling of the source using emissions and source information provided by BAAQMD. If the source still has significant community risk impacts following this level of effort, then risk reduction strategies would have to be implemented by the project on a case-by-case basis.

When siting new sensitive receptors, the BAAQMD Guidelines advise that lead agencies examine existing or future proposed sources of TAC and/or PM_{2.5} emissions that would adversely affect individuals within the planned project. New residences and sensitive receptors could be located near stationary sources of TACs located throughout the City, such as refineries, gasoline dispensing stations, emergency back-up diesel generators, and dry cleaners. Without proper setbacks or mitigation measures, these sources could result in TAC levels that would be significant for new sensitive receptors.

Gasoline Stations. The BAAQMD recommends a setback of 300 feet for large gasoline dispensing facilities (3.6 million gallons of throughput a year) and 50 feet for small facilities. This is consistent with CARB recommendations, which found that, except for the largest gasoline stations, health risks near gasoline stations should be less than 10 in one million at distances beyond 50 feet.

Dry Cleaning Facilities. Perchloroethylene (Perc) is the solvent used commonly in past dry-cleaning operations. Perc is a TAC because it has the potential to cause cancer. In 2005, CARB recommended setbacks of 300 feet between dry cleaning facilities that emit Perc and sensitive land uses. Since then, CARB has enacted new rules to substantially reduce Perc emissions and phase out the use of TACs in dry cleaning by 2023. However, CARB's recommended buffers are based on cancer risk based on a 70-year exposure computation. Therefore, the 300-foot setback may be overly conservative. Most dry-cleaning facilities would need to be analyzed on a project-by-project basis, starting by determining if the facility in question uses Perc in their cleaning process.

Oil Refineries. The BAAQMD recommends a setback of 0.5 miles from oil refineries, such as the Shell Refinery in Martinez.

Emergency Back-Up Generators. Electricity generators that are powered by diesel engines are common. They are typically located at facilities where uninterrupted electricity is necessary. Common facilities include fire and police stations, hospital or medical treatment facilities, pump stations, schools, offices, and data centers. Diesel engines powering these generators are regulated by BAAQMD and CARB. CARB has established strict emissions limits and operating restrictions for engines larger than 50 horsepower. BAAQMD has developed criteria (Regulation 2 Rule 5) for approval of projects with new or modified emission sources of TACs. As a result, all new engines have very localized impacts and would not be permitted if they would cause significant cancer risks or hazards. Existing engines are only permitted to operate for 50 hours per year for maintenance or routine testing.

Specific stationary sources in the Study Area were identified using BAAQMD's *Stationary Source Screening Map*, as described above. The BAAQMD data provide the screening risk, hazard and PM_{2.5} concentration levels associated with each source. Table 4.3-5 identifies the approximate setback distances from stationary sources that have potentially significant impacts using the screening data provided by BAAQMD and the *Cancer Risk and Hazard Distance Adjustment Multiplier* tool. However, refined analysis of the effects from these sources through emissions and dispersion modeling would likely show lower TAC exposure.

The BAAQMD *Cancer Risk and Hazard Distance Adjustment Multiplier* does not provide adjustments for PM_{2.5} concentration. Therefore, instances where PM_{2.5} screening concentrations exceed the threshold have been identified in Table 4.3-5 as "project-specific analysis required." Similarly, certain stationary sources in the BAAQMD tool are marked as "No Data." Again, in these cases, project-specific analysis would be required by contacting BAAQMD and possibly conducting refined modeling if emissions are found to exceed thresholds. Stationary sources that do not have potentially significant impacts at 50 feet or greater were not included in Table 4.3-5. Stationary sources are generally reported in Table 4.3-5 from west to east and north to south across the City.

TABLE 4.3-5: APPROXIMATE SCREENING SETBACK DISTANCES FOR STATIONARY TAC SOURCES

Source	Distance in Feet to Cancer Risk Threshold	Distance in Feet to PM _{2.5} Threshold
Verizon Wireless generator, Plant 16117, 396 Cummings Skyway	198	<50
Verizon Wireless Franklin Canyon generator, Plant 15196, 2670 Franklin Canyon Road	231	<50
City of Martinez, Plant G7059, 7 N. Court Street	Project-specific analysis required	Project-specific analysis required
Central Contra Costa Sanitary District generator, Plant 14065, 292 Embarcadero	264	<50
Telfer Sheldon Oil Company, Plant G8845, 211 Foster Street	Project-specific analysis required	Project-specific analysis required
Back to the Past, Inc., Plant 19755, 221 Berrellesa Street	Project-specific analysis required	Project-specific analysis required
Contra Costa County generator, Plant 18005, 555 Escobar Street	99	<50
General Services Department generator, Plant 14147 500 Court Street	83	<50
Contra Costa Community College District generator, Plant 20258, 500 Court Street	Project-specific analysis required	Project-specific analysis required
General Services Department generator, Plant 14130 651 Pine Street	99	<50
General Services Department generator, Plant 14132 1020 Ward Street	297	<50
Contra Costa County, Plant 2094, 1000 Ward Street	198	<50
Equilon Enterprises LLC, Plant 11956, 1801 Marina Vista	0.5 miles	0
Shell Martinez Refinery, Plant 11, 3485 Pacheco Boulevard	0.5 miles	Project-specific analysis required
Shell Chemical LP, Plant 12870, 10 Mococo Road	<50	Project-specific analysis required
Tesoro Refining and Marketing Company, Plant 14629, 1750 Marina Vista Way	0.5 miles	<50
Rhodia, Inc., Plant G5980, 100 Mococo Road	Project-specific analysis required	Project-specific analysis required
Rhodia, Inc., Plant 11661, 100 Mococo Road	<50	Project-specific analysis required
State of California DOT generator, Plant 14969, 78 Mococo Road	528	<50
Central Contra Costa Sanitary District generator, Plant 14060, 2001 Marina Vista	231	<50
USA Petroleum, Plant G11817, 2501 Pacheco Boulevard	131	na
Contra Costa County Fire Station #12, Plant G9782, 1240 Shell Avenue	Project-specific analysis required	Project-specific analysis required
Redwood Painting Co, Inc., Plant 16067, 3485 Pacheco Boulevard	<50	Project-specific analysis required

4.3 AIR QUALITY

Source	Distance in Feet to Cancer Risk Threshold	Distance in Feet to PM _{2.5} Threshold
FastStop, Plant G8543, 3520 Pacheco Boulevard	115	na
Plains Products Terminals LLC, Plant 17559, 2801 Waterfront Road	0.5 miles	50
Acme Fill Corporation, Plant 1464, 950 Waterbird Way	0.5 miles	Project-specific analysis required
Contra Costa Transfer & Recovery Station, Plant 9680, 950 Waterbird Way	0	Project-specific analysis required
Bulldog Gas & Power, Inc., Plant 13782, 890 Waterbird Way	<50	Project-specific analysis required
Contra Costa County General Services, Plant G8561, 2471 Waterbird Way	Project-specific analysis required	Project-specific analysis required
General Services Department generator, Plant 14148 2467 Waterbird Way	231	<50
Central Concrete Supply Co, Inc., Plant 18598, 993 Waterbird Way	0	Project-specific analysis required
General Services Department generator, Plant 14141 2483 Waterbird Way	330	Project-specific analysis required
Air Products & Chemicals, Inc., Plant 10295, Tesoro Avon Refinery	<50	Project-specific analysis required
Tesoro Refining and Marketing Company, Plant G7610, Tesoro Avon Refinery	Project-specific analysis required	Project-specific analysis required
Tesoro Refining and Marketing Company, Plant 14628, 150 Solano Way, Avon Refinery	0.5 miles	Project-specific analysis required
Martinez Cogen Limited Partnership, Plant 1820, 550 Solano Way, Avon Refinery	0.5 miles	Project-specific analysis required
MECS, Inc., Plant 14, 1778 Monsanto Way	<50	Project-specific analysis required
Central Contra Costa Sanitary District generator, Plant 14064, 990 Central Avenue	495	<50
Mt. View Sanitary District, Plant 4408, 3800 Arthur Road	Project-specific analysis required	<50
Valero Refining Co., SS#7947, Plant G10423, 4141 Alhambra Avenue	82	na
Martinez Gas and Carwash, G11582, 3950 Alhambra Avenue	82	na
Alhambra Shell, Plant G12409, 3630 Alhambra Avenue	148	na
Pacific Bell generator, Plant 13487, 515 E Street	462	<50
Contra Costa Regional Medical Center, Plant 3779, 2500 Alhambra Avenue	859	Project-specific analysis required
Tower Market #92, Plant G12038, 3012 Howe Road	131	na
O'Neal's Body Shop, Plant 20182, 895 Howe Road, Unit #4	Project-specific analysis required	Project-specific analysis required
Environmental Abrasive Blasting & Coating, Plant 16774, 876 Howe Road, #B&C	<50	Project-specific analysis required

Source	Distance in Feet to Cancer Risk Threshold	Distance in Feet to PM _{2.5} Threshold
Cresco Equipment, Plant G6385, 197 Howe Road	Project-specific analysis required	Project-specific analysis required
American Cleaners, Plant 11993, 1160A Arnold Drive	Project-specific analysis required ¹	0
Kaiser Permanente Medical Center generator, Plant 1669, 200 Muir Road	859	50
VA Medical Center, Plant 4096, 150 Muir Road	297	Project-specific analysis required
General Services Department generator, Plant 14140 30 Douglas Drive	165	<50
General Services Department generator, Plant 14143 595 Center Avenue	264	<50
Sunrise Cleaners, Plant 5400, 518 Center Avenue	Project-specific analysis required ¹	0
A-1 Liquor & Food, Plant G688, 81 Center Avenue	115	na
Contra Costa County Fire Protection District, Plant G8195, 251 Church Street, Station #13	Project-specific analysis required	Project-specific analysis required
Chevron #1338, Plant G9901, 1250 Morello Avenue	230	na
Tri-Convenience Store, Plant G7345, 3700 Pacheco Boulevard	98	na
Mt. View Sanitary District generator, Plant 14281, Morello Road	165	<50
Pacheco Shell, Plant G12435, 4355 Pacheco Boulevard	66	na
Laidlaw Environmental Services of California, Plant G6041, 4501 Pacheco Boulevard	Project-specific analysis required	Project-specific analysis required
Tosco Northwest Company – RJRB Ent., Inc., Plant G9300, 61 Arthur Road	131	na
Mt. View Sanitary District generator, Plant 14282, End of Austin Way	297	<50
7-Eleven, Inc. #32235, Plant G9745, 530 Morello Avenue	131	na
Contra Costa Water District generator, Plant 14043, Heather Leaf Lane	396	<50
Contra Costa County Animal Services Facility generator, Plant 15279, 4800 Imhoff Place	231	<50
County Quarry Products, Inc., Plant 3153, 5501 Imhoff Drive	0	Project-specific analysis required
County Asphalt, Plant 10408, 5501 Imhoff Drive	<50	50
Right Away Redy Mix, Plant 10639, 5501 Imhoff Drive	Project-specific analysis required	Project-specific analysis required
Mt. View Sanitary District generator, Plant 14283, Arnold Drive	132	<50

4.3 AIR QUALITY

Source	Distance in Feet to Cancer Risk Threshold	Distance in Feet to PM _{2.5} Threshold
California Highway Patrol, Plant G8287, 5001 Blum Road	Project-specific analysis required	Project-specific analysis required
Central Contra Costa Sanitary District, Plant 907, 5019 Imhoff Place	1,000	Project-specific analysis required
Martinez Self Serve, Plant G11166, 1175 Muir Road	131	na
General Services Department generator, Plant 14136 40 Glacier Drive	495	<50
General Services Department generator, Plant 14144 202 Glacier Drive	264	<50
General Services Department generator, Plant 14137 255 Glacier Drive	297	<50
County of Contra Costa (Juvenile Hall), Plant 19589, 202 Glacier Drive	Project-specific analysis required	Project-specific analysis required
General Services Department generator, Plant 14138 1960 Muir Road	165	<50
General Services Department generator, Plant 14139 1980 Muir Road	495	<50
Sunstate Equipment Co., Plant G682, 5737 Pacheco Boulevard	Project-specific analysis required	Project-specific analysis required
Ebiwash, Inc., Plant G11685, 6606 Alhambra Avenue	115	na
Virginia Hill Auto Center, Plant G11944, 6655 Alhambra Avenue	82	na
Easy Serv, Plant G11316, 6710 Alhambra Avenue	164	na

SOURCE: BAAQMD, 2019; BAAQMD, 2022c.

NOTE: NA = NOT APPLICABLE

¹ DRY CLEANING OPERATIONS WILL CEASE USE OF TACS BY 2023.

Highway and Roadway Traffic

The BAAQMD indicates significant TAC exposures along the following highways in terms of cancer risk and PM_{2.5} exposure: Interstate 680 (I-680) and State Route 4 (SR 4). Table 4.3-6 identifies the approximate setback distances from highway sources that have potentially significant impacts at a distance of 50 feet or greater, using the data provided by BAAQMD. However, refined analysis of the effects from these sources through emissions and dispersion modeling would likely show lower TAC exposure.

TABLE 4.3-6: APPROXIMATE SETBACK DISTANCES FOR HIGHWAY TAC SOURCES

Source	Distance in Feet to Cancer Risk Threshold	Distance in Feet to PM _{2.5} Threshold
I-680 – south of SR 4 (west of)	500	100
I-680 – north of SR 4 (west of)	750	100
State Route 4 – west of Alhambra Avenue (south of)	400	25
State Route 4 – west of Alhambra Avenue (north of)	1,000	75
State Route 4 – Alhambra Avenue to I-680 (south of)	500	50
State Route 4 – Alhambra Avenue to I-680 (north of)	1,000	200

SOURCE: BAAQMD, 2022c.

Railroad Operations

Potential health effects from railroad traffic along the Union Pacific Railroad (UPRR) and Burlington Northern Santa Fe Railway (BNSF) rail lines in Martinez were evaluated. The UPRR rail line is located on the northern edge of Martinez between Downtown and the Carquinez Strait. The BNSF rail line bisects the City about 1.5 to 2 miles south of the UPRR tracks. The UPRR rail line is used by trains for passenger and freight service, while the BNSF rail line is used only for freight service.

Passenger rail service on the UPRR rail line includes diesel fueled trains for the California Zephyr, Coast Starlight, Capitol Corridor, and San Joaquin trains, all operated by Amtrak. There are approximately 44 passenger trains that run along this line during the weekdays and 22 trains during the weekend, according to the Amtrak posted schedule. In addition, there are about eight freight trains that also use this rail line on a daily basis. On the BNSF rail line, there are up to six daily freight trains (Metropolitan Transportation Commission, 2006).

Trains on the UPRR rail line would have a significant cancer risk (above 10 in one million excess risk) within approximately 350 feet in both directions (north and south) from the rail line. For the BNSF rail line, trains would have a less-than-significant cancer risk at all distances beyond 50 feet from the rail line in both directions (north and south). PM_{2.5} concentration would not be significant (above 0.3 µg/m³) for either the UPRR or BNSF rail lines at distances beyond 50 feet.

Hazard Index

Potential non-cancer health effects due to chronic exposure to DPM were not estimated since the concentration threshold for non-cancer effects is considerably higher than concentrations that would result in significant cancer risks that were described above. The chronic inhalation reference exposure level (REL) for DPM is 5 µg/m³. The DPM modeling assessment predicted maximum annual DPM concentrations more than 10 times lower than the REL. Thus, the Hazard Index (HI), which is the ratio of the annual DPM concentration to the REL, would be much lower than significance criterion of a HI greater than 1.0.

Summary

The General Plan Update would allow growth of new residential land uses that would be sensitive receptors and new non-residential land uses that are a potential for new emissions sources. Typically, these sources would be evaluated through the BAAQMD permit process or the CEQA

process to identify and mitigate any significant exposures. However, some sources that would not undergo such a review, such as truck loading docks or truck parking areas, may have the potential to cause significant increases in TAC exposure. This impact would be potentially significant. As previously described, there are recommended setback distances for long-term operational sources and stationary sources, including gasoline stations, dry cleaning facilities, oil refineries, emergency back-up generators, highways and roadways, and railroads. Additionally, implementation of the proposed General Plan Update goals, policies, and implementation measures would reduce the exposure to sensitive receptors to pollutant concentrations. Goal NA-G-7 requires approval of new construction to include review of sensitive receptors. Policy NA-P-7.1 requires projects to utilize site planning and building design to reduce exposure to toxic air contaminants and PM_{2.5}. Implementation Measures NA-I-7.1a through NA-I-7.1f would require, in part, that future development of sensitive receptors within specific setback distances from sources of TACs and PM_{2.5} to prepare a site-specific analysis of exposure pursuant to BAAQMD procedures. Additionally, future non-residential developments would be evaluated through the CEQA process or BAAQMD permit process to ensure they do not cause a significant health risk. Sites would be required to be designed to locate away from pollution sources and trees and/or vegetation would be required as a buffer between sensitive receptors and pollution sources. Implementation of proposed General Plan Update goals, policies, and implementation measures, specifically Implementation Measure NA-I-7.1a, would reduce this impact to a **less than significant** level.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Noise & Air Quality Element

Goals

NA-G-7 Approval of new construction to include review of sensitive receptors.

Policies

NA-P-7.1 Utilize site planning and building design to reduce exposure to toxic air contaminants and PM_{2.5}.

Implementation Measures

NA-I-7.1a Future development that includes sensitive receptors such as schools, hospitals, day care centers, residential developments, and retirement homes located within specific setback distances from highways, railroads, local roadways, and stationary sources as described in the Martinez General Plan Environmental Impact Report will require a site-specific analysis to determine the level of Toxic Air Contaminants (TAC) and PM_{2.5} exposure. The analysis shall be conducted following procedures outlined by BAAQMD. If the site-specific analysis reveals significant exposures, such as cancer risk greater than 10 in one million or cumulative cancer risk greater than 100 in one million, additional measures shall be employed to reduce the risk to below the threshold. If this is not possible, the sensitive receptor shall be relocated.

- NA-I-7.1b Future non-residential developments will be evaluated through the CEQA process or BAAQMD permit process to ensure that they do not cause a significant health risk in terms of cancer risk greater than 10 in one million, acute or chronic hazards with a Hazard Index greater than 1.0, or annual PM_{2.5} exposure greater than 0.3 µg/m³, or a significant cumulative health risk in terms of excess cancer risk greater than 100 in one million, acute or chronic hazards with a Hazard Index greater than 10.0, or annual PM_{2.5} exposure greater than 0.8 µg/m³.
- NA-I-7.1c Air filtration systems installed shall be rated MERV-13 or higher and a maintenance plan for the air filtration system shall be implemented.
- NA-I-7.1d Trees and/or vegetation shall be required to provide a buffer between sensitive receptors and pollution sources when feasible. Trees that are best suited to trapping particulate matter shall be planted, including the following: Corsican pine (*Pinus nigra* var. *maritima*), Leyland cypress (*x Cupressocyparis leylandii*), hybrid poplar (*Populus deltoides x trichocarpa*), and coast redwood (*Sequoia sempervirens*).
- NA-1-7.1e Sites shall be designed to locate sensitive receptors as far away as possible from freeways, roadways, refineries, diesel generators, and distribution centers.
- NA-1-7.1f Improve indoor air quality by reviewing development plans to ensure that operable windows, balconies, and building air intakes are located as far away as possible from pollution sources. If near a distribution center, residential units shall not be located immediately adjacent to a loading dock or where trucks concentrate to deliver goods.

Impact 4.3-4: General Plan implementation would not result in other emissions (such as those leading to odors adversely affecting a substantial number of people) (Less than Significant)

Future construction activities could result in odorous emissions from diesel exhaust associated with construction equipment. However, because of the temporary nature of these emissions and the highly diffusive properties of diesel exhaust, exposure of sensitive receptors to these emissions would be limited.

Subsequent land use activities associated with implementation of the General Plan Update could allow for the development of uses that have the potential to produce odorous emissions either during the construction or operation of future development. Additionally, subsequent land use activities may allow for the construction of sensitive land uses (i.e., residential development, schools, parks, offices, etc.) near existing or future sources of odorous emissions.

Significant sources of offending odors are typically identified based on complaint histories received and compiled by BAAQMD. According to the BAAQMD CEQA Guidelines, an odor source with five or more confirmed complaints per year averaged over three years is considered to have a significant impact. Typically, larger sources of odors that result in complaints are wastewater treatment facilities, landfills including composting operations, food processing facilities, and chemical plants. Other sources, such as restaurants, paint or body shops, and coffee roasters typically result in

4.3 AIR QUALITY

localized sources of odors. Table 4.3-7 identifies screening buffers included in the BAAQMD CEQA Air Quality Guidelines for those uses more typically associated with having the potential to be sources of odors. To avoid significant impacts, the BAAMQD CEQA Guidelines recommend that buffer zones to avoid adverse impacts from odors should be reflected in local plan policies, land use maps, or implementing ordinances.

TABLE 4.3-7: ODOR SCREENING DISTANCES FOR THE GENERAL PLAN UPDATE

Land Use/Type of Operation	Project Screening Distance
Wastewater Treatment Plant	2 miles
Wastewater Pumping Facilities	1 mile
Sanitary Landfill	2 miles
Transfer Station	1 mile
Composting Facility	1 mile
Asphalt Batch Plant	2 miles
Chemical Manufacturing	2 miles
Fiberglass Manufacturing	1 mile
Painting/Coating Operations	1 mile
Coffee Roaster	1 mile
Food Processing Facility	1 mile
Green Waste and Recycling Operations	1 mile

The Study Area includes potential odor sources that could affect new sensitive receptors. Most of these major existing sources are already buffered. However, it is possible that odors may be present. Responses to odors are subjective, and vary by individual and type of use. Sensitive land uses that include outdoor uses, such as residences and possibly daycare facilities, are likely to be most affected by existing odors. The General Plan Update includes policies and implementation measures that address potential conflicts in land uses that could result in odor complaints. Proposed General Plan Update Noise & Air Quality Element Implementation Measure NA-I-8.1.a requires consultation with BAAQMD to identify the potential for odor sources from proposed development projects where the development could have the potential to adversely affect existing or planned sensitive receptors. Implementation Measures NA-I-8.1b and NA-I-8.1c would prohibit uses that may produce odors with the potential to result in frequent odor complaints and prohibit sensitive receptors from locating near odor sources where frequent odor complaints are likely, unless it can be shown that the odors can be mitigated. Additionally, the policies and implementation measures included as part of the General Plan Update (described above) would reduce mobile and stationary source emissions and odors associated with diesel fuel by focusing on land use patterns that improve air quality, reduce air pollution from stationary sources, and encourage/enable increased transit behavior. Thus, General Plan Update implementation would not result in other emissions (such as those leading to odors adversely affecting a substantial number of people) and impacts would be **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Noise & Air Quality Element

Goals

NA-G-8 Reduce potential odor sources.

Policies

NA-P-8.1 Coordinate land use planning to prevent odors and odor complaints.

Implementation Measures

NA-I-8.1a Consult with BAAQMD to identify the potential for odor sources from proposed development projects where the development could have the potential to adversely affect existing or planned sensitive receptors.

NA-I-8.1b Review proposed development and prohibit uses that may produce odors that have the potential to result in frequent odor complaints unless the development proposal can exhibit methods to mitigate such odors.

NA-I-8.1c To the extent allowed by State law, prohibit sensitive receptors from locating near odor sources where frequent odor complaints are likely to occur, unless it can be shown that potential odor complaints can be mitigated.

4.3.4 CUMULATIVE IMPACTS

The cumulative air quality impacts are analyzed based on development within the Study Area. No specific development projects are proposed or would be approved as part of the General Plan Update. Construction of the individual development projects allowed under the land use designations of the proposed General Plan Update have the potential to result in construction-related air quality impacts. Further, impacts resulting from potential development of the Study Area could include substantial grading, site preparation, and an increase in urbanized development. Additionally, increased development in the County, including the Study Area, would contribute to cumulative operational air quality impacts, including from increases in mobile source emissions, energy consumption, and other contributors to air quality impacts.

While some cumulative impacts would occur in the region as individual projects are constructed, the proposed General Plan Update policies and implementation measures, as well as State and federal regulations, would substantially reduce the project's contribution to impacts. Considering the protection granted by local, State, and federal agencies and their permit and monitoring requirements, as discussed previously under impacts 4.3-1 through 4.3-4, and with implementation of the policies and implementation measures included within the General Plan Update, the overall cumulative impact would be reduced. However, there is the potential for cumulative future development to result in a cumulatively considerable net increase in criteria pollutants for which

the region is in nonattainment. As a result, the General Plan Update's incremental contribution to cumulative air quality impacts would be considered **cumulatively considerable** and **significant and unavoidable**.

4.3.5 SIGNIFICANT UNAVOIDABLE IMPACTS

Impacts to air quality associated with the implementation of the General Plan Update would be less than significant, with the exception of the potential for individual projects to generate cumulatively considerable net increases in criteria pollutants, which would be **significant and unavoidable** under project and cumulative project conditions.

4.3.6 REFERENCES

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- Bay Area Air Quality Management District. 2022a. Community Air Risk Evaluation Program. Last Updated 4/15/2022. Available: <https://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program>.
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This section describes biological resources in the Study Area, including a background discussion of the bioregions, regionally important habitat and wildlife, and special status species found in the vicinity of Martinez. This section is organized with an environmental setting, regulatory setting, and impact analysis.

Several comments were received that referenced biological resource topics. Each of these comments are included within Appendix A of this document. Comments related to biological resources are briefly summarized below:

- Noise and its potential impact to flora/fauna that use parks;
- Building heights' effect on blocking cooling winds and shadow effects on wetlands;
- Impacts on biological resources from land conversion; and
- Impacts on flora and fauna in the immediately adjacent park and open space land and on the entire waterfront.

It should be noted that environmental impact discussions specifically related to noise and the potential for noise impacts are included within Section 4.11, Noise. Impacts related to the conversion of farmlands, and the loss of farmland is discussed in detail in Section 4.2, Agricultural Resources.

KEY TERMS

The following key terms are used throughout this section to describe biological resources and the framework that regulates them:

Hydric Soils. One of the three wetland identification parameters, according to the federal definition of a wetland, hydric soils have characteristics that indicate they were developed in conditions where soil oxygen is limited by the presence of saturated soil for long periods during the growing season. There are approximately 2,000 named soils in the United States that may occur in wetlands.

Hydrophytic Vegetation. Plant types that typically occur in wetland areas. Nearly 5,000 plant types in the United States may occur in wetlands. Plants are listed in regional publications of the U.S. Fish and Wildlife Service (USFWS) and include such species as cattails, bulrushes, cordgrass, sphagnum moss, bald cypress, willows, mangroves, sedges, rushes, arrowheads, and water plantains.

Sensitive Natural Community. A sensitive natural community is a biological community that is regionally rare, provides important habitat opportunities for wildlife, is structurally complex, or is in other ways of special concern to local, State, or federal agencies. CEQA identifies the elimination or substantial degradation of such communities as a significant impact. The California Department of Fish and Wildlife (CDFW) tracks sensitive natural communities in the California Natural Diversity Database (CNDDDB).

Special-Status Species. Special-status species are those plants and animals that, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, are recognized by federal, State, or other agencies. Some of these species receive specific protection that is defined by federal or State endangered species legislation. Others have been designated as

4.4 BIOLOGICAL RESOURCES

"sensitive" on the basis of adopted policies and expertise of State resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. These species are referred to collectively as "special status species" in this report, following a convention that has developed in practice but has no official sanction. For the purposes of this assessment, the term "special status" includes those species that are:

- Federally listed or proposed for listing under the Federal Endangered Species Act (50 CFR 17.11-17.12);
- Candidates for listing under the Federal Endangered Species Act (61 FR 7596-7613);
- State listed or proposed for listing under the California Endangered Species Act (14 CCR 670.5);
- Species listed by the USFWS or the CDFW as a species of concern (USFWS), rare (CDFW), or of special concern (CDFW);
- Fully protected animals, as defined by the State of California (California Fish and Game Code Section 3511, 4700, and 5050);
- Species that meet the definition of threatened, endangered, or rare under CEQA (CEQA Guidelines Section 15380);
- Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code Section 1900 et seq.); and
- Plants listed by the California Native Plant Society (CNPS) as rare, threatened, or endangered (List 1A and List 2 status plants in Skinner and Pavlik 1994).

Waters of the U.S. The Federal government defines waters of the U.S. as "lakes, rivers, streams, intermittent drainages, mudflats, sandflats, wetlands, sloughs, and wet meadows" [33 C.F.R. §328.3(a)]. Waters of the U.S. exhibit a defined bed and bank and ordinary high water mark (OHWM). The OHWM is defined by the USACE as "that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" [33 C.F.R. §328.3(e)].

Wetlands. Wetlands are ecologically complex habitats that support a variety of both plant and animal life. The Federal government defines wetlands as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" [33 C.F.R. §328.3(b)]. Wetlands require wetland hydrology, hydric soils, and hydrophytic vegetation. Examples of wetlands include freshwater marsh, seasonal wetlands, and vernal pool complexes that have a hydrologic link to waters of the U.S.

4.4.1 ENVIRONMENTAL SETTING

Martinez is a relatively small city in central Contra Costa County that has a total area of approximately 10,700 acres within the Study Area of which approximately 6,910 acres are within the incorporated city limits.

The City of Martinez is the County seat, located on the south side of the Carquinez Strait. The City is bordered by Carquinez Strait and Solano County to the north, the Cities of Pleasant Hill and Concord to the southeast, and unincorporated Contra Costa County to the west and northeast.

BIOREGIONS

Martinez is located within the Bay Area/Delta Bioregion. The Bay Area/Delta Bioregion extends from the Pacific Ocean to the Sacramento Valley and San Joaquin Valley bioregions to the northeast and southeast, and a short stretch of the eastern boundary joins the Sierra Bioregion at Amador and Calaveras counties. The bioregion is bounded by the Klamath/North Coast on the north and the Central Coast Bioregion to the south. The Bay Area/Delta Bioregion is one of the most populous areas of the State, encompassing the San Francisco Bay Area and the Sacramento-San Joaquin River Delta. The water that flows through the Delta supplies two-thirds of California's drinking water, irrigating farmland, and sustaining fish and wildlife and their habitat. The bioregion fans out from San Francisco Bay in a jagged semi-circle that takes in all or part of 12 counties: Alameda, Contra Costa, Marin, Napa, San Francisco, San Joaquin, San Mateo, Santa Clara, Solano, Sonoma, and parts of Sacramento and Yolo. The habitats and vegetation of the Bay Area/Delta Bioregion are as varied as the geography.

CALIFORNIA WILDLIFE HABITAT RELATIONSHIP SYSTEM

The California Wildlife Habitat Relationship (CWHR) habitat classification scheme has been developed to support the CWHR System, a wildlife information system and predictive model for California's regularly-occurring birds, mammals, reptiles, and amphibians. When first published in 1988, the classification scheme had 53 habitats. At present, there are 59 wildlife habitats in the CWHR System: 27 tree, 12 shrub, six herbaceous, four aquatic, eight agricultural, one developed, and one non-vegetated.

According to the California Wildlife Habitat Relationship System there are 19 cover types (wildlife habitat classifications) in the Study Area out of 59 found in the State. These include: Annual Grassland, Blue Oak Woodland, Coastal Oak Woodland, Coastal Scrub, Cropland, Estuarine, Eucalyptus, Evergreen Orchard, Fresh Emergent Wetland, Lacustrine, Mixed Chaparral, Montane Hardwood, Perennial Grassland, Saline Emergent Wetland, Urban, Valley Foothill Riparian, Valley Oak Woodland, Vineyard, and Water. Figure 4.4-1 illustrates the location of each cover type (wildlife habitat classification) within Martinez and Table 4.4-1 shows each land cover type within the Study Area and their respective acreages.

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TABLE 4.4-1: LAND COVER TYPES

Land Cover Type ²	City	SOI	Total ¹
Annual Grassland	1,832.51	1,239.12	3,071.64
Blue Oak Woodland	686.61	187.31	873.92
Coastal Oak Woodland	299.03	108.66	407.69
Coastal Scrub	5.02	--	5.02
Cropland	--	32.24	32.24
Estuarine	157.30	--	157.30
Eucalyptus	13.99	--	13.99
Evergreen Orchard	3.75	0.92	4.67
Fresh Emergent Wetland	23.27	116.15	139.42
Lacustrine	564.15	114.81	678.96
Mixed Chaparral	3.57	--	3.57
Montane Hardwood	9.21	--	9.21
Perennial Grassland	1.78	--	1.78
Saline Emergent Wetland	613.10	185.61	798.71
Urban	4,488.73	1,967.58	6,456.31
Valley Foothill Riparian	0.44	7.50	7.93
Valley Oak Woodland	109.55	61.04	170.60
Vineyard	--	20.68	20.68
Water	9.02	--	9.02
Total	8,821.02	4,041.64	12,862.66

SOURCE: FRAP FVEG-2015; CALIFORNIA STATE GEOPORTAL CONTRA COSTA COUNTY GIS. APRIL 27, 2022.

NOTES:

1. THAT THE SUM TOTALS MAY NOT BE EQUAL DUE TO ROUNDING.
2. LAND COVER TYPES INDICATE THE PHYSICAL LAND TYPE AND MAY NOT REFLECT HOW THE LAND IS BEING USED.

SPECIAL-STATUS SPECIES

The following discussion is based on a background search of special-status species that are documented in the California Natural Diversity Database (CNDDDB), the California Native Plant Survey (CNPS) Inventory of Rare and Endangered Plants, and the USFWS endangered and threatened species lists. The background search was both local and regional in scope and focused on the documented occurrences specifically within a one mile radius of the Study Area, and also present information within the larger 16-quad region.

The search revealed documented occurrences of 14 special status plants and 14 special status animals within one mile of Martinez Planning Area. Table 4.4-2 provides a list of special-status species that are documented within one mile of Martinez, their habitat, and current protective status. Figure 4.4-2 illustrates the special status species located within one mile of Martinez and Figure 4.4-3 illustrates the special status species located within the 16-quad regional search area.

TABLE 4.4-2: SPECIAL STATUS SPECIES PRESENT OR POTENTIALLY PRESENT (ONE MILE)

Species	Status	Habitat
Plants		
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	--; --;1B	Cismontane Woodland, Valley and Foothill grassland. Occurs at elevations between 50-500 meters (M).
<i>Blepharizonia plumosa</i> big tarplant	--;--;1B	Valley and foothill grassland. Dry hills and plains in annual grassland. Clay to clay-loam soils; usually on slopes and often in burned areas. 15-455M.
<i>Calochortus pulchellus</i> Mt. Diablo fairy-lantern	--;--;1B	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. On wooded and brushy slopes. 200-800M.
<i>Centromadia parryi ssp. Congdonii</i> Congdon's tarplant	--;--;1B	Valley and foothill grassland. Alkaline soils, sometimes described as heavy white clay. 1-230M.
<i>Chloropyron molle ssp. molle</i> soft salty bird's-beak	FE;CR;1B	Coastal salt marsh with distichlis, slaicornia, frankenia, etc. 0-3M.
<i>Cicuta maculata var. bolanderi</i> Bolander's water-hemlock	--;--;2	Marshes, fresh or brackish water. 0-200M.
<i>Eryngium jepsonii</i> Jepson's <i>coyote-thistle</i>	--; --;1B	
<i>Helianthella castanea</i> Diablo helianthella	--;--;1B	Broadleaved upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Usually in chaparral/oak woodland interface in rocky, azonal soils often in partial shade. 25-1150M.
<i>Isocoma arguta</i> Carquinez goldenbush	--;--;1B	Alkaline soils, flats, lower hills on low benches near drainages and on tops and sides of mounds in swale habitat. 1-20M.
<i>Lathyrus jepsonii var. jepsonii</i> Delta tule pea	--/--/1B	Freshwater or brackish marsh; 5-330 m
<i>Lilaeopsis masonii</i> Mason's lilaeopsis	--;CR;1B	Freshwater and brackish marshes, riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or river bank erosion. 0-10M.
<i>Spergularia macrotheca var. longistyla</i> <i>long-styled sand-spurrey</i>	--; --;1B	
<i>Symphyotrichum lentum</i> Suisun Marsh aster	--;--;1B	Marshes and swamps (brackish and freshwater). Most often seen along sloughs. 0-3M.
<i>Viburnum ellipticum</i> <i>oval-leaved viburnum</i>	--;--; 2	
Amphibians		
<i>Ambystoma californiense</i> California tiger salamander	FT/CT (CSC)	Need underground refuges, especially ground squirrel burrows and vernal pools or other seasonal water sources for breeding.

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Species	Status	Habitat
<i>Rana aurora draytoni</i> California red-legged frog	FT/CSC	Permanent and semi-permanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation. May estivate in rodent burrows or cracks during dry periods.
Birds		
<i>Agelaius tricolor</i> tricolored blackbird	FSC/CSC	Highly colonial species, most numerous in central valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.
<i>Athene cuniculari</i> Burrowing owl	FSC/CSC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.
<i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat	FSC/CSC	Resident of the San Francisco Bay region, in fresh and saltwater marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.
<i>Laterallus jamaicensis coturniculus</i> California black rail	--/CT	Tidal salt marshes associated with heavy growth of pickleweed; also occurs in brackish marshes or freshwater marshes at low elevations
<i>Melospiza melodia maxillaris</i> Suisun song sparrow	--/CSC	Resident of brackish water marshes surrounding Suisun Bay. Inhabits cattails, tules and other sedges, and salicornia; also known to frequent tangles bordering sloughs.
<i>Rallus longirostris obsoletus</i> California clapper rail	CE/CE	Salt-water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs.
Fish		
<i>Spirinchus thaleichthys</i> longfin smelt	FC/CT	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column.
Invertebrates		
<i>Helminthoglypta nickliniana bridgesi</i> Bridges' coast range shoulderband	--/--	Inhabits open hillsides of Alameda and Contra Costa Counties. Tends to colonize under tall grasses and weeds.
<i>Linderiella occidentalis</i> California linderiella	--/--	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. Water in the pools has very low alkalinity, conductivity, and TDS.

Species	Status	Habitat
Mammals		
<i>Nyctinomops</i> Big free-tailed bat	--/CSC	Occurs in low lying arid areas in southern California. They need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.
<i>Reithrodontomys raviventris</i> salt-marsh harvest mouse	FE/CE	Only in saline emergent wetlands of San Francisco Bay and its tributaries. Pickleweed is primary habitat. Do not burrow, build loosely organized nests. Require higher areas for flood escape.
Reptiles		
<i>Actinemys marmorata</i> western pond turtle	--/CSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat for egg-laying.

SOURCE: CDFW CNDDDB VERSION 4/1/2022.

NOTES: STATUS IS SHOWN FOR (FEDERAL, STATE, CNPS). () INDICATES NO LISTING STATUS.

ABBREVIATIONS:

FE FEDERAL ENDANGERED

FT FEDERAL THREATENED

FC FEDERAL CANDIDATE

FSC FEDERAL SPECIES OF CONCERN

FD FEDERAL DELISTED

MBTA PROTECTED BY MIGRATORY BIRD TREATY ACT

CE CALIFORNIA ENDANGERED

CT CALIFORNIA THREATENED

CP CALIFORNIA FULLY PROTECTED UNDER §3511, 4700, 5050 AND 5515 FG CODE

CSC CDFW SPECIES OF SPECIAL CONCERN

CR CALIFORNIA RARE (PROTECTED BY NATIVE PLANT PROTECTION ACT)

1B CNPS - RARE, THREATENED, OR ENDANGERED

2 CNPS - RARE, THREATENED, OR ENDANGERED IN CALIFORNIA, BUT MORE COMMON ELSEWHERE

4 CNPS - PLANTS OF LIMITED DISTRIBUTION - A WATCH LIST

Sensitive Natural Communities

The CDFW considers sensitive natural communities to have significant biotic value, with species of plants and animals unique to each community. The CNDDDB search revealed two sensitive natural communities within one mile of Martinez. This includes Coastal Brackish Marsh and Northern Coastal Salt Marsh. Both community types were once more widely distributed throughout California, but have been modified or destroyed by grazing, cultivation, and urban development. Since the remaining examples of these sensitive natural communities are under continuing threat from future development, CDFW considers them “highest inventory priorities” for future conservation. The two sensitive natural communities documented within one mile of Martinez, are located along the waterfront.

4.4.2 REGULATORY SETTING

There are several regulatory agencies whose responsibility includes the oversight of the natural resources of the State and nation including CDFW, USFWS, the U.S. Army Corps of Engineers (USACE), and the National Marine Fisheries Service (NMFS). These agencies often respond to declines in the quantity of a particular habitat or plant or animal species by developing protective measures for those species or habitat type. The following is an overview of the federal, State, and local regulations that are applicable to implementing the General Plan.

FEDERAL

Federal Endangered Species Act

Federally listed threatened and endangered species and their habitats are protected under provisions of the Federal Endangered Species Act (FESA) of 1973. FESA Section 9 prohibits “take” of threatened or endangered species. “Take” under the FESA is defined as to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of the specifically enumerated conduct.” The presence of any Federally threatened or endangered species that are in a project area generally imposes severe constraints on development, particularly if development would result in “take” of the species or its habitat. Under the regulations of the FESA, the USFWS may authorize “take” when it is incidental to, but not the purpose of, an otherwise lawful act.

“Harm” has been defined by the regulations of the USFWS to include types of “significant habitat modification or degradation.” The U.S. Supreme Court, in *Babbitt v. Sweet Home*, 515 U.S. 687, ruled that “harm” may include habitat modification “...where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.” Activities that may result in “take” of individuals are regulated by USFWS.

Under the FESA, “Critical Habitat” is also designated at the time of listing or within one year of listing. “Critical Habitat” refers to habitat or a specific geographic area that contains the elements and features that are essential for the survival and recovery of the species. In the event a project may result in take or in adverse effects to a species’ designated Critical Habitat, the project proponent may be required to provide mitigation. If the project has a federal nexus (i.e., occurs on federal land, is issued federal permits, or receives any other federal oversight or funding), the proponent would be required to enter into Section 7 informal and/or formal consultations with the USFWS to obtain, if possible, a biological opinion allowing for incidental take of the species in question. If the project is on private land or would not require any federal permits, the proponent would be required to prepare a habitat management plan to address the impacts.

The FESA defines as “endangered” any plant or animal species that is in danger of extinction throughout all or a significant portion of its range. A “threatened” species is a species that is likely to become endangered in the foreseeable future. A “proposed” species is one that has been officially proposed by USFWS for addition to the federal threatened and endangered species list.

USFWS produced an updated list of candidate species for listing in June 2002 (Federal Register: Volume 67, Number 114, 50 CFR Part 17 2002). Candidate species are regarded by USFWS as

candidates for addition to the “List of Endangered and Threatened Wildlife and Plants.” Although candidate species are not afforded legal protection under the FESA, they typically receive special attention from federal and State agencies during the environmental review process.

USFWS also uses the label “species of concern,” an informal term that refers to species which might be in need of concentrated conservation actions. As the species of concern designated by USFWS do not receive formal legal protection, the use of the term does not necessarily ensure that the species would be proposed for listing as a threatened or endangered species.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 United States Government Code [USC] 703) makes it unlawful to pursue, capture, kill, or possess or attempt to do the same to any migratory bird or part, nest, or egg of any such bird listed in wildlife protection treaties between the United States, Great Britain, Mexico, Japan, and the countries of the former Soviet Union, and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 USC 703; 50 CFR 10, 21).

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act provides for the protection of the bald eagle (*Haliaeetus leucocephalus*) and the golden eagle (*Aquila chrysaetos*) by prohibiting, except under certain specified conditions, the taking, possession, and commerce of such birds (16 U.S. Government Code Section 668(a)). “Take” under the Act includes actions which significantly disturb eagles (50 CFR Section 22.3). 1972 amendments increased penalties for violating provisions of the Act and strengthened other enforcement measures. A 1978 amendment authorized the Secretary of the Interior to permit the taking of golden eagle nests that interfere with resource development or recovery operations, and recent amendments authorize USFWS to issue permits for incidental and practically unavoidable take of eagles.

Clean Water Act – Section 404

Clean Water Act (CWA) Section 404 requires that a permit be obtained from the United States Army Corps of Engineers (Corps) prior to the discharge of dredged or fill materials into any “waters of the United States or wetlands.” Waters of the United States are broadly defined in the Corps regulations (33 CFR 328) to include navigable waterways, their tributaries, lakes, ponds, and wetlands. Wetlands are defined as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that normally do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas” (United States Environmental Protection Agency [EPA] 2021) Wetlands that are not specifically exempt from Section 404 regulations (such as drainage channels excavated on dry land) are considered to be “jurisdictional wetlands.” In a recent Supreme Court Case, the Court acted to limit the regulatory jurisdiction of the Corps under CWA Section 404 as it applies to adjacent waters (USSC 2001). Specifically, the Court ruled that waters that are non-navigable, isolated, and intrastate are not subject to the Corps jurisdiction (Guzy and Anderson

4.4 BIOLOGICAL RESOURCES

2001). The Corps is required to consult with the USFWS, EPA, and State Regional Water Quality Control Board (RWQCB), among other agencies, in carrying out its discretionary authority under Section 404.

The Corps grants two types of permits, individual and nationwide. Project-specific individual permits are required for certain activities that may have a potential for more than a minimal impact and necessitate a detailed application. The most common type of permit is a nationwide permit. Nationwide permits authorize activities on a nationwide basis unless specifically limited and are designed to regulate with little delay or paperwork certain activities having minimal impacts. Nationwide permits typically take two to three months to obtain whereas individual permits can take a year or more. To qualify for a nationwide permit, specific criteria must be met. If the criteria restrictions are met, permittees may proceed with certain activities without notifying the Corps. Some nationwide permits require a pre-construction notification before activities can begin.

Clean Water Act – Section 401

Applicants for a federal license or permit for activities which may discharge to waters of the U.S. must seek Water Quality Certification from the State or Indian tribe with jurisdiction. Such Certification is based on a finding that the discharge would meet water quality standards and other applicable requirements. In California, RWQCBs issue or deny Certification for discharges within their geographical jurisdiction. Water Quality Certification must be based on a finding that the proposed discharge would comply with water quality standards, which are defined as numeric and narrative objectives in each RWQCB's Basin Plan. Where applicable, the State Water Resources Control Board (SWRCB) has this responsibility for projects affecting waters within the jurisdiction of multiple RWQCBs. The RWQCB's jurisdiction extends to all waters of the State and to all waters of the U.S., including wetlands.

CWA Section 401 requires that “any applicant for a federal permit for activities that involve a discharge to waters of the State, shall provide the federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge would comply with the applicable provisions under the federal Clean Water Act.” Therefore, before the Corps would issue a Section 404 permit, applicants must apply for and receive a Section 401 water quality certification from the RWQCB.

Department of Transportation Act - Section 4(f)

Section 4(f) has been part of federal law since 1966. It was enacted as Section 4(f) of the Department of Transportation (DOT) Act of 1966 and set forth in Title 49 United States Code (U.S.C.), Section 1653(f). In January 1983, as part of an overall recodification of the DOT Act, Section 4(f) was amended and codified in 49 U.S.C. Section 303. This law established policy on Lands, Wildlife and Waterfowl Refuges, and Historic Sites as follows:

It is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites. The Secretary of Transportation shall cooperate and consult with the Secretaries of the Interior, Housing and Urban Development, and

Agriculture, and with the States, in developing transportation plans and programs that include measures to maintain or enhance the natural beauty of lands crossed by transportation activities or facilities. The Secretary of Transportation may approve a transportation program or project (other than any project for a park road or parkway under section 204 of title 23) requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of a historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if: a) There is no prudent and feasible alternative to using that land; and b) The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

STATE

Fish and Game Code §2050-2097 - California Endangered Species Act

State-listed threatened and endangered species are protected under provisions of the California Endangered Species Act (CESA). Activities that may result in “take” of individuals (defined in CESA as to “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”) are regulated by the CDFW. Habitat degradation or modification is not included in the definition of “take” under CESA. Nonetheless, CDFW has interpreted “take” to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is considered as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management. A rare species is one that is considered present in such small numbers throughout its range that it may become endangered if its present environment worsens. State threatened and endangered species are fully protected against take, as defined above.

The CDFW has also produced a Species of Special Concern list to serve as a species watch list. Species on this list are either of limited distribution or their habitats have been reduced substantially, such that a threat to their populations may be imminent. Species of special concern may receive special attention during environmental review, but they do not have formal statutory protection.

Fish and Game Code §1900-1913 California Native Plant Protection Act

Fish and Game Code Sections 1900 through 1913 were developed to preserve, protect, and enhance Rare and Endangered plants in the State of California. The act requires all State agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at least ten days in advance of any change in land use which would adversely impact

listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

California Fish and Game Code Sections 3503, 3503.5, 3511, 3513, 4700, 5050, and 5515

The CDFW administers the Fish and Game Code. There are particular sections of the Fish and Game Code that are applicable to natural resource management. For example, Section 3503 of the Code makes it unlawful to destroy the nests or eggs of any birds that are protected under the MBTA. Furthermore, any birds in the orders Falconiformes or Strigiformes (Birds of Prey, such as hawks, eagles, and owls) are protected under Fish and Game Code Section 3503.5 which makes it unlawful to take, possess, or destroy their nest or eggs. A consultation with CDFW would be required prior to the removal of any bird of prey nest that may occur on a project site. Fish and Game Code Sections 3511, 4700, 5050, and 5515 list fully protected bird, mammal, reptile and amphibian, and fish species, respectively. The CDFW is unable to authorize the issuance of permits or licenses to take these species. Examples of species that are State fully protected include golden eagle and white-tailed kite (*Elanus leucurus*). Fish and Game Code Section 3513 makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

California Native Plant Society Rare or Endangered Plant Species

Vascular plants listed as rare or endangered by the CNPS, but which have no designated status under State and federal endangered species legislation are defined as follows:

- California Rare Plant Rank
 - 1A. Plants Presumed Extirpated in California and either Rare or Extinct Elsewhere
 - 1B. Plants Rare, Threatened, or Endangered in California and Elsewhere
 - 2A. Plants Presumed Extirpated in California, But More Common Elsewhere
 - 2B. Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
 3. Plants about Which More Information is Needed - A Review List
 4. Plants of Limited Distribution - A Watch List
- Threat Ranks
 1. Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
 2. Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)
 3. Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

Fish and Game Code §1601-1603 – Streambed Alteration

California Fish and Game Code Sections 1600 through 1616 establish a fee-based process to ensure that projects conducted in and around lakes, rivers, or streams do not adversely impact fish and wildlife resources, or, when adverse impacts cannot be avoided, ensures that adequate mitigation and/or compensation is provided.

Fish and Game Code Section 1602 requires any person, State, or local governmental agency or public utility to notify the CDFW before beginning any activity that would do one or more of the following:

- Substantially obstruct or divert the natural flow of a river, stream, or lake;
- Substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or
- Deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State. CDFW's regulatory authority extends to include riparian habitat (including wetlands) supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. Generally, the CDFW takes jurisdiction to the top of bank of the stream or to the outer limit of the adjacent riparian vegetation (outer drip line), whichever is greater. Notification is generally required for any project that would take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation.

Public Resources Code § 21000 - California Environmental Quality Act

The California Environmental Quality Act (CEQA) identifies that a species that is not listed on the federal or State endangered species list may be considered rare or endangered if the species meets certain criteria. Under CEQA public agencies must determine if a project would adversely affect a species that is not protected by FESA or CESA. Species that are not listed under FESA or CESA, but are otherwise eligible for listing (i.e., candidate or proposed) may be protected by the local government until the opportunity to list the species arises for the responsible agency.

Species that may be considered for review are included on a list of "Species of Special Concern," developed by the CDFW. Additionally, the California Native Plant Society (CNPS) maintains a list of plant species native to California that have low numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. List 1A contains plants that are believed to be extinct. List 1B contains plants that are rare, threatened, or endangered in California and elsewhere. List 2 contains plants that are rare, threatened, or endangered in California, but more numerous elsewhere. List 3 contains plants where additional information is needed. List 4 contains plants with a limited distribution.

Public Resources Code § 21083.4 - Oak Woodlands Conservation

In 2004, the California legislature enacted SB 1334, which added oak woodland conservation regulations to the Public Resources Code. This new law requires a county to determine whether a project, within its jurisdiction, may result in a conversion of oak woodlands that will have a significant effect on the environment. If a county determines that there may be a significant effect to oak woodlands, the county must require oak woodland mitigation alternatives to mitigate the significant effect of the conversion of oak woodlands. Such mitigation alternatives include: conservation through the use of conservation easements; planting and maintaining an appropriate number of replacement trees; contribution of funds to the Oak Woodlands Conservation Fund for the purpose of purchasing oak woodlands conservation easements; and/or other mitigation measures developed by a city or county.

California Environmental Quality Act

CEQA Guidelines Section 15380 independently defines “endangered” and “rare” species separately from the definitions in the CESA. Under CEQA, “endangered” species of plants or animals are defined as those whose survival and reproduction in the wild are in immediate jeopardy, while “rare” species are defined as those who are in such low numbers that they could become endangered if their environment worsens.

California Oak Woodland Conservation Act

The California Legislature passed Assembly Bill 242, known as the California Oak Woodland Conservation Act, in 2001 as a result of widespread changes in land use patterns across the landscape that were fragmenting oak woodland character over extensive areas. The Act created the California Oak Woodland Conservation Program within the Wildlife Conservation Board. The legislation provides funding and incentives to ensure the future viability of California’s oak woodland resources by maintaining large scale land holdings or smaller multiple holdings that are not divided into fragmented, nonfunctioning biological units. The Act acknowledged that the conservation of oak woodlands enhances the natural scenic beauty for residents and visitors, increases real property values, promotes ecological balance, provides habitat for over 300 wildlife species, moderates temperature extremes, reduces soil erosion, sustains water quality, and aids with nutrient cycling, all of which affect and improve the health, safety, and general welfare of the residents of the State.

California Wetlands Conservation Policy

In August 1993, the Governor announced the "California Wetlands Conservation Policy." The goals of the policy are to establish a framework and strategy that will:

- Ensure no overall net loss and to achieve a long-term net gain in the quantity, quality, and permanence of wetland acreage and values in California in a manner that fosters creativity, stewardship, and respect for private property.
- Reduce procedural complexity in the administration of State and federal wetland conservation programs.
- Encourage partnerships to make landowner incentive programs and cooperative planning efforts the primary focus of wetland conservation and restoration.

The Governor also signed Executive Order W-59-93, which incorporates the goals and objectives contained in the new policy and directs the Resources Agency to establish an Interagency Task Force to direct and coordinate administration and implementation of the policy.

Natural Community Conservation Planning Act

The Natural Community Conservation Planning Act provides long-term protection of species and habitats through regional, multi-species planning before the special measures of the CESA become necessary.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act authorizes the State Water Resources Control Board (SWRCB) to regulate State water quality and protect beneficial uses.

San Francisco Bay Basin (Region 2) Water Quality Control Plan

The San Francisco Bay Region (Region) is 4,603 square miles, roughly the size of the State of Connecticut, and characterized by its dominant feature, 1,100 square miles of the 1,600 square mile San Francisco Bay Estuary (Estuary), the largest estuary on the west coast of the United States, where fresh waters from California's Central Valley mix with the saline waters of the Pacific Ocean. The Region also includes coastal portions of Marin and San Mateo counties, from Tomales Bay in the north to Pescadero and Butano Creeks in the south.

The San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan) includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses, and implementation measures. The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term "water quality standards," as used in the Federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels of quality that must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the Regional Water Quality Control Board (RWQCB) and others that are necessary to achieve and maintain the water quality standards.

The RWQCB regulates waste discharges to minimize and control their effects on the quality of the region's ground and surface water. Permits are issued under several programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means. Water quality problems in the region are listed in the Basin Plan, along with the causes, where they are known. For water bodies with quality below the levels necessary to allow all the beneficial uses of the water to be met, plans for improving water quality are included. The Basin Plan reflects, incorporates, and implements applicable portions of several national and statewide water quality plans and policies, including the California Water Code and the Clean Water Act.

LOCAL

City of Martinez Municipal Code

Title 8, Chapter 8.12 – Section 8.12.060, *Tree Protection*, of the City of Martinez Municipal Code (Code) is to establish policies, regulations, and standards to protect and to preserve existing trees and plantings. Chapter 8.12 is part of a comprehensive plan developed in the best interest of the community to regulate the protection of trees and to avoid damage to trees from development projects.

Title 8, Chapter 8.24 – Section 8.24.090, *Wild Animals and Birds*, states that “No person shall hunt, molest, harm, frighten, kill, trap, chase, tease, shoot or throw missiles or objects at any animal, reptile or bird; or remove or have in possession the young of any animal or the eggs or nest or young of any reptile or bird”.

4.4.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on biological resources if it will:

- 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;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service;
- 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;
- 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;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

CEQA Guidelines Section 15065(a), Mandatory Findings of Significance, states that a project may have a significant effect on the environment if it would have “... *the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare or threatened species ...*”

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional and/or local context. Substantial impacts would be those that would substantially diminish or result in the loss of, an important biological resource or those that would obviously conflict with local, State, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally adverse but not significant because, although they would result in an adverse alteration of existing conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population- or region-wide basis.

CEQA Guidelines Section 15380, *Endangered, Rare or Threatened Species*, states that a lead agency can consider a non-listed species to be Rare, Threatened, or Endangered for the purposes of CEQA if the species can be shown to meet the criteria in the definition of Rare, Threatened, or Endangered. For the purposes of this discussion, the current scientific knowledge on the population size and distribution for each special-status species was considered according to the definitions for Rare, Threatened, and Endangered listed in CEQA Guidelines Section 15380.

IMPACTS AND MITIGATION MEASURES

Impact 4.4-1: General Plan implementation could have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service (Less than Significant)

Approval of the proposed project would not directly approve or entitle any development or infrastructure projects. However, implementation of the General Plan Update and Land Use Map would allow and facilitate future development in Martinez, which could result in adverse impacts to special-status plant and wildlife species, as well as sensitive natural habitat or wildlife movement corridors. The following discussion is based on a background search of special-status species that are documented in the CNDDDB, the CNPS Inventory of Rare and Endangered Plants, and the USFWS endangered and threatened species lists. The background search was both local and regional in scope and focused on the documented occurrences specifically within a one mile radius of the planning area, as well as a separate search of occurrences within a 16-quad region.

Special-Status Plant Species

The search revealed documented occurrences of 14 special status plant species within a one-mile radius of Martinez. Table 4.4-2 provides a list of special-status plant species that are documented within one mile of Martinez, their habitat, and current protective status. Figures 4.4-2 and 4.4-3 illustrate the special status plant species located within one mile, and a 16-quad search area of Martinez, respectively. Of the 14 special status plant species within one mile of the Study Area, one is federally endangered and two are California protected (Protected by Native Plant Protection Act). The habitat requirements for these species range from wetland habitat such as marshes, sloughs, and riparian areas, to upland habitat such as woodland, valley and foothill grassland, chaparral.

4.4 BIOLOGICAL RESOURCES

Subsequent development under the proposed General Plan Update could result in the direct loss of habitat areas associated with these special-status plant species, since suitable habitat for these species does occur in the region. Additionally, indirect impacts to special-status plant species could occur with implementation of the General Plan Update. Indirect impacts could include habitat degradation as a result of impacts to water quality.

Special-status plant species receive protection from various federal and State laws and regulations, including FESA and CESA. These regulations generally prohibit the taking of the plant species without a special permit. Additionally, the proposed General Plan Update includes numerous policies and implementation measures intended to reduce or avoid impacts to special-status plant species. For example, Policy OSC-P-4.1 calls for the preservation and protection of special status plant and animal species consistent with the State and federal endangered species acts, including protection of their habitats. Policy OSC-P-4.3, calls for development to avoid sensitive habitat areas to the extent feasible, or mitigate to the maximum extent possible. Additionally, Implementation Measure OSC-I-4.1a calls for site specific reviews prior to development within identified sensitive habitat areas, and requires areas to be surveyed for special status plant and/or animal species. If any special status plant or animal species are found in areas proposed for development, the appropriate resource agencies shall be contacted and species-specific management strategies established to ensure the protection of the particular species.

Special-Status Wildlife Species

The search revealed documented occurrences of 14 special status animal species within one mile of Martinez. This includes: two amphibians, six birds, one fish, two invertebrates, two mammals, and one reptile. Table 4.4-2 provides a list of special-status animal species that are documented within one mile of Martinez, their habitat, and current protective status. Figure 4.4-2 illustrates the special status animal species located within one mile of Martinez. Of the 14 special status animal species, two are federally threatened, two are federally endangered, one is a federal candidate for listing, three are federal species of concern, three are State threatened, two are State endangered, and several are State species of special concern.

The habitat requirements for these species are wide ranging. They include wetland and aquatic habitat with seasonal, permanent, and semi-permanent water sources, open freshwater and saltwater habitat, including marshes, sloughs, and estuaries, and riparian areas. The habitat for these species also includes upland habitat such as various woodlands, valley and foothill grassland, chaparral, and rocky cliffs.

Subsequent development under the proposed General Plan Update could result in the direct loss of habitat areas associated with these special-status animal species, since suitable habitat for these species does occur in the region. Additionally, indirect impacts to special-status animal species could occur with implementation of the General Plan Update. Indirect impacts could include habitat degradation as a result of impacts to water quality, increased human presence, and the loss of foraging habitat.

As shown on the proposed General Plan Land Use Map (Figure 2-2), conservation, park, and open space land uses are found surrounding much of the Study Area. Existing areas within the City that

are undeveloped and in a naturalized condition with known significant biological resources or environmental constraints are primarily designated for open space and conservation uses by both the existing and proposed General Plan Land Use Maps. However, some lower intensity development, including residential and passive recreational facilities are allowed within some of these areas. Further, potential special status species could occur on properties anticipated by the General Plan Update for development.

Special-status animal species receive protection from various federal and State laws and regulations, including FESA and CESA. These regulations generally prohibit the taking of a species or direct impact to foraging and breeding habitat without a special permit. Additionally, the proposed General Plan Update includes numerous policies and implementation measures intended to reduce or avoid impacts to special-status animal species. These policies and measures, as described previously, include Policy OSC-P-4.1 which calls for the preservation and protection of special status plant and animal species consistent with the State and federal endangered species acts, including protection of their habitats. Policy OSC-P-4.3 calls for development to avoid sensitive habitat areas to the extent feasible, or mitigate to the maximum extent possible. Additionally, Implementation Measure, OSC-I-4.1a calls for site specific reviews prior to development within identified sensitive habitat areas, and requires areas to be surveyed for special status plant and/or animal species.

Conclusion

Construction and maintenance activities associated with future development projects under the proposed General Plan Update could result in the direct and indirect loss or indirect disturbance of special-status wildlife or plant species or their habitats that are known to occur, or have potential to occur, in the region. Impacts to special-status species or their habitat could result in a reduction in local population sizes, lowered reproductive success, or habitat fragmentation. Impacts on special-status species associated with individual subsequent projects could include:

- increased mortality caused by higher numbers of automobiles in new areas of development;
- direct mortality from the collapse of underground burrows, resulting from soil compaction;
- direct mortality resulting from the movement of equipment and vehicles through construction areas;
- direct mortality resulting from removal of trees with active nests;
- direct mortality or loss of suitable habitat resulting from the trimming or removal of obligate host plants;
- direct mortality resulting from fill of wetlands features;
- loss of breeding and foraging habitat resulting from the filling of seasonal or perennial wetlands;
- loss of breeding, foraging, and refuge habitat resulting from the permanent removal of riparian vegetation;

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- loss of suitable habitat for vernal pool invertebrates resulting from the destruction or degradation of vernal pools or seasonal wetlands;
- abandoned eggs or young and subsequent nest failure for special-status nesting birds, including raptors, and other non-special status migratory birds resulting from construction-related noises;
- loss or disturbance of rookeries and other colonial nests;
- loss of suitable foraging habitat for special-status raptor species;
- loss of migration corridors resulting from the construction of permanent structures or features; and
- impacts to fisheries/species associated with waterways.

Subsequent development projects will be required to comply with the General Plan Update and adopted State, federal, and local regulations for the protection of special status plants and wildlife, including habitat. The City of Martinez has prepared the General Plan Update to include numerous policies and implementation measures intended to protect special status plants and wildlife, including habitat, from adverse effects associated with future development and improvement projects. While future development has the potential to result in impacts to protected special status plants and wildlife, including habitat, the implementation of the policies and implementation measures listed below, as well as compliance with all federal and State regulations, would ensure that impacts to these resources would be **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Open Space and Conservation Element

Policies

- OSC-P-1.1 Where feasible and appropriate, preserve visually significant skyline vegetation, particularly major woodlands and ridgelines.
- OSC-P-1.4 Protect and enhance vegetation along the drainage channels of riparian zones. A riparian zone refers to the land area that encompasses the river channel and its current or potential floodplain.
- OSC-P-1.5 Support open space acquisition efforts by the East Bay Regional Parks District, the John Muir Land Trust, and other organizations.
- OSC-P-1.6 Preserve the visual quality of ridgelines by limiting or prohibiting development on or near ridgelines.
- OSC-P-1.7 Continue to coordinate with residents, developers, East Bay Regional Park District, and other groups to provide visual continuity between natural vegetation and developed areas using landscaping, planting street trees, and other “natural” buffers along natural areas.

- OSC-P-1.8 Ensure that development proposals include riparian corridor preservation, protection, and restoration.
- OSC-P-1.11 Maintain existing open space areas through implementation of the Protected Open Space and Parks Overlay (POPO) designation as set forth in Section 2.5 of the General Plan Land Use Element.
- OSC-P-2.3 Encourage grading alterations which do not induce or accelerate natural channel degradation, sheet erosion, gullying, and other forms of erosion, through adoption of conditions of approval as part of the development process.
- OSC-P-4.1 Preserve and protect special status plant and animal species in a manner consistent with the state and federal endangered species acts, including protection of their habitat.
- OSC-P-4.2 Preserve woodlands, marshes, and sensitive tree species such as oaks, black walnuts, and remove invasive exotics whenever possible or feasible.
- OSC-P-4.3 Development in sensitive habitat areas should be avoided or mitigated to the maximum extent possible.
- OSC-P-8.1 Water resources such as the Alhambra Creek Watershed, wetlands, flood plains, recharge zones, riparian areas, open space and native or natural habitat should be preserved.
- OSC-P-9.1 Protect and improve the quality of water in all of Martinez's watersheds, creeks, and water bodies.
- OSC-P-13.1 Promote Alhambra Creek as an integrated greenway.
- OSC-P-13.2 Limit and control public access in sensitive wildlife areas.
- OSC-P-13.3 Provide natural and artificial barriers to habitat in high public use areas.

Implementation Measures

- OSC-I-1.4a As a condition of approval for appropriately located development, require restoration and enhancement of adjacent riparian corridors.
- OSC-I-1.4b Collaborate with responsible agencies to plan and implement an integrated management plan for the long-term conservation and restoration of riparian and wetland habitats.
- OSC-I-1.10a Support programs to preserve open space lands. Consider a variety of methods to pursue public ownership and/or public use of open space lands, including fee simple purchase, secured options for the future purchase of land, installment contracts, purchase and lease-back, purchase (or acquire) less-than-fee interests, easements, transfer of development rights, rights of entry, land trades, or assistance by a land trust.

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- OSC-I-4.1a Prior to development within identified sensitive habitat areas, the area shall be surveyed for special status plant and/or animal species. If any special status plant or animal species are found in areas proposed for development, the appropriate resource agencies shall be contacted and species-specific management strategies established to ensure the protection of the particular species.
- OSC-I-4.1.b Participate with regional, state, and federal agencies and organizations to establish and preserve open space that provides habitat for locally present wildlife.
- OSC-P-4.1c Revise the design review guidelines and landscape ordinance to encourage the use of native plants in urban landscaping as a way to provide additional natural habitat for native wildlife.
- OSC-I-8.1a Require proposed projects located near watersheds or riparian areas to protect the natural resource consistent with flood management and recharge objectives.
- OSC-I-8.1b Consider completion and adoption of an Alhambra Creek Watershed Management Plan.
- OSC-I-9.1a Review all projects in watersheds to limit runoff and preserve water quality by requiring appropriate mitigation measures as part of development.
- OSC-I-13.1a Consider the adoption of a tree planting program for streets and other open spaces along the creek in which riparian-related plants are used to enhance and expand the corridor, visually enhance the space, support wildlife and fish habitat restoration, and provide additional shade.
- OCS-I-13.1b Continue to implement the Alhambra Creek Enhancement Program as both public CIP projects and through conditions of approval placed on development adjacent to Alhambra Creek.

Impact 4.4-2: General Plan implementation 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 Wildlife or U.S. Fish and Wildlife Service (Less than Significant)

The CDFW considers sensitive natural communities to have significant biotic value, with species of plants and animals unique to each community. The CNDDDB search revealed two sensitive natural communities within one mile of Martinez. This includes Coastal Brackish Marsh and Northern Coastal Salt Marsh. Both of these community types were once more widely distributed throughout California, but have been modified or destroyed by grazing, cultivation, and urban development. Since the remaining examples of these sensitive natural communities are under continuing threat from future development, CDFW considers them “highest inventory priorities” for future conservation. Of these two sensitive natural communities documented within one mile of Martinez, all are along the waterfront.

While not always documented as a sensitive natural community in the CNDDb, streams, rivers, wetlands, and vernal pools are of high concern because they provide unique aquatic habitat for many endemic species, including special-status plants, birds, invertebrates, and amphibians. The City of Martinez contains numerous aquatic habitats that qualify as sensitive habitat. Alhambra Creek and the Carquinez Strait are the most prominent water features in Martinez.

Conservation, park, and open space land uses are found surrounding much of the Study Area. Existing areas within the City that are undeveloped and in a naturalized condition with known significant biological resources or environmental constraints are primarily designated for open space and conservation uses by both the existing and proposed General Plan Land Use Maps. However, some lower intensity development, including residential and passive recreational facilities are allowed within some of these areas. Further, potential riparian habitat or other sensitive natural communities could occur on properties anticipated by the General Plan Update for development.

Subsequent development projects will be required to comply with the General Plan Update and adopted State, federal, and local regulations for the protection of sensitive natural communities, including riparian habitat and the waterfront area of the Carquinez Strait. The City of Martinez has prepared the General Plan Update to include numerous policies and implementation measures intended to protect sensitive natural communities from adverse effects associated with future development and improvement projects. For example, Policy OSC-P-1.4 calls for the protection and enhancement of riparian vegetation along the drainage channels designated as riparian zones. Policy OSC-P-14.1 calls for the City to protect and preserve open space and remaining natural areas, including, oak/woodland, riparian vegetation, creeks, saltwater and freshwater marsh, native grasslands, wildlife corridors, and sensitive nesting and habitat areas, while Policy OSC-P-14.7 call for limited development in areas which support special status species.

While future development has the potential to result in significant impacts to protected habitats, the implementation of the policies and implementation measures listed below, as well as compliance with federal and State regulations, would ensure at the program level impacts to these resources would be **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Open Space and Conservation Element

Policies

- OSC-P-1.1 Where feasible and appropriate, preserve visually significant skyline vegetation, particularly major woodlands and ridgelines.
- OSC-P-1.4 Protect and enhance vegetation along the drainage channels of riparian zones. A riparian zone refers to the land area that encompasses the river channel and its current or potential floodplain.
- OSC-P-1.5 Support open space acquisition efforts by the East Bay Regional Parks District, the John Muir Land Trust, and other organizations.

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- OSC-P-1.6 Preserve the visual quality of ridgelines by limiting or prohibiting development on or near ridgelines.
- OSC-P-1.7 Continue to coordinate with residents, developers, East Bay Regional Park District, and other groups to provide visual continuity between natural vegetation and developed areas using landscaping, planting street trees, and other “natural” buffers along natural areas.
- OSC-P-1.8 Ensure that development proposals include riparian corridor preservation, protection, and restoration.
- OSC-P-1.11 Maintain existing open space areas through implementation of the Protected Open Space and Parks Overlay (POPO) designation as set forth in Section 2.5 of the General Plan Land Use Element.
- OSC-P-4.1 Preserve and protect special status plant and animal species in a manner consistent with the state and federal endangered species acts, including protection of their habitat.
- OSC-P-4.2 Preserve woodlands, marshes, and sensitive tree species such as oaks, black walnuts, and remove invasive exotics whenever possible or feasible.
- OSC-P-4.3 Development in sensitive habitat areas should be avoided or mitigated to the maximum extent possible.
- OSC-P-8.1 Water resources such as the Alhambra Creek Watershed, wetlands, flood plains, recharge zones, riparian areas, open space and native or natural habitat should be preserved.
- OSC-P-9.1 Protect and improve the quality of water in all of Martinez’s watersheds, creeks, and water bodies.
- OSC-P-13.1 Promote Alhambra Creek as an integrated greenway.
- OSC-P-13.2 Limit and control public access in sensitive wildlife areas.
- OSC-P-13.3 Provide natural and artificial barriers to habitat in high public use areas.
- OSC-P-14.1 The City will, where feasible, protect and preserve open space and remaining natural areas, including, oak/woodland, riparian vegetation, creeks, saltwater and freshwater marsh, native grasslands, wildlife corridors, and sensitive nesting and habitat areas.
- OSC-P-14.2 Where feasible, all projects shall avoid impacts on wetlands. if not feasible, appropriate mitigation measures shall be implemented consistent with federal, state and local, laws, rules, regulations and policies.
- OSC-P-14.3 Recognize the US Army Corps of Engineers as the designated permitting agency that regulates wetlands.
- OSC-P-14.4 Provide the public appropriate access to wetlands.

OSC-P-14.5 When feasible, require full restoration or replanting of vegetation as part of development adjacent to riparian habitat.

OSC-P-14.6 Promote the preservation of wildlife corridors and habitat by including buffers and prohibition of development.

OSC-P-14.7 Limit development in areas which support special status species.

Implementation Measures

OSC-I-1.4a As a condition of approval for appropriately located development, require restoration and enhancement of adjacent riparian corridors.

OSC-I-1.4b Collaborate with responsible agencies to plan and implement an integrated management plan for the long-term conservation and restoration of riparian and wetland habitats.

OSC-I-1.10a Support programs to preserve open space lands. Consider a variety of methods to pursue public ownership and/or public use of open space lands, including fee simple purchase, secured options for the future purchase of land, installment contracts, purchase and lease-back, purchase (or acquire) less-than-fee interests, easements, transfer of development rights, rights of entry, land trades, or assistance by a land trust.

OSC-I-4.1a Prior to development within identified sensitive habitat areas, the area shall be surveyed for special status plant and/or animal species. If any special status plant or animal species are found in areas proposed for development, the appropriate resource agencies shall be contacted and species-specific management strategies established to ensure the protection of the particular species.

OSC-I-4.1.b Participate with regional, state, and federal agencies and organizations to establish and preserve open space that provides habitat for locally present wildlife.

OSC-P-4.1c Revise the design review guidelines and landscape ordinance to encourage the use of native plants in urban landscaping as a way to provide additional natural habitat for native wildlife.

OSC-I-8.1a Require proposed projects located near watersheds or riparian areas to protect the natural resource consistent with flood management and recharge objectives.

OSC-I-8.1b Consider completion and adoption of an Alhambra Creek Watershed Management Plan.

OSC-I-9.1a Review all projects in watersheds to limit runoff and preserve water quality by requiring appropriate mitigation measures as part of development.

OSC-I-13.1a Consider the adoption of a tree planting program for streets and other open spaces along the creek in which riparian-related plants are used to enhance and expand the

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corridor, visually enhance the space, support wildlife and fish habitat restoration, and provide additional shade.

OCS-I-13.1b Continue to implement the Alhambra Creek Enhancement Program as both public CIP projects and through conditions of approval placed on development adjacent to Alhambra Creek.

OCS-I-14.4a Continue to work with federal, state and local agencies to promote long term sustainability of natural resources.

OCS-I-14.4b Design public access to avoid or minimize disturbance to wetlands, consistent with the appropriate mitigation standards, with necessary buffer areas and associated wildlife habitat, while facilitating public access and enjoyment of wetlands as an open space resource. Consider ordinance amendments to require setbacks and/or other appropriate protection measures for wetlands.

OSC-I-14.4c Lands adjacent to riparian areas shall be protected as public or private open space through dedication or easements. Consider ordinance amendments to require setbacks and/or other appropriate protection measures for riparian habitat.

OCS-I-14.4d Condition projects or modify proposals to preserve natural transitions along the edges of habitat areas, requiring that adequate buffers are maintained between development and sensitive habitats, such as riparian corridors, marshlands, and oak woodlands.

Impact 4.4-3: General Plan implementation could have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (Less than Significant)

Streams, rivers, wet meadows, and vernal pools (wetlands and jurisdictional waters) are of high concern because they provide unique aquatic habitat (perennial and ephemeral) for many endemic species, including special-status plants, birds, invertebrates, and amphibians. These aquatic habitats oftentimes qualify as protected wetlands or jurisdictional waters and are protected from disturbance through the CWA.

The City of Martinez contains numerous aquatic habitats that qualify as federally protected wetlands and jurisdictional waters. The most prominent creek draining the watershed is Alhambra Creek, and its tributaries the Arroyo del Hambre and Franklin Creek. The City also fronts on the Carquinez Strait.

Alhambra Creek: Alhambra Creek originates in the hills of Briones Regional Park. The water flows from a tunnel in the side of the hill. The major tributaries are Arroyo del Hambre and Franklin Creek. The linear distance from the source to the mouth of Alhambra Creek is about six miles. For the first two miles, Alhambra creek descends from an elevation of approximately 1,100 feet to an elevation

of approximately 200 feet. At this point, it is joined by Arroyo del Hambre, which comes from a source at an elevation of approximately 900 feet, three miles to the west.

Arroyo del Hambre: Historically, the open grassy rolling hills of the upper part of this watershed were in agricultural use. Arroyo del Hambre begins here and flows through Vaca Canyon and Alhambra Valley. It is joined by several tributaries, among them Vaca Creek, on its way to join Alhambra Creek. Vaca Canyon is primarily a rural area with steep slopes covered with oak woodland and Alhambra Valley is a flat-bottomed alluvial valley.

Franklin Creek: Franklin Creek joins Alhambra Creek about two miles below the confluence of Alhambra and Arroyo del Hambre. Franklin Creek drains a subwatershed of roughly the same size as the combined Upper Alhambra and Arroyo del Hambre basins. It originates about three miles northwest of its confluence with Alhambra and flows southeast through Franklin Canyon then bends to the north to flow through the John Muir National Historic Site and joins Alhambra Creek between Walnut Avenue and Alhambra Way.

Section 404 of the CWA requires any project that involves disturbance to a wetland or water of the U.S. to obtain a permit that authorizes the disturbance. If a wetland or jurisdictional water is determined to be present, then a permit must be obtained from the USACE to authorize a disturbance to the wetland. Although subsequent projects may disturb protected wetlands and/or jurisdictional waters, the regulatory process that is established through Section 404 of the CWA ensures that there is “no net loss” of wetlands or jurisdictional waters. If, through the design process, it is determined that a future development project cannot avoid a wetland or jurisdictional water, then the USACE would require that there be an equal amount of wetland created elsewhere to mitigate any loss of wetland.

Construction and activities associated with individual future projects could result in the disturbance or loss of waters of the United States. This includes perennial and intermittent drainages; unnamed drainages; vernal pools; freshwater marshes; and other types of seasonal and perennial wetland communities. Wetlands and other waters of the United States could be affected through direct removal, filling, hydrological interruption (including dewatering), alteration of bed and bank, bridges, shading, and other development and construction-related activities.

Because the proposed project is a long-range planning document and does not include site-specific development, adoption of the proposed project would not directly impact the environment. There is a reasonable chance that water features could be impacted throughout the buildout of individual projects pursuant to the General Plan. Implementation of individual projects would require a detailed and site-specific review of the site to determine the presence or absence of water features. If water features are present and disturbance is required, federal and state laws require measures to reduce, avoid, or compensate for impacts to these resources. The requirements of these federal and state laws are implemented through the permit process.

Subsequent development projects will be required to comply with the General Plan Update and adopted state, federal, and local regulations for the protection of sensitive natural communities, including protected wetlands. The City of Martinez has prepared the General Plan Update to include

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numerous policies and implementation measures intended to protect wetlands and waters of the U.S. from adverse effects associated with future development and improvement projects.

Subsequent development projects will be required to comply with the General Plan Update and adopted state, federal, and local regulations for the protection of sensitive natural communities, including riparian habitat and the waterfront area of the Carquinez Strait. The City of Martinez has prepared the General Plan Update to include numerous policies and implementation measures intended to protect sensitive natural communities from adverse effects associated with future development and improvement projects. For example, Policy OSC-P-1.4 calls for the protection and enhancement of riparian vegetation along the drainage channels of riparian zones. Policy OSC-P-14.1 calls for the City to protect and preserve open space and remaining natural areas, including, oak/woodland, riparian vegetation, creeks, saltwater and freshwater marsh, native grasslands, wildlife corridors, and sensitive nesting and habitat areas. To further support riparian and wetland protection the General Plan Update includes Implementation Measure OSC-I-9.1a that requires the City review all projects in watersheds to limit runoff and preserve water quality by requiring appropriate mitigation measures as part of development. Additionally, Implementation Measure OSC-I-1.4b calls for collaboration with responsible agencies to plan and implement an integrated management plan for the long-term conservation and restoration of riparian and wetland habitats.

As described previously, conservation, park, and open space land uses are found surrounding much of the Study Area. Existing areas within the City that are undeveloped and in a naturalized condition with known significant biological resources or environmental constraints are primarily designated for open space and conservation uses by both the existing and proposed General Plan Land Use Maps. However, some lower intensity development, including residential and passive recreational facilities are allowed within some of these areas. Further, potential wetlands could occur on properties anticipated by the General Plan Update for development. As described under Policy OSC-P-1.4 the City aims to protect natural areas, including, riparian vegetation, creeks, saltwater and freshwater marshes. Future development projects would be reviewed for consistency with the General Plan Update and all relevant state and federal regulations protecting riparian areas, wetlands and marshes as described previously under the Regulatory Setting.

While future development has the potential to result in impacts to protected water features, the implementation of the policies and implementation measures identified previously, and listed below, as well as compliance with federal and state regulations, would ensure impacts to these resources as the program level would remain **less than significant**.

GENERAL PLAN POLICIES AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Open Space and Conservation Element

Policies

OSC-P-1.4 Protect and enhance vegetation along the drainage channels of riparian zones. A riparian zone refers to the land area that encompasses the river channel and its current or potential floodplain.

- OSC-P-1.8 Ensure that development proposals include riparian corridor preservation, protection, and restoration.
- OSC-P-2.3 Encourage grading alterations which do not induce or accelerate natural channel grading, sheet erosion, gullying and other forms of erosion, through adoption of conditions of approval as part of the development process.
- OSC-P-4.2 Preserve woodlands, marshes, and sensitive tree species such as oaks, black walnuts, and remove invasive exotics whenever possible or feasible.
- OSC-P-4.3 Development in sensitive habitat areas should be avoided or mitigated to the maximum extent possible.
- OSC-P-8.1 Water resources such as the Alhambra Creek Watershed, wetlands, flood plains, recharge zones, riparian areas, open space and native or natural habitat should be preserved.
- OSC-P-9.1 Protect and improve the quality of water in all of Martinez's watersheds, creeks, and water bodies.
- OSC-P-13.1 Promote Alhambra Creek as an integrated greenway.
- OSC-P-13.2 Limit and control public access in sensitive wildlife areas.
- OSC-P-13.3 Provide natural and artificial barriers to habitat in high public use areas.

Implementation Measures

- OSC-I-1.4a As a condition of approval for appropriately located development, require restoration and enhancement of adjacent riparian corridors.
- OSC-I-1.4b Collaborate with responsible agencies to plan and implement an integrated management plan for the long-term conservation and restoration of riparian and wetland habitats.
- OSC-I-4.1a Prior to development within identified sensitive habitat areas, the area shall be surveyed for special status plant and/or animal species. If any special status plant or animal species are found in areas proposed for development, the appropriate resource agencies shall be contacted and species-specific management strategies established to ensure the protection of the particular species.
- OSC-I-8.1a Require proposed projects located near watersheds or riparian areas to protect the natural resource consistent with flood management and recharge objectives.
- OSC-I-8.1b Consider completion and adoption of an Alhambra Creek Watershed Management Plan.
- OSC-I-9.1a Review all projects in watersheds to limit runoff and preserve water quality by requiring appropriate mitigation measures as part of development.

OSC-I-13.1a Consider the adoption of a tree planting program for streets and other open spaces along the creek in which riparian-related plants are used to enhance and expand the corridor, visually enhance the space, support wildlife and fish habitat restoration, and provide additional shade.

OCS-I-13.1b Continue to implement the Alhambra Creek Enhancement Program as both public CIP projects and through conditions of approval placed on development adjacent to Alhambra Creek.

Impact 4.4-4: General Plan implementation 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 (Less than Significant)

Habitat loss, fragmentation, and degradation resulting from land use changes or habitat conversion can alter the use and viability of wildlife movement corridors (i.e. linear habitats that naturally connect and provide passage between two or more otherwise disjunct larger habitats or habitat fragments). Wildlife habitat corridors maintain connectivity for daily movement, travel, mate-seeking, and migration; plant propagation; genetic interchange; population movement in response to environmental change or natural disaster; and recolonization of habitats subject to local extirpation or removal. The suitability of a habitat as a wildlife movement corridor is related to, among other factors, the habitat corridor's dimensions (length and width), topography, vegetation, exposure to human influence, and the species in question.

Species utilize movement corridors in several ways. "Passage species" are those species that use corridors as thru-ways between outlying habitats. The habitat requirements for passage species are generally less than those for corridor dwellers. Passage species use corridors for brief durations, such as for seasonal migrations or movement within a home range. As such, movement corridors do not necessarily have to meet any of the habitat requirements necessary for a "passage species" everyday survival. "Corridor dwellers" are those species that have limited dispersal capabilities – a category that includes most plants, insects, reptiles, amphibians, small mammals, and birds – and use corridors for a greater length of time.

Because the proposed project is a long-range planning document and thus, no physical changes will occur to the environment, adoption of the proposed project would not directly impact the environment. As described previously, conservation, park, and open space land uses are found surrounding much of the Study Area. Existing areas within the City that are undeveloped and in a naturalized condition with known significant biological resources or environmental constraints are primarily designated for open space and conservation uses by both the existing and proposed General Plan Land Use Maps. However, some lower intensity development, including residential and passive recreational facilities are allowed within some of these areas. Further, properties anticipated by the General Plan Update for development may, in conjunction with other properties, serve as potential movement corridors.

Future development projects would require a detailed and site-specific review to determine the presence or absence of movement corridors on a given site and the surrounding area. If movement corridors are present and disturbance is required, federal and state laws require measures to reduce, avoid, or compensate for impacts to these resources. The requirements of these federal and state laws are implemented through the permitting process.

Subsequent development projects will be required to comply with the General Plan Update and adopted state, federal, and local regulations for the protection of movement corridors. The City of Martinez has prepared the General Plan Update to include numerous policies and action measures intended to protect movement corridors from adverse effects associated with future development and improvement projects. For example Policy OSC-P-13.1 promotes Alhambra Creek as an integrated greenway. Policy OSC-P-1.8 ensures that development proposals include riparian corridor preservation, protection, and restoration, while Policy OSC-P-2.3 encourages grading alterations which do not induce or accelerate natural channel degradation, and other forms of erosion.

While future development has the potential to result in significant impacts to protected movement corridors, the implementation of the policies and implementation measures listed below, as well as federal and state regulations, would ensure impacts to these resources at the program level are **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Open Space and Conservation Element

Policies

- OSC-P-1.1 Where feasible and appropriate, preserve visually significant skyline vegetation, particularly major woodlands and ridgelines.
- OSC-P-1.4 Protect and enhance riparian vegetation along the drainage channels designated as Riparian Conservation Zones.
- OSC-P-1.5 Support open space acquisition efforts by the East Bay Regional Parks District, the John Muir Land Trust, and other organizations.
- OSC-P-1.7 Continue to coordinate with residents, developers, East Bay Regional Park District, and other groups to provide visual continuity between natural vegetation and developed areas using landscaping, planting street trees, and other “natural” buffers along natural areas.
- OSC-P-1.8 Ensure that development proposals include riparian corridor preservation, protection, and restoration.
- OSC-P-1.11 Maintain existing open space areas through implementation of the Protected Open Space and Parks Overlay (POPO) designation as set forth in Section 2.5 of the General Plan Land Use Element.

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- OSC-P-2.3 Encourage grading alterations which do not induce or accelerate natural channel degradation, sheet erosion, gullyng, and other forms of erosion, through adoption of conditions of approval as part of the development process.
- OSC-P-4.1 Preserve and protect special status plant and animal species in a manner consistent with the state and federal endangered species acts, including protection of their habitat.
- OSC-P-4.2 Preserve woodlands, marshes, and sensitive tree species such as oaks, black walnuts, and remove invasive exotics whenever possible or feasible.
- OSC-P-4.3 Development in sensitive habitat areas should be avoided or mitigated to the maximum extent possible.
- OSC-P-8.1 Water resources such as the Alhambra Creek Watershed, wetlands, flood plains, recharge zones, riparian areas, open space and native or natural habitat should be preserved.
- OSC-P-9.1 Protect and improve the quality of water in all of Martinez's watersheds, creeks, and water bodies.
- OSC-P-13.1 Promote Alhambra Creek as an integrated greenway.
- OSC-P-13.2 Limit and control public access in sensitive wildlife areas.
- OSC-P-13.3 Provide natural and artificial barriers to habitat in high public use areas.

Implementation Measures

- OSC-I-1.4a As a condition of approval for appropriately located development, require restoration and enhancement of adjacent riparian corridors.
- OSC-I-1.4b Collaborate with responsible agencies to plan and implement an integrated management plan for the long-term conservation and restoration of riparian and wetland habitats.
- OSC-I-1.10a Support programs to preserve open space lands. Consider a variety of methods to pursue public ownership and/or public use of open space lands, including fee simple purchase, secured options for the future purchase of land, installment contracts, purchase and lease-back, purchase (or acquire) less-than-fee interests, easements, transfer of development rights, rights of entry, land trades, or assistance by a land trust.
- OSC-I-4.1a Prior to development within identified sensitive habitat areas, the area shall be surveyed for special status plant and/or animal species. If any special status plant or animal species are found in areas proposed for development, the appropriate resource agencies shall be contacted and species-specific management strategies established to ensure the protection of the particular species.

- OSC-I-4.1.b Participate with regional, state, and federal agencies and organizations to establish and preserve open space that provides habitat for locally present wildlife.
- OSC-P-4.1c Revise the design review guidelines and landscape ordinance to encourage the use of native plants in urban landscaping as a way to provide additional natural habitat for native wildlife.
- OSC-I-8.1a Require proposed projects located near watersheds or riparian areas to protect the natural resource consistent with flood management and recharge objectives.
- OSC-I-8.1b Consider completion and adoption of an Alhambra Creek Watershed Management Plan.
- OSC-I-9.1a Review all projects in watersheds to limit runoff and preserve water quality by requiring appropriate mitigation measures as part of development.
- OSC-I-13.1a Consider the adoption of a tree planting program for streets and other open spaces along the creek in which riparian-related plants are used to enhance and expand the corridor, visually enhance the space, support wildlife and fish habitat restoration, and provide additional shade.
- OCS-I-13.1b Continue to implement the Alhambra Creek Enhancement Program as both public CIP projects and through conditions of approval placed on development adjacent to Alhambra Creek.

Impact 4.4-5: The General Plan would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (Less than Significant)

The proposed project is a long-range planning document, in which local policies are established. The General Plan itself does not conflict with its own policies and has been drafted to be internally consistent (as required by State law). Subsequent development projects will be required to comply with the General Plan Update policies, as well as the Municipal Code. Implementation of the policies and implementation measures listed throughout this section would be consistent with already established ordinances. Specifically related to tree protections, General Plan Policy OSC-P-4.2 calls for the preservation of woodlands, marshes, and sensitive tree species such as oaks, black walnuts, and remove invasive exotics whenever possible or feasible, and Implementation Measure OSC-I-13.1a calls on the City to consider the adoption of a tree planting program for streets and other open spaces along the creek corridors.

The City of Martinez has a Tree Protection Ordinance that regulates the removal of protected trees on private property (Chapter 8.12, *Trees on Private Property – Preservation, Protection and Removal*). The Ordinance defines protected trees as all oak trees and indigenous trees measuring 20 inches or larger in circumference (approximately 6.5 inches in diameter), measured 4.5 feet from ground level. Oak trees include, but are not limited to: *Quercus agrifolia* (California or Coast Live Oak), *Quercus douglasi* (Blue Oak), *Quercus kelloggii* (California Black Oak) or *Quercus lobata* (Valley Oak). Indigenous trees include, but are not limited to: *Sequoia Sempervirens* (Coast Redwood), *Alnus*

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Rhombifolia (White Alder), *Alnus Oregona* (Red Alder), *Acer Macrophyllum* (Bigleaf Maple), *Aesculus Californica* (California Buckeye), *Arbutus Menziesii* (Madrone), *Umbellularia Californica* (California Bay or Laurel), *Juglans Hindsii* (California Black Walnut), *Platanus Racemosa* (California Sycamore), or *Sambucus Calliarpa* (Coast Red Elderberry). As discussed, the General Plan Update includes Policies and Implementation Measures that support tree preservation, and tree species identified in the City's Tree Protection Ordinance. The General Plan Update does not conflict with this existing ordinance and impacts would be **less than significant**.

Impact 4.4-6: General Plan implementation would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (No Impact)

The boundary of the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP or Plan) is approximately 15 miles east of the City of Martinez. There are no other HCP/NCCPs applicable to the Study Area. Therefore, implementation of the proposed project would have **no impact** relative to this environmental topic.

4.4.4 CUMULATIVE IMPACTS

Cumulative development anticipated in the region may result in impacts to biological resources, including the permanent loss of habitat for special-status species, direct and indirect impacts to special-status species, and reduction and degradation of sensitive habitat. Subsequent projects implemented under the City's General Plan Update would be required to be consistent with the policies and programs of the General Plan Update. The Open Space and Conservation Element of the General Plan Update establishes policies and implementation measures that are designed to protect and conserve special status species and their habitat, as discussed previously under Impacts 4.4-1 through 4.4-6.

Cumulative development anticipated throughout the greater region could result in impacts to biological resources, including the permanent loss of habitat for special status species, corridor fragmentation, direct and indirect impacts to special status species, and reduction and degradation of sensitive habitat. Biological resources are limited resources and the cumulative loss is considered significant.

While existing areas within the City that are undeveloped and in a naturalized condition with known significant biological resources or environmental constraints are primarily designated for open space and conservation uses by both the existing and proposed General Plan Land Use Maps, some lower intensity development, including residential and passive recreational facilities are allowed within some of these areas. Further, properties anticipated by the General Plan Update for development could contain significant biological resources. As described under Policy OSC-P-1.4 the City aims to protect natural areas, including, riparian vegetation, creeks, saltwater and freshwater marshes. Policy OSC-P-4.1 calls for the preservation and protection of special status plant and animal species consistent with the State and federal endangered species acts, including protection of their habitats.

Subsequent projects implemented under the proposed General Plan Update would be required to be consistent with the policies and implementation measures of the proposed General Plan Update, and all relevant State and federal regulations protecting important species, and habitat areas. The implementation of an individual project would require a detailed and site-specific review to determine the presence or absence of movement corridors, special-status species, and sensitive habitat on a given project site. If movement corridors, special-status species, or sensitive habitat are present and disturbance is required, federal and State laws require measures to reduce, avoid, or compensate for impacts to these resources. The requirements of these federal and State laws are implemented through the permit process. However, as discussed previously under Impacts 4.4-1 through 4.4-6, with implementation of the policies and implementation measures included within the General Plan Update, implementation of the General Plan Update would not generate a significant impact on biological resources. Additionally, implementation of the General Plan Update would not conflict with the provisions of a Habitat Conservation Plan, or other approved local, regional, or State habitat conservation plans.

Therefore, the proposed General Plan Update's incremental contribution to this cumulative impact would be **less than cumulatively considerable**.

4.4.5 SIGNIFICANT UNAVOIDABLE IMPACTS

Biological resources impacts associated with the implementation of the General Plan Update would be **less than significant**. No significant unavoidable biological resources impacts would occur as a result of the General Plan Update.

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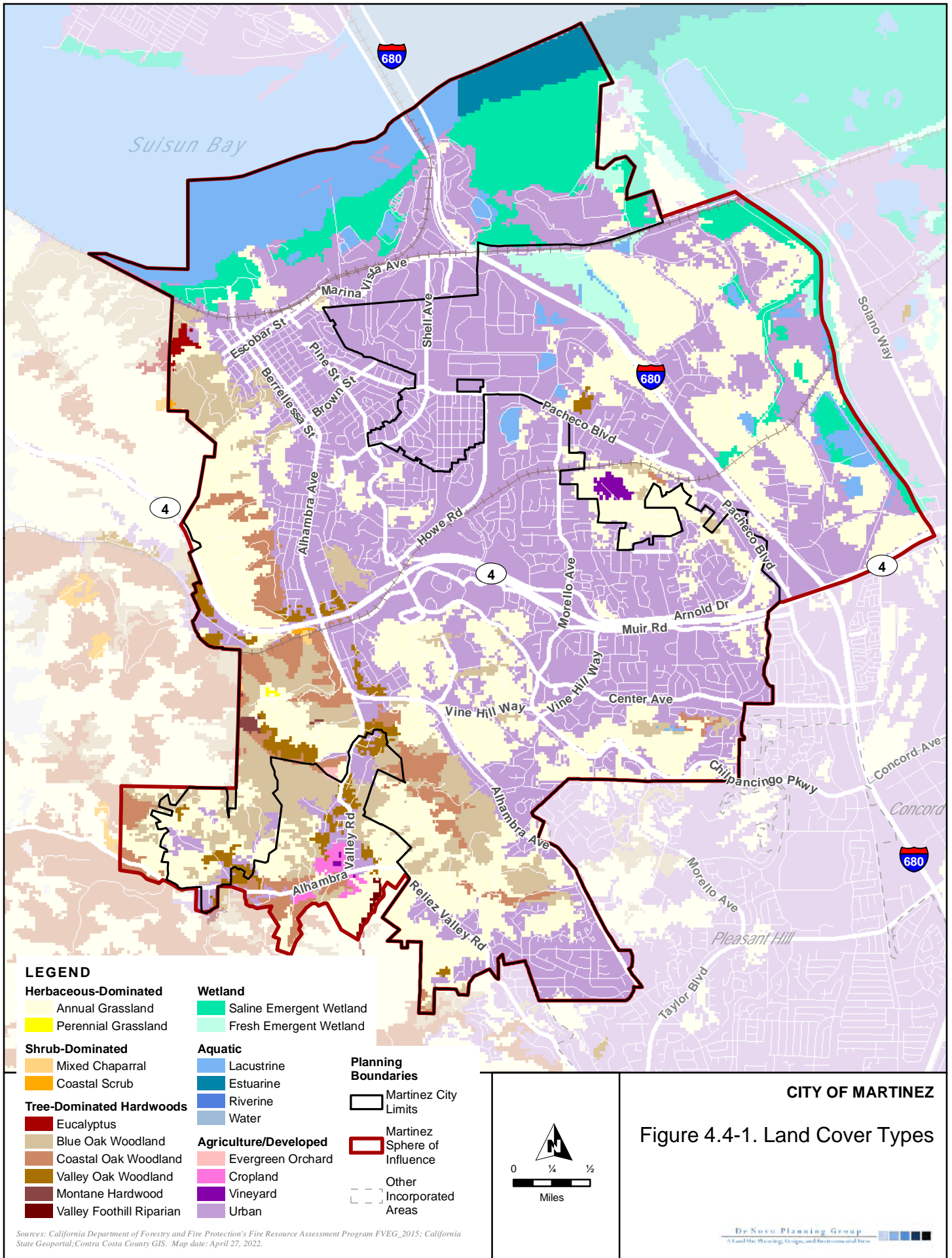
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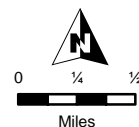
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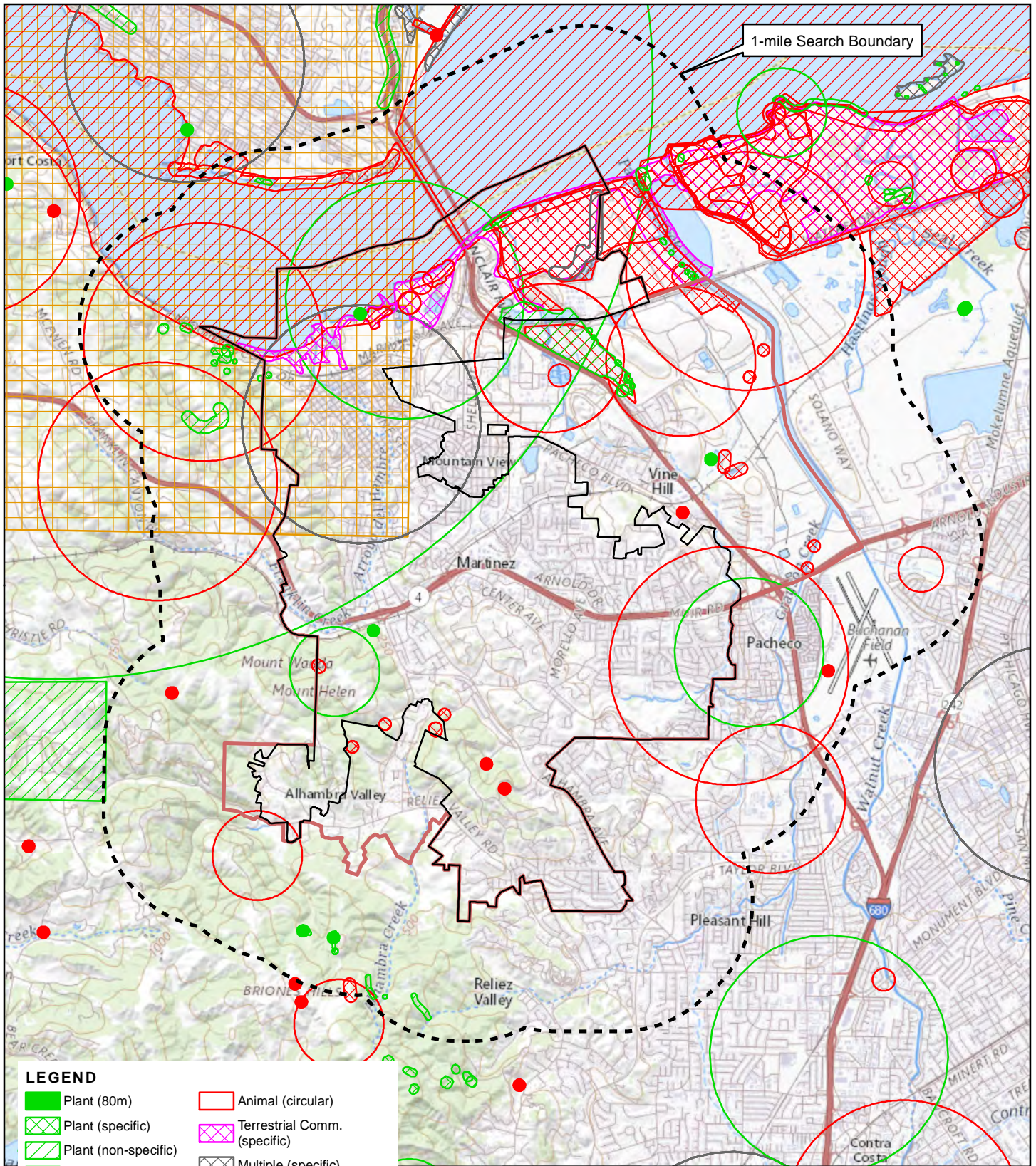
Sources: California Department of Forestry and Fire Protection's Fire Resource Assessment Program FVEG_2015; California State Geportal; Contra Costa County GIS. Map date: April 27, 2022.

CITY OF MARTINEZ

Figure 4.4-1. Land Cover Types



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LEGEND

- | | | | |
|--|------------------------------|--|------------------------------------|
| | Plant (80m) | | Animal (80m) |
| | Plant (specific) | | Animal (specific) |
| | Plant (non-specific) | | Animal (non-specific) |
| | Plant (circular) | | Animal (circular) |
| | Animal (80m) | | Terrestrial Comm. (specific) |
| | Animal (specific) | | Multiple (specific) |
| | Animal (non-specific) | | Multiple (non-specific) |
| | Martinez City Limits | | Multiple (circular) |
| | Martinez Sphere of Influence | | Sensitive Environmental Occurrence |

CITY OF MARTINEZ

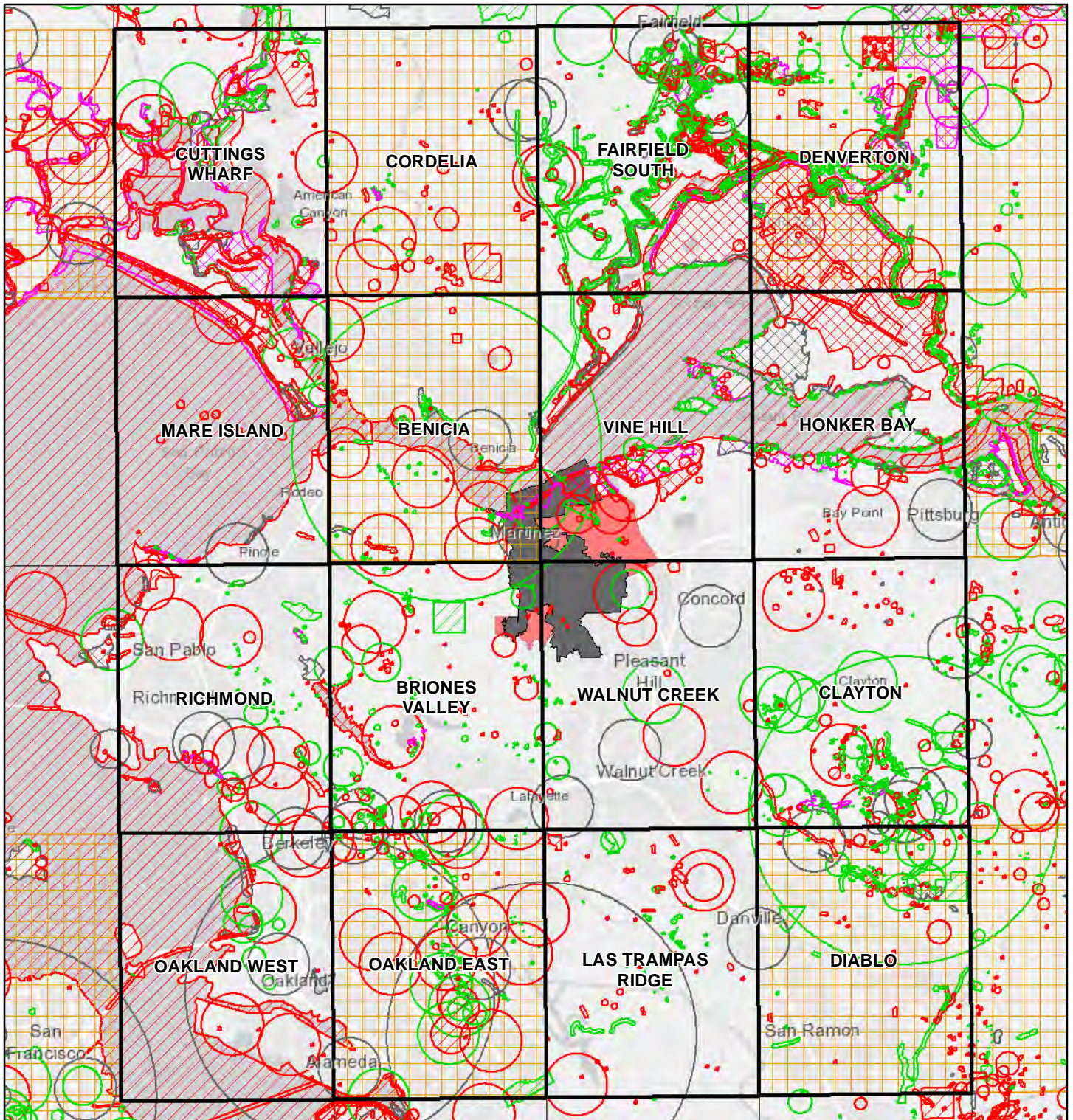
Figure 4.4-2. California Natural Diversity Database

1-mile Search



CNDDDB version 4/1/2022. Please Note: the occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species occur in an area. Basemap: USGS Topographic Map. Map date: April 27, 2022.

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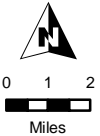
LEGEND

- | | | |
|----------------------|--------------------------------------|------------------------------------|
| Plant (80m) | Animal (non-specific) | Multiple (80m) |
| Plant (specific) | Animal (circular) | Multiple (specific) |
| Plant (non-specific) | Terrestrial Community (specific) | Multiple (non-specific) |
| Plant (circular) | Terrestrial Community (non-specific) | Multiple (circular) |
| Animal (80m) | Terrestrial Community (circular) | Sensitive Environmental Occurrence |
| Animal (specific) | Sphere of Influence | |
- Planning Areas**
- | | |
|-------------|--|
| City Limits | |
|-------------|--|

CITY OF MARTINEZ

Figure 4.4-3. California Natural Diversity Database

16-quad Search



Small text at the bottom left providing version information (CNDDDB version 4/1/2022), a disclaimer about species occurrences, and the map date (April 27, 2022).

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This section of the EIR assesses potential effects to cultural resources that could result from implementation of the proposed project. Cultural resources are defined as buildings, sites, districts, structures, or objects having historical, architectural, archaeological, cultural, or paleontological importance. No comment letters addressing cultural resources were received during the Notice of Preparation scoping period for the EIR. This section is based primarily on information provided in the Cultural Resource Report for the Martinez General Plan Update Environmental Impact Report prepared by Peak and Associates, Inc. in January 2015, Section IV.G., Cultural Resources, of the Downtown Specific Plan Environmental Impact Report prepared by LSA in 2004, and information from the City of Martinez Historical Society Historical Resources Inventory.

4.5.1 ENVIRONMENTAL SETTING

The geographic setting for the analysis of cultural resources consists of all lands within the City of Martinez.

PREHISTORIC PERIOD

In general, the Bay Area was lightly occupied prior to about 2000 B.C. by hunter/gatherer populations that did not concentrate on estuarine or marine food resources. Shellfish were eaten, but they are not predominant in the diet and sites are located inland as commonly as near the ocean or bay. About 2000 B.C. a radically different cultural focus, the Berkeley Pattern, takes over. This way of life does emphasize the resources available near shorelines and is commonly thought to represent the movement of Penutian speakers, such as the Ramaytush Ohlone (Costanoan), into the area, displacing Hokan speakers.

In contrast to the inferred population movement that ushered in the Berkeley Pattern, the next major shift in cultural pattern appears to develop in the area over time as a result of population expansion and technological development. The Augustine Pattern, from around A.D. 500 to Euro-American contact, shows an increased reliance on vegetable foods (necessary to support a denser population), more settlements, wide-ranging trading patterns with both neighboring and distant groups and several other traits reflecting a mature cultural development.

ETHNOGRAPHIC BACKGROUND

Ohlone

The old name for the native population of peninsula, Costanoan, derives from the Spanish term for coastal people and was not used by the Indian people. Modern descendants generally prefer the term Ohlone to refer to this linguistic grouping. Ohlone territory extended from the Carquinez Strait in the northeast to just south of Chalome Creek in the southeast and from San Francisco to the Sur River along the Coast. This vast territory was broken into eight different language-based zones. These eight branches of the Ohlone family were separate languages, not dialects (Levy 1978). The language of the Ohlone in the project vicinity was Ramaytush. The Ramaytush occupied the land from San Francisco south through San Mateo County. It is estimated that the 1770 population of the Ramaytush was approximately 1,400.

Ancestors of the Ohlone moved into the San Francisco and Monterey Bay areas from the Delta of the San Joaquin and Sacramento rivers. They divided up into what has been called "tribelets," small groups who spoke a common language, lived in a contiguous area and identified themselves primarily as occupants of a central village. They situated their permanent villages on high ground above seasonal marshes that were inundated by high water for a few months of the year. Access to fresh drinking water was a criterion for selecting a village location. The tribelet was the basic unit of Ohlone political organization. Territorial boundaries of tribelets were defined by physiographic features. The Karkines were most heavily associated with the Martinez area. The Karkines were part of the Costanoan group a subset of the Ohlone family.

The Ohlone followed a seasonal round of subsistence activities, gathering plant and animal foods and materials for baskets and other manufactures. They insured a sustained yield of plant and animal foods by careful management of the land.

Between 1770 and 1797, the Franciscans established seven missions in Ohlone territory and effectively changed the Indian way of life. Unwilling recruits to the missions resisted control by Franciscans. In 1793, a runaway neophyte named Charquin began a three-year struggle during which tribes in the northeast Bay Area engaged in sporadic warfare with the Spanish. There was also resistance against Mission San Jose in 1800. Levy reports that mission baptismal records demonstrate that the last Ohlone tribelets living an aboriginal existence had disappeared by 1810. By 1832, the Ohlone population had decreased to one-fifth or less than its pre-contact size. After the Mexican government secularized the missions (between 1834 and 1836), some Ohlone returned to traditional religious and subsistence practices while others worked on Mexican ranchos. Former mission residents formed multi-tribal Indian communities in Pleasanton and other locations within the aboriginal territory.

Bay Miwok

Linguistic data suggests that the Miwok have resided in the delta of the Sacramento and San Joaquin rivers for approximately 2,500 years. The Bay Miwok occupied an area south of the Sacramento River, including portions of Contra Costa County east of present-day Walnut Creek. The Julpun lived along the south bank of the San Joaquin River and on Sherman Island. Schenck (1926:136-137) suggested that the Julpun extended their territory northward at the time of contact in response to pressures in their own territory. The Chupcan lived west of the Julpun near present-day Antioch and probably bordered the Bolbon near Mount Diablo. The Bolbon or Wolwon lived along upper Marsh Creek near Mount Diablo. The pre-contact population of these Bay Miwok groups was undoubtedly greater than the 319 persons counted in mission baptismal records. In 1776, for instance, Anza's expedition visited a village near Antioch, presumably Chupcan, with a population estimated at 400 persons. This report implies that only 25 percent of the villagers were baptized. If the same proportion held true for other Bay Miwok villages, these three groups probably numbered about 1,275 persons before contact.

Bay Miwok, like the Costanoans, situated their villages on elevations above the seasonal marshes. Father Viader described the summer flooding of the rivers and said that "at that time the wild Indians live on a few small elevations". Cook categorized these elevations as two types:

(1) small, scattered mounds formed of residual calcareous sand (the so-called “sand mounds”) on the summits of which the Indians established their villages; and

(2) true habitation mounds, perhaps originally situated on a slight elevation, but built up by midden deposit to a height of several feet [Cook 1960:285].

Large, multi-lineage villages situated along waterways were occupied throughout the year except during the autumn acorn harvest. Single extended families occupied domed houses that were covered with tule mats and grass thatch. Wealthy men sometimes built semi-subterranean lodges. The Miwok also constructed assembly houses in the major villages and round, earth-covered semi-subterranean sweatshops used by men.

The Delta environment provided abundant food sources for the Miwok, including grasses, berries, and other plants, fish, and waterfowl, and herds of elk and deer. The Miwok used many of the same species as did the Costanoans. Their economy was based primarily on gathering plant foods. Fishing and hunting waterfowl and mammals were subsidiary subsistence activities. The Miwok relied on the acorn as a staple in their diet. Valley oak (*Quercus lobata*) yielded large crops, and the Miwok presumably gathered other acorn varieties as well. Women ground the acorns into a meal that they cooked as a gruel. The Bay Miwok supplemented this food by collecting seeds, nuts, roots, berries, and greens. The Miwok organized communal activities, such as hunting drives and fishing with nets and weirs (Bennyhoff 1977:10-11). Salmon were seasonally plentiful, and Viader observed Indians with large catches of fish (Cook 1960:258). Individual hunting skill may have been weakly developed. Although the Miwok used sinew-back bows and a variety of arrows, they often chose to run down their game and, after contact, many found it easier to steal horses and cattle than to rely on hunting game. Birds, rodents, and other small mammals apparently took a place in the Miwok diet more consistently than did deer, elk, or antelope.

The Miwok manufactured many specialized tools and utilitarian implements for subsistence activities, and they also excelled in crafting artistically-decorated baskets, ornaments, clothing, and ceremonial items. Men made baked clay net weights that were used for bird hunting and fishing, tule duck decoys, and ceremonial baked clay effigies. They created shell ornaments and bone ear decorations and feather-belts for the women. Men also made string and cords for nets and wove feather-cloaks and rabbit-skin blankets. Women twined and coiled baskets that they decorated with quail plumes and beads, and they also fashioned plainer basket utensils, tule mats, cradles, waist aprons, and clay cooking stones.

Religious ceremonies and rituals marked birth, puberty, and marriage. Ceremonies for the dead were the most elaborate observances. The Miwok ornamented the corpse and wrapped it in a tule mat. Common people buried their dead simply, while wealthy families set the corpse on fire and then burned baskets and other mortuary gifts before the grave was filled. Guests feasted and engaged in ritual gift exchange and public displays of grief. The Miwok burned a house when its owner died, and burned or abandoned a village when its headman died.

In 1774, the first Bay Miwok converts were recorded at Mission San Francisco, although most of the Bay Miwok neophytes were taken to Mission San Jose. Some of those who escaped the rigid life at the missions hid in the tule marshes and sought protection from extant villages; but Spanish expeditions used military force to recapture runaways and discourage the villagers from harboring fugitives (Cook 1960:258-259). The last Bay Miwok baptisms were recorded in 1827. Subsequently, the original tribal groups lost their identity, it has been suggested, by joining more distant tribelets or because they were decimated by disease.

The Bay Miwok village site of *Bolbon* was located on the southeast flanks of Mount Diablo, about eight miles southeast of the Study Area. From 1803 to 1813, 67 Miwok were recorded to have been baptized by the padres at the village. The village name, *Bolbones* was assigned to the local Bay Miwok tribe and tribelets in the general Study Area.

HISTORIC PERIOD

The “discovery” of the Carquinez Straits and exploration of Contra Costa County was accomplished by Pedro Fages, who toured the county with twelve soldiers, an Indian guide, and Father Juan Crespi in the spring of 1772. This expedition was followed in 1776 by a party led by Captain Juan Bautista de Anza that generally followed along the same route from San Francisco Bay to the Carquinez Straits, continued toward the interior and passed somewhere east of Mt. Diablo.

In 1824, the Alhambra Valley was included in a 17,000-acre land grant awarded to Don Ygnacio Martinez by the Mexican government for services rendered to the Royal Spanish and Mexican armies. In 1849, Don Ygnacio's son, Don Vicente, built the adobe house now located at the rear of the John Muir Home Historic Site. Martinez is named for Ygnacio Martinez.

Settlement: 1847 to 1876

In 1845, the Rancho Las Juntas, a grant of over 13,000 acres in the eastern Martinez area, was awarded to William Welch. An adobe house was built in 1846, but the elder Welch died before he could move in. His widow moved in with her son and the family occupied the land for generations, although much of the property was sold over the years. Other rancho lands now covered by portions of the City of Martinez include Rancho Cañada del Hambre y Las Bolsas, Rancho La Boca de la Cañada del Pinole, and Monte del Diablo.

In 1847, Dr. Robert Semple, a dentist from Kentucky who had served as a lieutenant in California's Bear Flag Revolt, contracted with General Mariano Vallejo to run a ferry service across the Carquinez Strait between Benicia and Martinez (the first such service in the Bay Area). The ferry was to play a major role in the development of Martinez. Beginning with the Gold Rush in 1849, Semple's primitive ferry boat was the only crossing on the Carquinez Strait, and one of the few ways from San Francisco and points south to get to the gold fields in a hurry. A ferry service between Martinez and Benicia would continue, with some interruptions, until 1962 when it ceased with the opening of the George Miller, Jr. Bridge. Recognizing that his wife's family (Martinez) could benefit from commerce with the waiting gold seekers and suppliers, Col. William M. Smith worked out an agreement with all the heirs to the Ygnacio Martinez property to allow him to establish a townsite at the ferry crossing (west of Alhambra Creek). The Welch family extended the townsite on to their land east of the creek

in 1850. Martinez became the first town in the District of Contra Costa. Some months later, the California Legislature met to draw county lines and to designate a seat of Justice (government) for the new counties. Martinez was named county seat in 1851. The fledgling City developed rapidly.

The Tucker, Miranda, Muri, Martinez, and Wittenmeyer homes are all examples of residences built during this period.

Economic Development: 1877 to 1914

Agriculture would bring real prosperity in the early years of the City. Some of the disheartened gold seekers returned to settle on the fertile lands they had hurriedly passed through in their rush to "find their fortunes." A number of these earliest settlers were from Nantucket and other areas of Massachusetts, and from Pike's County, Missouri. Many of these new arrivals were Irish and Portuguese, who tenant farmed to save up to buy land of their own. Other arrivals to the area were Italian immigrants, who began arriving to work the mines in Mt. Diablo.

These settlers/farmers wrote to family members and friends living elsewhere about the wonderful climate and long springs and summer growing seasons as well as the lush vegetation that was characteristic of the area. Initially, wheat was a major crop in the Diablo, Reliez, and Alhambra Valleys. Orchards planted on the valley hills produced peaches, cherries, pears, figs, apricots, and walnuts. The burgeoning city of San Francisco became a ready market for area farm products.

Dr. John T. Strentzel (father-in-law of John Muir) pioneered the planting of fruit and nut orchards, and vineyards. As early as 1869, Dr. Strentzel devised a method of shipping pears and other fruits in containers packed with carbonized bran which allowed fruits to retain freshness when being transported long distances. Farmers were no longer dependent upon local markets to sell their produce. Following Dr. Strentzel's death, John Muir and his wife, Louie Strentzel, took over managing Dr. Strentzel's vast orchard lands. Muir brought his sister and her husband out from Wisconsin to help manage the farm so he could continue his environmental pursuits. Today, the John Muir home, located on Alhambra Avenue adjacent to Highway 4 (along with the Martinez Adobe), is preserved as a National Historic Site.

Starting in the 1870s, Portuguese and Italian fishermen reaped a harvest of another sort from the waters of the Carquinez Strait. Fishing was so productive that two of twelve fishing canneries operated on the Pacific Coast in 1882 were located in Martinez. Thousands of pounds of salmon were shipped to Europe, the eastern U.S., Australia, New Zealand, and Hawaii. Fishing continued to provide a viable living for many families until Bay waters were closed to commercial fishing in 1957.

In the 1880s, Italian fisherman had begun their immigration, settling near Martinez's shoreline to fish and work in canneries. There was soon a predominately Italian neighborhood with bakeries, grocers, and pasta factories in the City. During this time an area known as Portuguese Flats grew up around St. Catherine's Church.

The City was the site of the De La Salle Novitiate, the birthplace of the famous Christian Brothers Winery (now located in Napa Valley). The winery shipped wine from Martinez from the mid-1880s until 1932. It began with 12 acres of grapes that the Christian brothers did not want to go to waste

when the land was purchased to establish a school. Wine production escalated with the arrival of Portuguese, Sicilian, and Italian immigrants beginning in the late 1870s. They were attracted to the area by the mild climate, fertile soil, and abundant fish life in the Strait. Many of the newly arrived immigrant farmers bought small farms in the Vine Hill and Pleasant Hill areas. Martinez had a number of wineries by the 1880s period, and vineyards occupied much of the land in the area.

Among those drawn to the area was Muir's friend John Swett, sometimes called the "father" of public education in California. He and his son Frank began planting vineyards in 1887. A number of other family vineyards and wineries thrived. Today the Viano family winery is the only vestige of the communities' once prolific and profitable wine making industry.

Martinez became an important shipping point for agricultural products. Initially, most shipping was done via sailing vessels; however, in 1877 a subsidiary of the Central Pacific (later Southern Pacific) Railroad reached Martinez. In 1899, the Atchison, Topeka, and Santa Fe Railway arrived in Martinez. Produce was shipped to distant markets over the rail routes.

This period was characterized by significant growth of the small rural community into a more distinctive commercial center. Most of Downtown was leveled by three fires in the 1890-1904 time periods, so most structures in the Downtown post-date that period. Buildings constructed at this time include the Bergamini Building and the Curry Building. This period includes residential Victorian and Craftsmen homes, which is exemplified by the Borland and Briones homes.

Royal Dutch Shell and 1920s-Era Building Boom: 1915 to 1929

In 1915, the Shell Oil Company built a refinery in Martinez to take advantage of easy access to the harbor and the railroad. Associated Oil built a second refinery three miles away. These industries enhanced the growth and identity of Martinez, as refineries and chemical plants attracted new residents, and a small ferry terminus rapidly became a modern city. This period was characterized by rapid growth due to the hundreds of workers who came to the City to take a job with the Shell Oil Company. Buildings during this period include the Sharkey Building and the existing Martinez City Hall, which was originally built to be a school building.

Depression and Post World War II: 1930 to 1960

The completion of the Southern Pacific Bridge between Martinez and Benicia in 1930 replaced a rail ferry service that moved trains between Port Costa and Benicia using the world's largest ferryboats ("Solano" and "Contra Costa"). This bridge enabled Martinez to become a stop on the transcontinental line as well as the main transfer point between the Shasta and Coastal routes to the Transcontinental Railroad.

As the County seat of Contra Costa County and the location of a major oil refinery, growth continued during the Depression, including the Contra Costa County Courthouse and Martinez Downtown Post Office.

As more and more people settled in Martinez, farmland was converted to residential areas. By the 1950s, commercial farming had practically ceased. Throughout the 1950s, 1960s, and 1970s, County facilities in Martinez expanded to meet the needs of a growing population. This expansion provided

an investment in infrastructure, bolstered the economy of downtown Martinez, and provided government jobs to many residents.

KNOWN CULTURAL RESOURCES

Thirty-seven cultural resources have been identified within the City of Martinez Study Area, according to a July 24, 2014 record search by the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS). The thirty-seven recorded cultural resources span both the prehistoric and historic periods and range from Native American village sites to historic period adobes, residences, ranches, and water control features.

There are many known cultural resources within or adjacent to the Study Area. Known cultural resources in or adjacent to the Study Area consist of prehistoric archaeological sites, historical architectural properties, one National Historic Trail corridor, and sites at which notable historical events occurred or buildings and structures once stood. A Preliminary Historical Resources Inventory (1976; revised 1989 and 2010) lists 23 resources within the City of Martinez Study Area, two of which (Ferndale Springs Site and Berryessa Adobe Site) were not on the Contra Costa County Historic Property Data File. A Historical Resource Inventory prepared jointly by the City of Martinez and the Martinez Historical Society (1982) lists 88 resources, 40 of which were located within the Downtown Commercial Area.

A number of public and privately-owned buildings within the Study Area have been identified on the Contra Costa County Historic Property Resource Inventory, as well as the City of Martinez's Historical Resource Inventory (1982). Table 4.5-1 summarizes the known cultural resources listed in County, State, or federal inventories or archives.

TABLE 4.5-1: CULTURAL RESOURCES LISTED IN COUNTY, STATE, AND FEDERAL INVENTORIES OR ARCHIVES

Property	Address	Date	Description	Status*
069204	Not Listed	1905	Bridge Tender's House	
107358	Not Listed	1920	Vine Hill Underpass, Bridge #28C-86	
155871	Not Listed	1899	BSNF Railroad Line/Coast Line	
155873	Not Listed	1962	Bridge 28-168/I-680 Crossing	
155872	Not Listed	1899	Bridge #28C-86 / Pacheco Boulevard	
11000237	4202 Alhambra Avenue	Not Listed	Port Chicago Navel Magazine National Memorial	NR
169503	Alhambra Avenue	1849	John Muir NHS Carriage Drive Loop	NR
070161	406 Alhambra Avenue	1914	River House Hotel	
096299	1301 Alhambra Avenue	1910	Not Listed	
010500	1521 Alhambra Avenue	1877	Paul's Place, Paul's Place Site	County
084793	1602 Alhambra Avenue	1903	Not Listed	
178583	2500 Alhambra Avenue	1959	Not Listed	
094230	4101 Alhambra Avenue	Not Listed	Maintenance Shed	-
010496	4202 Alhambra Avenue	1892	John Muir National Historic Site	NR

4.5

CULTURAL AND TRIBAL CULTURAL RESOURCES

TABLE 4.5-1: CULTURAL RESOURCES LISTED IN COUNTY, STATE, AND FEDERAL INVENTORIES OR ARCHIVES

Property	Address	Date	Description	Status*
010497	4202 Alhambra Avenue	1849	Vicente Martinez Home	CSHL
094229	4202 Alhambra Avenue	Not Listed	Windmill	NR
094231	4202 Alhambra Avenue	Not Listed	Visitor Center	-
094226	4202 Alhambra Avenue	1882	John Muir House	CSHL
094227	4202 Alhambra Avenue	1891	Carriage House	NR
094228	4202 Alhambra Avenue	1967	Bridge	NR
169508	4202 Alhambra Avenue	1849	John Muir National Historic Site M	NR
169507	4202 Alhambra Avenue	1849	John Muir National Historic Site E	NR
169633	4202 Alhambra Avenue	1849	Paths Around Martinez Adobe and Ranch	NR
196635	4202 Alhambra Avenue	1849	Patio West Side Martinez Adobe	NR
169639	4202 Alhambra Avenue	1849	Visitor Center Parking Lot	-
169641	4202 Alhambra Avenue	1849	Walkway Incense Cedars	NR
169654	4202 Alhambra Avenue	1849	John Muir NHS Muir-Strentzel-Hanna Gravesite	NR
169655	4202 Alhambra Avenue	1849	John Muir NHS John Muir Grave Marker	NR
169656	4202 Alhambra Avenue	1849	John Muir NHS Louie Strentzel Muir Grave Marker	NR
169657	4202 Alhambra Avenue	1849	John Muir NHS Strentzel Family Grave Marker	NR
169512	4202 Alhambra Avenue	1849	John Muir NHS Martinez Adobe Drive	NR
169629	4202 Alhambra Avenue	1849	NPS Sidewalks and Patio	NR
169628	4202 Alhambra Avenue	1849	Fire Lane House Unit	NR
169627	4202 Alhambra Avenue	1849	Easy Access Trail	NR
169534	4202 Alhambra Avenue	1849	John Muir National Historic Site V	NR
169533	4202 Alhambra Avenue	1849	John Muir NHS Strain Ranch Building	NR
169532	4202 Alhambra Avenue	1849	John Muir NHS Stabilization Structure	NR
169531	4202 Alhambra Avenue	1849	John Muir National Historic Site R	NR
169530	4202 Alhambra Avenue	1849	John Muir NHS Patio Wall and Steps	NR
169626	4202 Alhambra Avenue	1849	California Riding and Hiking Trail	NR
169529	4202 Alhambra Avenue	1849	John Muir NHS Hanna Family Grave Marker	NR
169528	4202 Alhambra Avenue	1849	John Muir National Historic Site B	NR
169527	4202 Alhambra Avenue	1849	John Muir National Historic Site A	NR
169513	4202 Alhambra Avenue	1849	John Muir NHS Triangle Intersection	NR
169524	4202 Alhambra Avenue	1849	John Muir NHS Stone/Brick wall and Steps	NR

TABLE 4.5-1: CULTURAL RESOURCES LISTED IN COUNTY, STATE, AND FEDERAL INVENTORIES OR ARCHIVES

Property	Address	Date	Description	Status*
169521	4202 Alhambra Avenue	1849	John Muir NHS Muir House Perimeter	NR
169518	4202 Alhambra Avenue	1849	John Muir NHS Woodshed Road	NR
169631	4202 Alhambra Avenue	1849	Park and Ride Lot	-
169658	4202 Alhambra Avenue	1849	John Muir NHS Strentzel family Monument	NR
132774	5020 Alhambra Valley Road	1910	Second Residence/ Strain Ranch	NR
132779	5020 Alhambra Valley Road	Not Listed	Animal Pens/ Strain Ranch	NR
132778	5020 Alhambra Valley Road	Not Listed	Barn #4/ Strain Ranch	NR
132780	5020 Alhambra Valley Road	Not Listed	Corrals/ Strain Ranch	NR
132777	5020 Alhambra Valley Road	Not Listed	Barn #3/ Strain Ranch	NR
132775	5020 Alhambra Valley Road	Not Listed	Garage/ Strain Ranch	NR
132776	5020 Alhambra Valley Road	Not Listed	Barn #2/ Strain Ranch	NR
132772	5020 Alhambra Valley Road	1910	Main Residence/ Strain Ranch	NR
079356	5031 Alhambra Valley Road	Not Listed	Strentzel House	NR
146828	615 Arch Street	1941	Childhood Center	
154492	1785 Arnold Drive	1910	Not Listed	
154493	2034 Arnold Drive	1920	Not Listed	
107359	75 Arthur Road	1940	Not Listed	
107360	120 Arthur Road	1900	Not Listed	
107361	140 Arthur Road	1940	Not Listed	
107362	190 Arthur Road	1935	Not Listed	
107363	399 Arthur Road	1935	Not Listed	
107364	493 Arthur Road	1935	Not Listed	
107365	497 Arthur Road	1930	Not Listed	
122948	15 Barber Lane	Matthew Barber House	Not Listed	
010508	Berrellesa Street	1876	Granger's Wharf	County
010502	Berrellesa Street	1847	Martinez Benicia Ferry Landing	County
139487	4249 Cabrilho Drive	1953	Not Listed	
010501	Carquinez Scenic Drive	1854	Martinez Cemetery / Alhambra Cemetery	POI
153874	1314 Chestnut Street	1920	Not Listed	
183481	100 Church Street	Not Listed	BA51981B/Martinez United Methodist Church	
072999	625 Court Street	1901	Contra Costa County Courthouse Block	NR

4.5

CULTURAL AND TRIBAL CULTURAL RESOURCES

TABLE 4.5-1: CULTURAL RESOURCES LISTED IN COUNTY, STATE, AND FEDERAL INVENTORIES OR ARCHIVES

Property	Address	Date	Description	Status*
163658	630 Court Street	1926	The Sharkey Building	CRHR
073002	725 Court Street	1932	Contra Costa County Courthouse	NR
087540	740 Court Street	1941	Martinez City Library	NR
181213	815 Court Street	1937	Martinez Downtown Post Office	NR
179806	Cummings Skyway	Not Listed	Telecommunications Facility	
182944	1404 Date Street	Not Listed	Not Listed	
010503	110 Escobar Street	1877	Tucker Home	NR
123743	1005 Escobar Street	1949	Borland House	NR
098425	330 Ferry Street	Not Listed	Not Listed	
010504	401 Ferry Street	1877	Martinez Railroad Station	POI
066122	234 Foster Street	Not Listed	Not Listed	
065251	614 Green Street	Not Listed	Residence	
172326	305 Haven Street	Not Listed	Not Listed	
077900	525 Henrietta Street	1917	Martinez City Hall/Grammar School Annex	NR
183209	4742 Howard Avenue	1951	Not Listed	
141890	1990 La Salle Street	1945	Not Listed	
144856	951 Lemon Street	1945	Not Listed	
010506	Main Street and Court Street	1855	Contra Costa County Courthouse Site	County
010505	Main Street and Court Street	1858	Martinez Gazette	County
010507	235 Marina Vista Street	1877	Bunker Home	County
107366	1801 Marina Vista Street	1914	Shell Martinez Manufacturing Complex	
010509	295 Millthwait Drive	1840	Altamirano House	
137732	2561 Monterey Avenue	1940	Not Listed	
010510	4500 Pacheco Boulevard	1856	John Marsh Murder Site	CSHL
107357	4602 Pacheco Boulevard	1920	Not Listed	
107355	4630 Pacheco Boulevard	1925	Not Listed	
183875	4639 Pacheco Boulevard	1950	Discovery House	
169370	1116 Pine Street	1924	Not Listed	
087027	824 Richardson Drive	1923	Not Listed	
087026	828 Richardson Drive	1923	Not Listed	
087025	832 Richardson Drive	1923	Not Listed	
087024	836 Richardson Drive	1923	Not Listed	
172325	1435 Richardson Drive	1922	Not Listed	
010511	1634 Richardson Drive	1890	Wittenmyer Home	County
163358	4197 Rita Drive	1953	Not Listed	
141061	11 Robinsdale Road	1950	Not Listed	
131293	1174 Santa Fe Avenue	1943	Not Listed	
182931	1320 Santa Fe Avenue	Not Listed	Not Listed	
--	921 Susana St	c.1902	Alhambra High School	County
010512	Strentzel Lane	1856	John Muir Burial Site	County
010513	608 Talbart Street	1888	Tennet Home	County
155879	817 Talbart Street	1930	Not Listed	

TABLE 4.5-1: CULTURAL RESOURCES LISTED IN COUNTY, STATE, AND FEDERAL INVENTORIES OR ARCHIVES

Property	Address	Date	Description	Status*
084362	1115 Vine Street	1923	Not Listed	
010514	524 Ward Street	1879	Stewarts Grocery	County
133293	Not Listed	1959	Generator Building / OZOL DFSP	
133292	Not Listed	1959	Guardhouse / OZOL DFSP	
133291	Not Listed	1959	Administrative Building / OZOL DFSP	
133294	Not Listed	1959	Fuel Dock / OZOL DFSP	
133290	Not Listed	1958	Tank Farm / Tanks #83001-83012	
164395	Not Listed	1946	Martinez Dam	
010515	Alhambra Valley Road	1853	John Swett Winery Site	County
010499	SR 4	1925	Christie Underpass, BR. 28-39	
--	Rankin Olive Grove	1887	100 Buckley Street	CRHR
--	401 Ferry St	1876	Southern Pacific Railroad Depot	County
--	Alhambra Valley Road	1840	Altamirano Adobe	County
--	Escobar and Alhambra Avenue	1850	Berryessa Adobe	County
--	Alhambra Valley Road	--	Ferndale Springs	County
--	West end of Alhambra Valley	--	Alhambra Springs Resort	County
--	0.1 miles west of Pine St	1929	Arroyo Del Hambre Creek Bridge	
--	Ferry St	1940	Arroyo Del Hambre Creek Bridge	
--	--	--	Juan de Anza National Historic Trail Corridor	
--	--	--	Prehistoric archaeological site	
--	--	--	Prehistoric archaeological site	

SOURCE: CITY OF MARTINEZ, PEAK & ASSOCIATES, 2015; CALIFORNIA STATE PARKS, OFFICE OF HISTORIC PRESERVATION, 2022, CONTRA COSTA COUNTY, 2019.

NOTES:

- NR – NATIONAL REGISTER
- CSHL – CALIFORNIA STATE HISTORIC LANDMARK
- CRHR – CALIFORNIA REGISTER OF HISTORIC RESOURCES
- POI – POINT OF INTEREST
- COUNTY – CONTRA COSTA COUNTY HISTORICAL INVENTORY

Martinez Historic Resources Inventory

The City of Martinez conducted a historical resource inventory in 1982, the inventory identified over 80 structures as being historically or architecturally significant. Table 4.5-2 summarizes the City's inventory of known resources.

TABLE 4.5-2: CULTURAL RESOURCES LISTED IN THE MARTINEZ HISTORIC RESOURCES INVENTORY

Address	Year Built	Description
700 Alhambra Ave	1914	First modern hotel built in Martinez after Shell Oil plant proposed for development.
800 Alhambra Ave	c. 1910	Built by Pistochini Family.
1014 Alhambra Ave	1884	Michael Winslow house.
1015 Alhambra Ave	pre-1860	Built by Martin Woolbart. Moved to present location in 1919.
1034 Alhambra Ave	pre-1884	Home of Mrs. M. Riley.
1134 Alhambra Ave	--	No additional information.
1234 Alhambra Ave	pre-1880	Built by T.Z. Witten.
1301 Alhambra Ave	1909	Built to replace 1873 school. Upper floor removed in 1960.
604 Berrellessa Drive	pre-1887	No additional information.
403 Buckley St	pre-1884	Addresses vary between 403 Berrellessa St and 403 Buckley St.
1205 Castro St	late 1800s	Hittman house.
1317 Castro St	late 1800s	No additional information.
815 Court St	1937	Maynard Dixon mural inside.
924 Court St	1907	Home of Professor G.A. Wilcox.
936 Court St	--	Home of H.C. Raap.
1126 Court St	1906	A.J. Soto house. Built by Alvarado J. Soto in 1906.
1225 Court St	c. 1880s	Former sanitarium building moved from Contra Costa County Hospital.
Court and Ward Sts	pre-1927	Veteran's Memorial Hall dedicated in 1927.
Court St	--	County Finance Building.
110 Escobar St	1877	Tucker house. Built by John Tucker. Moved to present location in the late 1920s.
301 Escobar St	1902	Built by G. Sparacino.
611 Escobar St	--	No additional information.
700 block Escobar St	--	Curry Chapel Building.
1005 Escobar St	1890	Borland house. Built by John Moore. Currently houses the Martinez Historical Society.
1312 Escobar St	c. 1872	Built by Judge Joseph P. Jones
815 Estudillo St	pre-1884	Built by M.H. Bailhache.
1135 Estudillo St	c. 1860s	Home of Miranda family.
1230 Estudillo St	late 1800s	No additional information.
Estudillo and Susana Sts	--	Currently Susana Park. Site of 1860 Masonic Lodge Hall, in use until 1920s.
401 Ferry St	c. 1876	Southern Pacific Railroad Depot.
516 Ferry St	1916	Office of first Contra Costa Gas Company.
600 block Ferry St	1914	Curry Hall. Community events building.
624 Ferry St	1906	Bergamini Building.
629 Ferry St	1854	Site of first Simon Blum store in 1854
631 Ferry St	--	Part of the original store that housed the Blue Bird Cigar Manufacturing Company.
729 Ferry St	1860	Home and store of Weiss
800 Ferry St	pre-1884	Built by J.J. McNamara.
811 Ferry St	--	Original site of Hauser's funeral home.
614 Green St	pre-1884	Built by Dr. Carothers.
525 Henrietta St	1916	Currently City Hall. Martinez School annex built to accommodate Shell Oil children
621 Las Juntas St	--	No additional information.

TABLE 4.5-2: CULTURAL RESOURCES LISTED IN THE MARTINEZ HISTORIC RESOURCES INVENTORY

Address	Year Built	Description
304 Main St	1856	Built by John Tucker.
316 Main St	pre-1884	No additional information.
524 Main St	1926	J.C. Penney store.
535 Main S	1925	Site of Montgomery Ward store.
600-620 Main St	--	Original site of Simon Blum and Bros.
659 Main St	1924	Site of National Bank of Martinez.
700 Main St	1913-14	Built by J.J. McNamara and G. Winkleman.
701 Main St	1906	Original grocery and meat market of McNamara and Winkleman.
714-18 Main St	--	Part of Novelty Theater.
800 block Main St	--	James Hotel, built by the Hook family. Used as a hotel until 1980.
825 Main St	pre-1884	Brick building that housed the Gazette office and press in 1870s
938 Main St	--	No additional information.
235 Marina Vista St	1876	Marina Vista Street formerly known as Howard St.
304 Marina Vista St	1876	Home of Gabriel Blum; later home of Aylward Lying-In Hospital.
405 Marina Vista St	pre-1887	No additional information.
411-437 Marina Vista St	--	Only example of San Francisco "row" houses in Martinez.
600 block Marina Vista St	1927	Site of Colton Winery. Present surface overlies frame structure.
635 Marina Vista St	1927	No additional information.
707 Marina Vista St	1884	First site of Martinez Laundry.
805-825 Marina Vista St	pre-1884	Moved from 805 to 824 Marina Vista between 1915 and 1917.
1310 Marina Vista St	c. 1900-20	Home of Madison Ralph Jones.
921 Susana St	--	Site of first Alhambra High School.
304 Talbart St	pre-1878	No additional information.
334 Talbart St	--	No additional information.
608 Talbart St	1888	Built by Dr. John Tennent
504 Ward St	--	Store and residence of James Stewart

SOURCE: CITY OF MARTINEZ HISTORICAL RESOURCE INVENTORY, MARTINEZ PLANNING DEPARTMENT AND THE MARTINEZ HISTORICAL SOCIETY.

TRIBAL CONSULTATION

A Sacred Lands File (SLF) search was requested from the Native American Heritage Commission (NAHC) on May 23, 2022. NAHC's response, dated June 28, 2022, stated the SLF search had been completed with negative results and included a list of Native American individuals or tribal organizations that may have knowledge of cultural resources within or near the project site.

The City of Martinez conducted Native American consultations under Senate Bill (SB) 18 (Chapter 905, Statutes of 2004), which requires local governments to consult with Tribes prior to making certain planning decisions and requires consultation and notice for a general and specific plan adoption or amendments in order to preserve, or mitigate impacts to, cultural places that may be affected. In addition to SB 18 consultation, the City conducted tribal consultations under the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21080.3.1 subdivisions (b), (d) and (e)), also known as Assembly Bill (AB) 52, which requires

consulting for projects within the City of Martinez’s jurisdiction and within the traditional territory of the Tribal Organizations who have previously requested AB 52 consultations with the City.

On May 26, 2022, the City of Martinez sent letters via email and certified mail to 10 Native American individuals and/or Tribal Organizations in compliance with AB 52 and SB 18; refer to Appendix B, Tribal Consultation Communications. At the time of publication of this EIR, the City has received two requests for consultation, and consultation is ongoing.

4.5.2 REGULATORY SETTING

FEDERAL

National Historic Preservation Act

The National Historic Preservation Act (NHPA) was enacted in 1966 as a means to protect cultural resources that are eligible to be listed on the National Register of Historic Places (NRHP). The law sets forth criteria that are used to evaluate the eligibility of cultural resources. The NRHP is composed of districts, sites, buildings, structures, objects, architecture, archaeology, engineering, and culture that are significant to American History.

Virtually any physical evidence of past human activity can be considered a cultural resource. Although not all such resources are considered to be significant and eligible for listing, they often provide the only means of reconstructing the human history of a given site or region, particularly where there is no written history of that area or that period. Consequently, their significance is judged largely in terms of their historical or archaeological interpretive values. Along with research values, cultural resources can be significant, in part, for their aesthetic, educational, cultural and religious values.

Section 106 of the National Historic Preservation Act

Through regulations associated with the NHPA, an impact to a cultural resource would be considered significant if government action would affect a resource listed in or eligible for listing in the NRHP. The NHPA codifies a list of cultural resources found to be significant within the context of national history, as determined by a technical process of evaluation. Resources that have not yet been placed on the NRHP, and are yet to be evaluated, are afforded protection under the Act until shown not to be significant.

Section 106 of the NHPA and its implementing regulations (36 Code of Federal Regulations Part 800) states that for a cultural resource to be determined eligible for listing in the NRHP, the resource must meet specific criteria associated with historic significance and possess certain levels of integrity of form, location, and setting. The criteria for listing on the NRHP are applied within an analysis when there is some question as to the significance of a cultural resource. The criteria for evaluation are defined as the quality of significance in American history, architecture, archeology, engineering, and culture. This quality must be present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and 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; or
- Criterion B: It is associated with the lives of persons significant in our past; or
- Criterion C: It embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history.

Criterion (D) is usually reserved for archaeological resources. Eligible cultural resources must meet at least one of the above criteria and exhibit integrity, measured by the degree to which the resource retains its historical properties and conveys its historical character.

The Section 106 evaluation process does not apply to projects undertaken under City environmental compliance jurisdiction. However, should the undertaking require funding, permits, or other administrative actions issued or overseen by a federal agency, analysis of potential impacts to cultural resources following the Section 106 process would likely be necessary. The Section 106 process typically excludes cultural resources created less than 50 years ago unless the resource is considered highly significant from the local perspective. Finally, the Section 106 process allows local concerns to be voiced and the Section 106 process must consider aspects of local significance before a judgment is rendered.

Secretary of the Interior's Standards for Treatment of Historic Properties

Evolving from the Secretary of the Interior's Standards for Historic Preservation Projects with Guidelines for Applying the Standards that were developed in 1976, the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings were published in 1995 and codified as 36 Code of Federal Regulations Part 67. Neither technical nor prescriptive, these standards are "intended to promote responsible preservation practices that help protect our Nation's irreplaceable cultural resources." "Preservation" acknowledges a resource as a document of its history over time, and emphasizes stabilization, maintenance, and repair of existing historic fabric. "Rehabilitation" not only incorporates the retention of features that convey historic character, but also accommodates alterations and additions to facilitate continuing or new uses. "Restoration" involves the retention and replacement of features from a specific period of significance. "Reconstruction," the least used treatment, provides a basis for recreating a missing resource. These standards have been adopted, or are used informally, by many agencies at all levels of government to review projects that affect historic resources.

American Indian Religious Freedom Act and Native American Graves and Repatriation Act

The American Indian Religious Freedom Act recognizes that Native American religious practices, sacred sites, and sacred objects have not been properly protected under other statutes. It establishes as national policy that traditional practices and beliefs, sites (including right of access), and the use of sacred objects shall be protected and preserved. Additionally, Native American remains are protected by the Native American Graves and Repatriation Act of 1990.

Department of Transportation Act - Section 4(f)

The Department of Transportation (DOT) Act of 1966, is set forth in Title 49 United States Code (U.S.C.). This law established that it is the policy of the United States Government to make a special effort to preserve historic sites. The Secretary of Transportation may approve a transportation program or project that requires the use of a historic site of national, State, or local significance only if: a) There is no prudent and feasible alternative to using that land; and b) The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Other Federal Legislation

Historic preservation legislation was initiated by the Antiquities Act of 1966, which aimed to protect important historic and archaeological sites. It established a system of permits for conducting archaeological studies on federal land, as well as setting penalties for noncompliance. This permit process controls the disturbance of archaeological sites on federal land. New permits are currently issued under the Archaeological Resources Protection Act (ARPA) of 1979. The purpose of ARPA is to enhance preservation and protection of archaeological resources on public and Native American lands. The Historic Sites Act of 1935 declared that it is national policy to "Preserve for public use historic sites, buildings, and objects of national significance."

STATE

California Register of Historic Resources

The California Register of Historical Resources (CRHR) was established in 1992 and codified in the Public Resource Code §5020, 5024 and 21085. The law creates several categories of properties that may be eligible for the CRHR. Certain properties are included in the program automatically, including: properties listed in the NRHP; properties eligible for listing in the NRHP; and certain classes of State Historical Landmarks. Determining the CRHR eligibility of historic and prehistoric properties is guided by CCR §15064.5(b) and Public Resources Code (PRC) §21083.2 and 21084.1. NRHP eligibility is based on similar criteria outlined in Section 106 of the NHPA (16 U.S. Code [USC] 470).

Cultural resources, under CRHR and NRHP guidelines, are defined as buildings, sites, structures, or objects that may have historical, architectural, archaeological, cultural, or scientific importance. A cultural resource may be eligible for listing on the CRHR and/or NRHP if it:

- is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- is associated with the lives of persons important in our past;
- embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual or possesses high artistic values; or
- has yielded, or may be likely to yield, information important in prehistory or history.

If a prehistoric or historic period cultural resource does not meet any of the four CRHR criteria, but does meet the definition of a “unique” site as outlined in PRC §21083.2, it may still be treated as a significant resource if it is: an archaeological artifact, object or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- it contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information,
- it has a special and particular quality such as being the oldest of its type or the best available example of its type, or
- it is directly associated with a scientifically recognized important prehistoric or historic event.

California Environmental Quality Act

CEQA requires a lead agency determine whether a project may have a significant effect on historical resources (Public Resources Code Section 21084.1). A historical resource is a resource listed in, or determined to be eligible for listing, in the CRHR, a resource included in a local register of historical resources, or any object building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][1-3]).

A resource is considered historically significant if it meets any of the following criteria:

- 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.

In addition, if it can be demonstrated that a project would cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (Public Resources Code Section

4.5 CULTURAL AND TRIBAL CULTURAL RESOURCES

21083.2[a], [b], and [c]). Public Resources Code Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- 1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
- 2) Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
- 3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

CEQA also provides for the protection of Native American human remains (CCR §15064.5[d]). Native American human remains are also protected under the Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001 et seq.), which requires federal agencies and certain recipients of federal funds to document Native American human remains and cultural items within their collections, notify Native American groups of their holdings, and provide an opportunity for repatriation of these materials. This act also requires plans for dealing with potential future collections of Native American human remains and associated funerary objects, sacred objects, and objects of cultural patrimony that might be uncovered as a result of development projects overseen or funded by the federal government.

California Public Resources Code

California Public Resources Code (PRC) Section 5097 addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the California Native American Heritage Commission (NAHC) to resolve disputes regarding the disposition of such remains. It has been incorporated into Section 15064.5(e) of the CEQA Guidelines.

The NAHC, created in statute in 1976 (Chapter 1332, Statutes of 1976), is a nine-member body whose members are appointed by the Governor. The NAHC identifies, catalogs, and protects Native American cultural resources -- ancient places of special religious or social significance to Native Americans and known ancient graves and cemeteries of Native Americans on private and public lands in California. The NAHC is also charged with ensuring California Native American tribes' accessibility to ancient Native American cultural resources on public lands, overseeing the treatment and disposition of inadvertently discovered Native American human remains and burial items, and administering the California Native American Graves Protection and Repatriation Act (CaINAGPRA), among many other powers and duties. (NAHC)

PRC Sections 5097.9 through 5097.991 establish that no public agency or private party using or occupying public property (or operating on under a public license, permit, grant, lease or contract made after July 1, 1977) shall in any manner interfere with the free expression or exercise of Native

American religion as provided in the U.S. Constitution and the California Constitution. It also prohibits such agencies and parties from causing severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site or sacred shrine located on public property, except on a clear and convincing showing that the public interest and necessity so require it.

These sections also establish the State's NAHC. The NAHC is tasked with working to ensure the preservation and protection of Native American human remains, associated grave goods and cultural resources. Towards this end, the NAHC has a strategic plan for assisting the public, development communities, local and federal agencies, educational institutions and California Native Americans to better understand problems relating to the protection and preservation of cultural resources and to serve as a tool to resolve these problems. In 2006, PRC Sections 5097.91 and 5097.98 were amended by Assembly Bill 2641 to authorize the NAHC to bring legal action when necessary to prevent damage to Native American burial grounds or places of worship. It also established more specific procedures to be implemented in the event that Native American remains are discovered.

California Health and Safety Code

Section 7050.5 of the California Health and Safety Code requires that construction or excavation be stopped in the vicinity of discovered human remains until the county coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California NAHC. CEQA Guidelines (Section 15064.5) specify the procedures to be followed in case of the discovery of human remains on non-federal land. The disposition of Native American burials falls within the jurisdiction of the NAHC.

Senate Bill 18 (Burton, Chapter 905, Statutes 2004)

SB 18 requires local (city and county) governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places ("cultural places") through local land use planning. This legislation, which amended §65040.2, §65092, §65351, §65352, and §65560, and added §65352.3, §653524, and §65562.5 to the Government Code, also required the Governor's Office of Planning and Research (OPR) to include in the General Plan Guidelines advice to local governments for how to conduct these consultations. The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places. These consultation and notice requirements apply to adoption and amendment of both general plans (defined in Government Code §65300 et seq.) and specific plans (defined in Government Code §65450 et seq.).

Assembly Bill 978

In 2001, Assembly Bill (AB) 978 expanded the reach of Native American Graves Protection and Repatriation Act of 1990 and established a state commission with statutory powers to assure that federal and State laws regarding the repatriation of Native American human remains and items of patrimony are fully complied with. In addition, AB 978 also included non-federally recognized tribes for repatriation.

Assembly Bill 52

Assembly Bill 52 (AB-52) establishes a consultation process with California Native American Tribes on the NAHC List including federally and non-federally recognized tribes. AB-52 requires the consideration of tribal cultural resources in determination of project impacts and mitigation and requires providing notice to tribes if they have requested notice of projects proposed within the area.

LOCAL

Downtown Historic Overlay

Martinez has developed local City Ordinances including the Downtown Historic Overlay District (Chapter 22.47 of the Zoning Ordinance) relating to Historic Resources. The Downtown Historic Overlay District was adopted in 1983 to establish a framework for treatment of structures, which significantly contribute to the cultural and architectural heritage of the City, and addresses historic preservation and cultural resources. The Downtown Historic Overlay District's purpose is to establish provisions for the preservation of buildings individually listed on the National and/or State Register of Historic Places, or buildings that become so listed in the future. In addition, it establishes advisory Design Review guidelines for the rehabilitation of structures and new infill construction in the historic district. It also provides owners of qualified properties, the optional, more flexible provisions of the State Historical Building Code. The presence of a local historic district also creates the possibility for the City to establish a Mills Act program, which could provide property tax relief for owners who restore and maintain historic properties.

The Downtown Specific Plan

The 2006 Downtown Specific Plan contains the following goals and policies for historic preservation:

2.2.5 Urban Design Goals and Policies**Goal**

UD-1: Strengthen the identity and character of Downtown using the existing historic and architectural urban character of the community, while allowing for new structures that are architecturally compatible with, and complementary to, the existing architectural and historic fabric.

Policies

UD-1-1: Through design review, ensure that new development enhances the character of the Downtown Districts by requiring design qualities and elements that contribute to an active pedestrian environment, where appropriate, and ensuring that architectural elements are compatible and in scale with the existing historic structures in the Downtown.

UD-1-3: Improve streetscapes on key corridors in the Downtown and create a sense of arrival at key gateways which reinforce the City's natural, cultural and historic characteristics.

UD-1-5: Encourage appropriate public art and interpretational signage to further establish a sense of history and pride in the Downtown.

2.2.6 Historic Preservation Goals and Policies

Goal

HP-1: Strengthen and enhance the historic character of Downtown Martinez, which is unique to Contra Costa County, through the preservation and maintenance of Downtown's historically significant sites and structures.

Policies

HP-1-1: Promote community appreciation for the history of Martinez.

HP-1-2: Provide incentives to encourage the restoration of private historic structures to conserve the integrity of the buildings in the best possible condition.

HP-1-3: Through design review, encourage new development to be compatible with adjacent historical structures in scale, massing, building materials, and general architectural treatment.

6.1.4 Additional Measures

The intent of the Historic Overlay District is to preserve historic buildings to the maximum extent feasible. Therefore, no building more than 50 years old may be demolished before first investigating all feasible methods of re-using the structure. The City should consider preparing an ordinance providing that demolition of older buildings in the historic district should be allowed only after full evaluation of the feasibility of all alternatives available to the property owner that would allow the retention of the original structure: federal and/or State tax incentives, alternative methods of construction/rehabilitation etc. This ordinance should be developed in concert with the proposed ordinance governing unreinforced masonry buildings, but should also apply to non-unreinforced masonry buildings.

City of Martinez Municipal Code

City of Martinez Municipal Code Chapter 22.47, *Historic Resource Provisions*, establishes the framework for the preservation of structures and districts which significantly contribute to the cultural and architectural heritage of the City. The provisions of this Chapter apply Citywide.

4.5.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project is considered to have a significant impact on cultural or tribal cultural resources if it will:

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5;

4.5 CULTURAL AND TRIBAL CULTURAL RESOURCES

- Cause a substantial adverse change in the significance of archaeological resource pursuant to CEQA Guidelines §15064.5; and
- Disturb any human remains, including those interred outside of formal cemeteries.
- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
 - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or
 - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

IMPACTS AND MITIGATION MEASURES

Impact 4.5-1: Project implementation could result in substantial adverse change in the significance of a historical resource (Less than Significant)

Known historic resource sites are located throughout the Study Area, as described above, and undiscovered or potentially eligible sites may be located in various areas of the Study Area. Redevelopment and alteration of existing structures has the potential to impact known and potentially eligible historical resources. A substantial adverse change in the significance of an historic resource is defined in Section 15064.5 (b)(1) of the CEQA Guidelines as the “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.”

There are numerous recorded historic built environment resources throughout the Study Area, as documented in Table 4.5-1, and Table 4.5-2. These historic resources are scattered throughout the Study Area and vary in terms of type, architectural style, condition, and alteration history. While the General Plan Update does not directly propose any changes to any historic resources, future development allowed under the General Plan Update could cause a substantial adverse change in the significance of known historical resources or unknown historical resources which have not yet been identified. This is considered a potentially significant impact.

The proposed General Plan Update contain goals, policies and implementation measures that specifically address the protection of historical and architectural resources. Goal HCA-G-1 in the Historical, Cultural and Arts Element fosters the protection, preservation, and rehabilitation of Martinez’s historic and cultural heritage and is supported by many policies and implementation measures including: HCA-P-1.7 which encourages new development to be compatible with adjacent historical structures in scale, massing, building materials, and general architectural treatment. HCA-

P-1.8 encourages through the design review process the adaptation and compatible reuse of historic buildings in order to preserve the historic resources that are a part of Martinez's heritage. HCA-P-1.9 encourages the upkeep, restoration, rehabilitation, and reconstruction of private historic structures to conserve the integrity of the buildings with respect to the character of the buildings and their settings, in the best possible condition when possible and feasible.

To implement these goals and policies, the Historical, Cultural and Arts Element includes HCA-I-1.1a which encourages reuse and rehabilitation of historic buildings in accordance with the Secretary of the Interior's Standards for the Preservation of Historic Structures. Implementation Measure HCA-I-1.1b encourages the use of the State Historical Building Code where applicable. HCA-I-1.1d requires the preparation of a historic context for Downtown Martinez and other historic areas of the City; which will then be utilized to identify structures that may be eligible for local, State and national historic resource designation. HCA-1.1e allows for the continued effort to work with and support the Martinez Historical Society in their efforts to help preserve Martinez's history. Implementation Measure HCA-I-1.1f requires a cultural and archaeological survey prior to approval of any project where a known historic, archaeological, or other cultural resource is located, where a project would require excavation in an area that is known to be sensitive for cultural or archaeological resources, or on land that has not been significantly disturbed previously.

The Land Use Element includes the Central Residential Single Family land use designations which is intended to guide the maintenance of this eclectic area's character, providing flexibility to upgrade nonconforming structures and encourage new single- and multi-family construction, where such construction will be in keeping with the area's established character. Much of the valued historic character of the Central Residential area is due to the wide variety of residential densities and styles that are interspersed and integrated throughout the area.

Additionally, Implementation Measure LU-2.1a in the Land Use Element requires the City to continue to implement the Downtown Specific Plan. The Downtown Specific Plan, as described above, includes goals and policies related to the protection and preservation of historic structures. Land Use Element Policy LU-P-2.4 acknowledges the unique historic character of the Central Residential areas and encourages the City to facilitate maintenance and upgrading of existing structures with traditional design elements and supports this policy with Implementation Measure LU-I-2.4a which requires the City to consider modifying the Zoning Ordinance to encourage investment in existing structures in the Central Residential areas to encourage compatibility with historic character.

As future development and infrastructure projects are considered by the City, each project would be evaluated for conformance with the City's General Plan, Municipal Code, and other applicable State and local regulations relative to historic and potentially historic resources. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA, pursuant to the City's entitlement review process. Projects would need to comply with the City of Martinez Municipal Code Chapter 22.47, which establishes the framework for the preservation of structures and districts which significantly contribute to the cultural and architectural heritage of the City. Further, for structures that potentially have historical significance, the City would require preparation of a study by a qualified

professional archaeologist or historian to determine the significance of the structure and potential impacts of the proposed development in compliance with CEQA. Therefore, compliance with the General Plan Update policies and actions and existing regulations, would not cause a substantial adverse change in the significance of a historical resource and impacts would be **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Land Use Element

Goals

LU-G-2 Preserve and strengthen the City's overall image and create development that enhances the existing character and preserves the natural resources, residential neighborhoods, commercial areas, and small-town historic character of Downtown Martinez to the maximum extent feasible.

Policies

LU-P-2.4 Acknowledge the unique historic character of the Central Residential areas and facilitate maintenance and upgrading of existing structures that are currently seen as nonconforming by conventional zoning standards. Traditional design elements, such as covered front porches should be encouraged.

Implementation Measures

LU-I-2.1a Continue implementation of the Downtown Specific Plan to guide new mixed-use infill development.

LU-I-2.2c Ensure that new development in Downtown Martinez will continue to recognize the Downtown as an important historic resource.

LU-I-2.4a Consider modifying the zoning ordinance regulations to encourage investment in existing structures in the Central Residential areas, including possible modification of the standard minimum front yard requirements to encourage compatibility with historic character and permit more traditional design elements.

Historic, Cultural and Arts Element

Goals

HCA-G-1 Foster protection, preservation, and rehabilitation of Martinez's historic and cultural heritage.

Policies

HCA-P-1.3 Encourage relocation of older buildings for preservation and restoration, rather than demolition, pursuant to the California Historical Building Code (Section 18950 of the Health and Safety Code).

- HCA-P-1.4 Recognize the importance of protecting significant historic and archaeological resources by identifying, when possible, historic and archaeological resources and potential impacts on such resources by consulting the Martinez Historical Society and their Historic Resource Inventory, and the State Office of Historic Preservation's California Historic Resources Information System (CHRIS).
- HCA-P-1.7 Encourage new development to be compatible with adjacent historical structures in scale, massing, building materials, and general architectural treatment.
- HCA-P-1.8 Through the design review process, encourage the adaptation and compatible reuse of historic buildings in order to preserve the historic resources that are a part of Martinez's heritage.
- HCA-P-1.9 Encourage upkeep, restoration, rehabilitation, and, when appropriate, reconstruction of private historic structures to conserve the integrity of the buildings with respect to the character of the buildings and their settings, in the best possible condition when possible and feasible.
- HCA-P-1.11 Coordinate and encourage historic preservation activities and historic preservation groups, community groups, non-profits, and grassroots efforts to educate the community and visitors through tours, special events, and commemorative art.

Implementation Measures

- HCA-I-1.1a Encourage reuse and rehabilitation of historic buildings in accordance with the Secretary of the Interior's Standards for the Preservation of Historic Structures.
- HCA-I-1.1b Encourage the use of State Historical Building Code where applicable.
- HCA-I-1.1c Put in place permanent conservation easements or other interests in real property with culturally appropriate management criteria for the purpose of preserving and protecting the resource or place.
- HCA-I-1.1d Prepare a historic context for Downtown Martinez and other historic areas of the City like the former Italian Fishing Village along Berrellessa Street north of the railroad tracks. Utilize the contexts to update the 1982 Historic Resource Inventory and develop surveys for areas outside of the Downtown. Use the surveys to identify structures that may be eligible for local, state and national historic resource designation.
- HCA- 1.1e Continue to work with and support the Martinez Historical Society in their efforts to help preserve Martinez's history.
- HCA-I-1.1f Require a historical, cultural and archaeological survey prior to approval of any project where a known historic, archaeological, or other cultural resource is located, where there is a structure more than 50 years old, which would require excavation in an area that is known to be sensitive for cultural or archaeological resources, or is on land that has not been significantly disturbed previously. If significant cultural or archaeological resources, including historic and prehistoric resources, are identified, appropriate

measures shall be implemented, such as avoidance, capping of the resource site, or documentation and conservation, to reduce adverse impacts to the resource.

Impact 4.5-2: Project implementation could result in a substantial adverse change in the significance of an archaeological resource (Less than Significant)

As described above, there are known significant archaeological resources located within the Study Area. The majority of land within Martinez is developed and has been previously disturbed by construction and site grading activities. Redevelopment and development of previously undeveloped areas have the potential to impact known and unknown archaeological resources. Surface-level and subsurface archaeological sites and deposits can be affected by ground-disturbing activities associated with construction activities.

While the General Plan Update does not directly propose any adverse changes to any archaeological resources, future development allowed under the General Plan Update could affect known archaeological resources as well as unknown archaeological resources, which have not yet been identified.

It has been generally held that prehistoric Native American sites are most likely to occur where several environmental factors combine to provide readily available resources, such as at the interface between valley and hills, coastal areas, and watersheds. Native Americans have been present in the Martinez region; thus the Study Area is considered sensitive for prehistoric Native American archaeological sites and there is potential to discover previously undisturbed resources.

Based upon the general planning nature of the General Plan Update, specific impacts to known and unknown resources cannot be identified. However, since there are known archaeological sites and the Study Area is considered sensitive for prehistoric Native American archaeological sites, there is the potential for future development proposals to adversely affect archaeological resources. Future development proposals could propose removal of known archaeological resources. Further, construction activities, such as grading and excavation, associated with future development projects could uncover additional archaeological resources. The potential to remove, damage, or destroy both known and unknown archaeological resources is a potentially significant impact.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the City's General Plan, Municipal Code, and other applicable State and local regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

All future development would be required to be consistent with the General Plan Update. A central theme of the proposed General Plan Update is to preserve and protect the City's cultural and archeological resources, and historical character. This is expressed in the Historic, Cultural and Arts element Goal HCA-G-1, which fosters the protection, preservation, and rehabilitation of Martinez's historic and cultural heritage. Goal HCA-G-1 is supported by various policies including: Policy HCA-P-1.4 which recognizes the importance of protecting significant historic and archaeological resources by identifying, when possible, archaeological resources and potential impacts on such

resources. HCA-P-1.5 calls for the avoidance of damaging effects to any tribal cultural resource when feasible. HCA-P-1.6 calls for the treatment of any Native American and human remains with cultural dignity when discovered during development or otherwise. HCA-P-1.10 requires compliance with State and federal laws to preserve and protect archaeological resources including the assessment and recovery of the resources.

Given that there are known archaeological resources located within the City and that the area is sensitive for archaeological resources, there is potential for future development within the City to impact such resources as previously described. Archaeological resources are protected under federal, State, and local regulations as described above and implementation of General Plan Update policies and implementation measures would reduce potential adverse impacts to archaeological resources associated with future development. Goals, policies, and implementation measures included in the General Plan Update aim to protect significant archaeological sites and resources as previously described. The General Plan Update requires compliance with State and federal laws to preserve and protect archaeological resources, including assessment and recovery procedures. Additionally, the General Plan Update includes Implementation Measure HCA-I-1.1f which requires a cultural and archaeological survey prior to approval of any project where a known historic, archaeological, or other cultural resource is located or which would require excavation in an area that is sensitive for cultural or archaeological resources. Subsequent development and infrastructure projects would be analyzed for potential environmental impacts, consistent with the requirements of CEQA, pursuant to the City's entitlement review process.

Compliance with the General Plan Update policies and implementation measures and existing regulations would not cause a substantial adverse change in the significance of an archaeological resource and impacts would be **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Historic, Cultural and Arts Element

Goals

HCA-G-1 Foster protection, preservation, and rehabilitation of Martinez's historic and cultural heritage.

Policies

HCA-P-1.4 Recognize the importance of protecting significant historic and archaeological resources by identifying, when possible, historic and archaeological resources and potential impacts on such resources by consulting the Martinez Historical Society and their Historic Resource Inventory, and the State Office of Historic Preservation's California Historic Resources Information System (CHRIS).

HCA-P-1.5 Avoid damaging effects to any tribal cultural resource when feasible.

HCA-P-1.6 Treat any Native American and human remains with culturally dignity when discovered during development or otherwise.

HCA-P-1.10 Comply with State and federal laws to preserve and protect archaeological resources by complying with assessment and recovery of the resources.

Implementation Measures

HCA-I- 1.1c Put in place permanent conservation easements or other interests in real property with culturally appropriate management criteria for the purpose of preserving and protecting the resource or place.

HCA-I-1.1f HCA-I-1.1f Require a historical, cultural and archaeological survey prior to approval of any project where a known historic, archaeological, or other cultural resource is located, where there is a structure more than 50 years old, which would require excavation in an area that is known to be sensitive for cultural or archaeological resources, or is on land that has not been significantly disturbed previously. If significant cultural or archaeological resources, including historic and prehistoric resources, are identified, appropriate measures shall be implemented, such as avoidance, capping of the resource site, or documentation and conservation, to reduce adverse impacts to the resource.

HCA-I-1.1g Require all new development, infrastructure, and other ground-disturbing projects to comply with the following conditions in the event of an inadvertent discovery of cultural resources, archaeological resources, or human remains:

- a) If construction or grading activities result in the discovery of significant historic or prehistoric archaeological artifacts or unique paleontological resources, all work within 100 feet of the discovery shall cease, the City shall be notified, and the resources shall be examined by a qualified archaeologist, paleontologist, or historian for appropriate protections and preservation measures. Work may only resume when appropriate protections are in place and have been approved by the City.
- b) If human remains are discovered during any ground disturbing activity, work shall stop until the City and the Contra Costa County Coroner have been contacted and, if the remains are determined to be of Native American origin, consult with the Native American Heritage Commission for applicable State laws and codes, including identifying the most likely descendants for consultation on appropriate measures and special circumstances. Work may only resume when appropriate measures have been taken and approved by the City.

Impact 4.5-3: Project implementation could result in the inadvertent disturbance of human remains including those interred outside formal cemeteries. (Less than Significant)

Indications are that humans have occupied the Bay Area for over 10,000 years and it is not always possible to predict where human remains may occur outside of formal burials. Therefore, excavation and construction activities, regardless of depth, may yield human remains that may not be interred in marked, formal burials. Health and Safety Code Section 7050.5, CEQA Guidelines Section 15064.5(e), and PRC Section 5097.98 mandate the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery. In the event that human remains are discovered during ground disturbing activities, the County coroner must be called in to assess the remains (Section 15064.5[e] of the CEQA Guidelines). If the County coroner determines that the remains are those of a Native American, the NAHC must be contacted within 24 hours, and the provisions for treating or disposing of the remains and any associated grave goods as described in Section 15064.5 of the CEQA Guidelines must be followed.

As future development and infrastructure projects are considered by the City, each project would be evaluated for conformance with the City's General Plan, Municipal Code, and other applicable State and local regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. Under CEQA, human remains are protected under the definition of archaeological materials as being "any evidence of human activity." Public Resources Code Section 5097 has specific stop-work and notification procedures to follow in the event that Native American human remains are inadvertently discovered during development activities.

The proposed General Plan Update includes policies addressing the potential discovery of human remains, including HCA-P-1.6, which calls for the treatment of any Native American and human remains with culturally dignity when discovered during development or otherwise, and HCA-P-1.10, which requires compliance with State and federal laws to preserve and protect archaeological resources including the assessment and recovery of resources. Additionally, subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

Implementation of the requirements of Public Resources Code 5097 would ensure that all construction activities that inadvertently discover human remains, implement state required consultation methods to determine the disposition and historical significance of any discovered human remains. These requirements are applicable to all future projects within the City. Compliance with the requirements of Public Resources Code 5097 would ensure that potential impacts associated with the inadvertent discovery of human remains are reduced to a **less than significant level**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS***Historic, Cultural and Arts Element******Goals***

HCA-G-1 Foster protection, preservation, and rehabilitation of Martinez’s historic and cultural heritage.

Policies

HCA-P-1.4 Recognize the importance of protecting significant historic and archaeological resources by identifying, when possible, historic and archaeological resources and potential impacts on such resources by consulting the Martinez Historical Society and their Historic Resource Inventory, and the State Office of Historic Preservation’s California Historic Resources Information System (CHRIS).

HCA-P-1.5 Avoid damaging effects to any tribal cultural resource when feasible.

HCA-P-1.6 Treat any Native American and human remains with culturally dignity when discovered during development or otherwise.

HCA-P-1.10 Comply with State and federal laws to preserve and protect archaeological resources by complying with assessment and recovery of the resources.

Implementation Measures

HCA-I- 1.1c Put in place permanent conservation easements or other interests in real property with culturally appropriate management criteria for the purpose of preserving and protecting the resource or place.

HCA-I-1.1f Require a historical, cultural and archaeological survey prior to approval of any project where a known historic, archaeological, or other cultural resource is located, where there is a structure more than 50 years old, which would require excavation in an area that is known to be sensitive for cultural or archaeological resources, or is on land that has not been significantly disturbed previously. If significant cultural or archaeological resources, including historic and prehistoric resources, are identified, appropriate measures shall be implemented, such as avoidance, capping of the resource site, or documentation and conservation, to reduce adverse impacts to the resource.

HCA-I-1.1g Require all new development, infrastructure, and other ground-disturbing projects to comply with the following conditions in the event of an inadvertent discovery of cultural resources, archaeological resources, or human remains:

- a) If construction or grading activities result in the discovery of significant historic or prehistoric archaeological artifacts or unique paleontological resources, all work within 100 feet of the discovery shall cease, the City shall be notified, and the resources shall be examined by a qualified archaeologist, palaeontologist,

or historian for appropriate protections and preservation measures. Work may only resume when appropriate protections are in place and have been approved by the City.

- b) If human remains are discovered during any ground disturbing activity, work shall stop until the City and the Contra Costa County Coroner have been contacted and, if the remains are determined to be of Native American origin, the Native American Heritage Commission and the most likely descendants have been consulted. Work may only resume when appropriate measures have been taken and approved by the City.

Impact 4.5-4: Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074, and that is: Listed or eligible for listing in the California Register of Historic Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or a resource determined by the lead agency (Less than Significant).

A Sacred Lands File (SLF) search was requested from the NAHC on May 23, 2022. NAHC's response, dated June 28, 2022, stated the SLF search had been completed with negative results.

The City of Martinez conducted Native American consultations under Senate Bill 18 (Chapter 905, Statutes of 2004), also known as SB 18, which requires local governments to consult with Tribes prior to making certain planning decisions and requires consultation and notice for a general and specific plan adoption or amendments in order to preserve, or mitigate impacts to, cultural places that may be affected. In addition to SB 18 consultation, the City conducted tribal consultations under the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21080.3.1 subdivisions (b), (d) and (e)), also known as AB 52, which requires consulting for projects within the City of Martinez's jurisdiction and within the traditional territory of the Tribal Organizations who have previously requested AB 52 consultations with the City. Ten (10) Tribal Organizations were contacted under AB 52 and SB 18. The City of Martinez sent letters to all ten Tribal Organizations on May 26, 2022 via email and certified mail. At the time of publication of this EIR, the City has received two requests for consultation, and consultation is ongoing.

Specific locations for future development and improvements have not been identified. Future projects would be required to be evaluated for project-specific impacts under CEQA at the time of application. The General Plan Update's policies and implementation measures requires tribal consultation and the protections of any identified archeological and tribal resources. This includes Policy HCA-P-1.5 which requires a project to avoid damaging effects to any tribal cultural resource when feasible, and Policy HCA-P-1.6 which requires treating any Native American and human remains with cultural dignity when discovered during development or otherwise. Additionally, implementation measures HCA-I-1.1g sets the procedures in the event of an inadvertent discovery of cultural or archaeological resources.

4.5 CULTURAL AND TRIBAL CULTURAL RESOURCES

All future development projects would be required to follow development requirements, including compliance with local policies, ordinances, and applicable permitting procedures related to protection of tribal resources. Subsequent projects would be required to prepare site-specific project-level analysis to fulfill CEQA requirements, which also would include additional AB 52 consultation that could lead to the identification of potential site-specific tribal resources.

As discussed under Impacts 4.5-2 and 4.5-3, impacts from future development could impact unknown archaeological resources including Native American artifacts and human remains. Impacts would be reduced to a less-than-significant level with implementation of General Plan Update policies and implementation measures. Compliance with the General Plan Update policies and implementation measures, as well as State requirements would provide an opportunity to identify, disclose, and avoid or minimize the disturbance of and impacts to a tribal resource through tribal consultation and CEQA review procedures. Therefore, impacts related to tribal resources as a result of General Plan Update implementation would be considered **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Historic, Cultural and Arts Element

Goals

HCA-G-1 Foster protection, preservation, and rehabilitation of Martinez's historic and cultural heritage.

Policies

HCA-P-1.4 Recognize the importance of protecting significant historic and archaeological resources by identifying, when possible, historic and archaeological resources and potential impacts on such resources by consulting the Martinez Historical Society and their Historic Resource Inventory, and the State Office of Historic Preservation's California Historic Resources Information System (CHRIS).

HCA-P-1.5 Avoid damaging effects to any tribal cultural resource when feasible.

HCA-P-1.6 Treat any Native American and human remains with culturally dignity when discovered during development or otherwise.

HCA-P-1.10 Comply with State and federal laws to preserve and protect archaeological resources by complying with assessment and recovery of the resources.

Implementation Measures

HCA-I- 1.1c Put in place permanent conservation easements or other interests in real property with culturally appropriate management criteria for the purpose of preserving and protecting the resource or place.

HCA-I-1.1f Require a historical, cultural and archaeological survey prior to approval of any project where a known historic, archaeological, or other cultural resource is located, where

there is a structure more than 50 years old, which would require excavation in an area that is known to be sensitive for cultural or archaeological resources, or is on land that has not been significantly disturbed previously. If significant cultural or archaeological resources, including historic and prehistoric resources, are identified, appropriate measures shall be implemented, such as avoidance, capping of the resource site, or documentation and conservation, to reduce adverse impacts to the resource.

HCA-I-1.1g Require all new development, infrastructure, and other ground-disturbing projects to comply with the following conditions in the event of an inadvertent discovery of cultural resources, archaeological resources, or human remains:

- a) If construction or grading activities result in the discovery of significant historic or prehistoric archaeological artifacts or unique paleontological resources, all work within 100 feet of the discovery shall cease, the City shall be notified, and the resources shall be examined by a qualified archaeologist, paleontologist, or historian for appropriate protections and preservation measures. Work may only resume when appropriate protections are in place and have been approved by the City.
- b) If human remains are discovered during any ground disturbing activity, work shall stop until the City and the Contra Costa County Coroner have been contacted and, if the remains are determined to be of Native American origin, the Native American Heritage Commission and the most likely descendants have been consulted. Work may only resume when appropriate measures have been taken and approved by the City.

4.5.4 CUMULATIVE IMPACTS

Cultural resource impacts are site specific and generally do not combine to result in cumulative impacts. Construction of individual development projects allowed under the General Plan Update land use designations may result in the discovery and removal of cultural resources, including historic and archaeological resources, as well as the inadvertent discovery of human remains. The General Plan Update policies and actions, as well as federal, State, and local regulations, would reduce the risk to resources in the region. As discussed above, site-specific development with the potential to impact known or unknown historic and/or archaeological resources would require a resource assessment to determine the significance of potential resources and if potential impacts are identified, to incorporate mitigation measures to reduce potential impacts to the identified resources. In the event of inadvertent discovery of human remains, Health and Safety Code Section 7050.5, CEQA Guidelines Section 15064.5(e), and PRC Section 5097.98 would dictate the proper identification and handling. Adherence to the General Plan Update policies and actions, and existing federal, State, and local regulations would avoid and/or minimize a cumulative loss of these important resources if they are identified during project-specific surveys or construction activities. Therefore, the General Plan Update's incremental contribution to cumulative cultural resource impacts would be **less than cumulatively considerable**.

4.5 CULTURAL AND TRIBAL CULTURAL RESOURCES

Tribal cultural resource impacts are site specific and generally do not combine to result in cumulative impacts. Construction of the individual development projects allowed under the land use designations of General Plan Update may result in the discovery and removal of tribal cultural resources. The General Plan Update policies and actions, as well as federal, State, and local regulations, would reduce the risk to tribal cultural resources in the region. As discussed above, site-specific development with the potential to impact tribal cultural resources would require a resource assessment and coordination with the tribes to determine the potential for tribal cultural resources and identification of mitigation measures to reduce potential impacts associated with the proposed development. Adherence to the General Plan Update policies and actions, and existing federal, State and local regulations would avoid and/or minimize a cumulative loss of tribal cultural resources. Therefore, the General Plan Update's incremental contribution to cumulative tribal cultural resource impacts would be **less than cumulatively considerable**.

4.5.5 SIGNIFICANT AND UNAVOIDABLE IMPACTS

Impacts to cultural resources and tribal cultural resources associated with the implementation of the General Plan Update would be **less than significant**. No significant unavoidable impacts to cultural resources or tribal cultural resources would occur as a result of the General Plan Update.

4.5.6 REFERENCES

Contra Costa County, *Historic Resources Inventory*. July 2019.

California State Parks, Office of Historic Preservation, *California Historical Resources*, <https://ohp.parks.ca.gov/ListedResources/?view=county&criteria=7>, accessed May 20, 2022.

United State Department of the Interior, National Park Service, National Register of Historic Places, *Historic Resources of Martinez, California*, http://martinez.granicus.com/MetaViewer.php?view_id=7&clip_id=1129&meta_id=85037 accessed May 27, 2022.

This section provides a background discussion of the seismic and geologic hazards, soil conditions, and mineral resources found in the City of Martinez and the regional vicinity and provides an analysis of potential impacts associated with implementation of the General Plan Update. This section is organized with an existing setting, regulatory setting, and impact analysis. No comments were received during the public review period or scoping meeting for the 2022 Notice of Preparation regarding this topic.

4.6.1 ENVIRONMENTAL SETTING

The City of Martinez is located in the central portion of Contra Costa County, approximately 25 miles northeast of San Francisco. Martinez is situated roughly five miles northwest of the Diablo Range which forms the eastern boundary of the Coast Ranges. The City is located in a relatively geologically young and seismically-active region. The composition of geologic material, soils, topography, and groundwater conditions affect geologic hazards at any given site.

Martinez consists of two general topographic areas: the lowland area and the upland area. The lowland area extends from the Carquinez Strait south and extends along Alhambra Creek in the western portion of Martinez, and along Pacheco Boulevard in the eastern portion of Martinez. The upland areas consist of hills that border the lowland areas on the west, east, and south. These hills represent the surface expression of structural folding and uplift. The topography of the lowland area is generally level with a gentle increase of surface elevation toward the southeast.

GEOMORPHIC PROVINCE

California's geomorphic provinces are naturally defined geologic regions that display a distinct landscape or landform. Earth scientists recognize eleven provinces in California. Each region displays unique, defining features based on geology, faults, topographic relief, and climate. These geomorphic provinces are remarkably diverse. The City of Martinez lies in the Coast Range Geomorphic Province.

The Coast Range is a northwest-trending mountain range (generally between 2,000 to 4,000, and occasionally 6,000 feet above sea level) and set of valleys (California Geological Survey, 2002). The ranges and valleys trend northwest, subparallel to the San Andreas Fault. Strata dip beneath alluvium of the Great Valley. To the west is the Pacific Ocean. The coastline is uplifted, terraced and wave-cut. The Coast Range is composed of thick Mesozoic and Cenozoic sedimentary strata. The northern and southern ranges are separated by a depression containing the San Francisco Bay. The northern Coast Ranges are dominated by irregular, knobby, landslide-topography of the Franciscan Complex. The eastern border is characterized by strike-ridges and valleys in Upper Mesozoic strata. In several areas, Franciscan rocks are overlain by volcanic cones and flows of the Quien Sabe, Sonoma, and Clear Lake volcanic fields. The Coast Ranges are subparallel to the active San Andreas Fault. The San Andreas is more than 600 miles long, extending from Pt. Arena to the Gulf of California. West of the San Andreas is the Salinian Block, a granitic core extending from the southern extremity of the Coast Ranges to the north of the Farallon Islands.

REGIONAL GEOLOGY

The geology of the region is to a large extent controlled by major active faults in the Coast Range, tidal lands located directly north, and the Sacramento San Joaquin Delta region to the east.

The Study Area is underlain by a variety of geologic units including modern sediments of the San Francisco Bay Estuary and Delta lowland sediments. These sediments are characterized as soft, water saturated muds, peat, and loose sands, which are subject to differential settlement under load, and may be prone to slump and slide under stress. Additionally, muds may contain expansive clays, which may require special design considerations. Sands within the Study Area may be subject to liquefaction under ground shaking stresses. Quaternary Alluvium consolidated and unconsolidated sediments within the Study Area present localized problems for building and include expansive clays, potential susceptibility to hillside earthflows and unstable cut slopes. Tertiary Formations within the Study Area include hard marine sandstone and shale overlain by soft non-marine (Pliocene) units. Slope stability conditions within this unit range from good (marine sandstone) to poor (Orinda Formation). The Great Valley Sequence includes hard marine sandstone, shale and conglomerates. Within this geologic unit, foundation and slope stability conditions range from good to fair, and are subject to sliding where sheared, fractured or contorted.

SEISMIC HAZARDS

Seismic hazards include both rupture (surface and subsurface) along active faults and ground shaking, which can occur over wider areas. Ground shaking, produced by various tectonic phenomena, is the principal source of seismic hazards in areas devoid of active faults. All areas of the State are subject to some level of seismic ground shaking.

Several scales may be used to measure the strength or magnitude of an earthquake. Magnitude scales (ML) measure the energy released by earthquakes. The Richter scale, which represents magnitude at the earthquake epicenter, is an example of an ML. As the Richter scale is logarithmic, each whole number represents a tenfold increase in magnitude over the preceding number. Table 4.6-1 details effects that would be commonly associated with Richter Magnitudes.

TABLE 4.6-1: RICHTER MAGNITUDES AND EFFECTS

Magnitude	Category	Effects
< 1.0 – 2.9	Micro	Generally not felt by people, though recorded on local instruments
3.0 – 3.9	Minor	Felt by many people; no damage
4.0 – 4.9	Light	Felt by all; minor breakage of objects
5.0 – 5.9	Moderate	Some damage to weak structures
6.0 – 6.9	Strong	Moderate damage in populated areas
7.0 – 7.9	Major	Serious damage over large areas; loss of life
≥ 8	Great	Severe destruction and loss of life over large areas

SOURCE: BRITANNICA, RICHTER SCALE, 2022.

Moment Magnitude (Mw) is used by the United States Geological Service (USGS) to describe the magnitude of large earthquakes in the U.S. The value of moment is proportional to fault slip multiplied by the fault surface area. Thus, moment is a measurement that is related to the amount of energy released at the point of movement. The Mw scale is often preferred over other scales, such as the Richter, because it is valid over the entire range of magnitudes. Moment is normally converted to Mw, a scale that approximates the values of the Richter scale.

The last major earthquake on any of these faults was the magnitude 6.0 Livermore Earthquake on the Greenville fault, followed by the Great Hayward Earthquake in 1868, with an estimated magnitude of between 6.8 and 7.0. Neither of these earthquakes had epicenters within Contra Costa County. The Hayward fault has the greatest likelihood of rupturing in the next 30 years of all the faults in the Bay Area, at 31 percent of a magnitude 6.7 or higher. This earthquake will cause damage roads and utilities, and many homes will be uninhabitable. Contra Costa County (including Martinez) will likely experience liquefaction from this or another major earthquake along the bay and delta regions.

In contrast, other scales describe earthquake intensity, which can vary depending on local characteristics. The Modified Mercalli Intensity Scale (MMI) expresses earthquake intensity at the surface on a scale of I through XII (USGS, 1989). The lower numbers of the intensity scale generally deal with the manner in which the earthquake is felt by people. The higher numbers of the scale are based on observed structural damage. Structural engineers usually contribute information for assigning intensity values of VIII or above.

Contra Costa County and the Martinez Study Area could experience considerable ground shaking generated by faults located near Martinez. For example, using data obtained by USGS, the Probabilistic Earthquake Shaking Hazard Assessment map produced by the Association of Bay Governments (ABAG) shows the Study Area to have a 10 percent chance of experiencing or exceeding “severe shaking” (MMI-VIII) over the next 50 years (ABAG, 2022). Table 4.6-2 details the potential effects of an earthquake based on the Modified Mercalli Intensities.

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TABLE 4.6-2: MODIFIED MERCALLI INTENSITIES AND EFFECTS

MMI	Effects
I	Movement is imperceptible
II	Movement may be perceived (by those at rest or in tall buildings)
III	Many feel movement indoors; may not be perceptible outdoors
IV	Most feel movement indoors; Windows, doors, and dishes will rattle
V	Nearly everyone will feel movement; sleeping people may be awakened
VI	Difficulty walking; Many items fall from shelves, pictures fall from walls
VII	Difficulty standing; Vehicle shaking felt by drivers; Some furniture breaks
VIII	Difficulty steering vehicles; Houses may shift on foundations
IX	Well-built buildings suffer considerable damage; ground may crack
X	Most buildings and foundations and some bridges destroyed
XI	Most buildings collapse; Some bridges destroyed; Large cracks in ground
XII	Large scale destruction; Objects can be thrown into the air

SOURCE: UNITED STATES GEOLOGICAL SURVEY, GENERAL INTEREST PUBLICATION 1989-288-913.

FAULTS

Faults are classified as Historic, Holocene, Late Quaternary, Quaternary, and Pre-Quaternary according to the age of most recent movement (California Geological Survey, 2002b). These classifications are described as follows:

- **Historic:** faults on which surface displacement has occurred within the past 200 years;
- **Holocene:** shows evidence of fault displacement within the past 11,000 years, but without historic record;
- **Late Quaternary:** shows evidence of fault displacement within the past 700,000 years, but may be younger due to a lack of overlying deposits that enable more accurate age estimates;
- **Quaternary:** shows evidence of displacement sometime during the past 1.6 million years; and
- **Pre-Quaternary:** without recognized displacement during the past 1.6 million years.

Faults are further distinguished as active, potentially active, or inactive (California Geological Survey, 2002b).

- **Active:** An active fault is a Historic or Holocene fault that has had surface displacement within the last 11,000 years;
- **Potentially Active:** A potentially active fault is a pre-Holocene Quaternary fault that has evidence of surface displacement between about 1.6 million and 11,000 years ago; and
- **Inactive:** An inactive fault is a pre-Quaternary fault that does not have evidence of surface displacement within the past 1.6 million years. The probability of fault rupture is considered low; however, this classification does not mean that inactive faults cannot, or will not, rupture.

There are no known active faults located within the City limits of Martinez. However, a small section of the Concord Fault is located within the City's SOI, and there are numerous active faults located in the regional vicinity of Martinez. Active faults in the region include the Antioch, Calaveras, Concord, Green Valley, Greenville, Franklin, Hayward, Rodgers Creek, and the San Andreas. Within the region are additional faults that are not considered active, but show evidence of being active within 1.6 million years including the Southampton fault which has a small portion within the western city limit of Martinez. Figure 4.6-1 illustrates the location of nearby faults. Below is a brief summary of the most notable faults in the regional vicinity:

- **Antioch Fault:** The Antioch fault, which is located approximately 15 miles west of the Study Area, was previously considered active and was zoned under the Alquist-Priolo Act as potentially capable of surface rupture. However, studies over the past few decades have indicated that the Antioch fault is not active and does not pose a surface-faulting hazard. The fault is no longer zoned by the State of California as an earthquake fault zone under the Alquist-Priolo Act.
- **Calaveras Fault:** The 75-mile-long Calaveras fault represents a significant seismic source in the southern and eastern San Francisco Bay region. It extends from an intersection with the Paicines fault south of Hollister, through the Diablo Range east of San Jose, and along the Pleasanton-Dublin-San Ramon urban corridor. The fault consists of three major sections: the southern Calaveras fault (from the Paicines fault to San Felipe Lake), the central Calaveras fault (from San Felipe Lake to Calaveras Reservoir), and the northern Calaveras fault (from Calaveras Reservoir to Danville). The level of contemporary seismicity along the southern section is low to moderate, whereas the central section has generated numerous moderate earthquakes in historic time. The northern section has a relatively low level of seismicity and may be locked. Paleoseismologic studies suggest a recurrence interval for large ruptures of between 250 and 850 years on the northern fault section. The timing of the most recent rupture on the northern Calaveras fault is unknown, but is estimated to have occurred several hundred years ago. Seismologic evidence suggests that the southern and central sections may produce earthquakes as large as Mw 6.2. Geologic and seismologic data suggest that the northern section may produce earthquakes as large as Mw 7.0. This fault is located approximately 12 miles south of Martinez.
- **Concord Fault:** The Concord-Green Valley fault is a northwest-striking, right-lateral strike-slip fault zone that extends from the Walnut Creek area across Suisun Bay and continues to the north. The Concord fault extends approximately 12 miles, from the northern slopes of Mount Diablo to Suisun Bay. North of Suisun Bay, the Green Valley fault continues to the north about 28 miles. The Concord fault is an actively creeping structure that has a long-term creep rate of approximately five mm/yr. It is estimated that rupture of both faults would produce a maximum earthquake of about Mw 6.9 with a recurrence interval of approximately 180 years. This fault is located approximately 0.2 miles east of Martinez, within the SOI.
- **Greenville-Marsh Creek Fault:** The Greenville-Marsh Creek fault is a northwest-striking strike-slip fault of the San Andreas system in the northern Diablo Range, extending from Bear Valley to the east side of Mount Diablo. This fault has a lower slip rate than other structures within the San Andreas system with a long-term rate of approximately one to

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three mm/yr. This fault produced a moderate magnitude earthquake in 1980. Research is currently being conducted on the fault zone to better constrain its slip rate and its history of past earthquakes. A maximum earthquake of Mw 6.9 has been estimated to the Greenville fault; the recurrence interval is estimated to be about 550 years. This fault is located approximately two miles northeast of Martinez.

- **Hayward Fault:** The Hayward fault is approximately 62 miles long and has been divided into two fault segments: a longer southern segment and a shorter northern segment. This structure is considered to be the most likely source of the next major earthquake in the San Francisco Bay Area. A maximum earthquake of Mw 6.9 has been estimated for both the northern and southern segments of the Hayward fault. This fault is located approximately 12 miles west of Martinez.
- **Mount Diablo Thrust Fault:** The Mount Diablo thrust fault is a northeast-dipping structure located beneath the Mount Diablo anticline. This blind thrust fault is estimated to be capable of generating a maximum earthquake of Mw 6.25. This fault is located approximately seven miles southeast of Martinez.
- **Rodgers Creek Fault:** The Rodgers Creek fault is a 38-mile-long, northwest-striking, right-lateral strike-slip fault that extends northward from the projection of the Hayward fault on the south side of San Pablo Bay. Paleoseismic investigations identified evidence for three earthquakes in the last 925 to 1,000 years, yielding a predicted earthquake recurrence interval of 230 years for an earthquake of Mw 7.0. This fault is located approximately 18 miles northwest of Martinez.
- **San Andreas Fault:** The San Andreas Fault is the largest active fault in California, and extends from the Gulf of California to Cape Mendocino. It was the source of the 1906 Mw 7.9 San Francisco earthquake. In the Bay Area, various segments of the fault include the southern Santa Cruz Mountains, possible source of the 1989 Mw 7.0 Loma Prieta earthquake; the Peninsula segment; and the North Coast segment. These segments have been estimated to have a maximum earthquake of Mw 7, Mw 7.1, and Mw 7.9, respectively. This fault is located approximately 30 miles west of Martinez.
- **West Napa Fault:** The West Napa fault consists of a north-northwest-striking zone of short right-lateral strike-slip fault segments in the hills to the west of the city of Napa. The fault extends about 19 miles from Napa to Yountville. It is characterized by well-defined active fault features such as tonal lineations, scarps in late Pleistocene and Holocene alluvium, closed depressions, and right-laterally deflected drainages. The estimated maximum earthquake for the West Napa fault based on fault length and continuity is Mw 6.5. This fault is located approximately nine miles north of Martinez.

The Significant United States Earthquakes 1568 – 2009 data published by the USGS in the National Atlas identifies earthquakes that caused deaths, property damage, geologic effects, or were felt by populations near the epicenter. Additionally, USGS maintains a catalog of recent and historic earthquakes. No significant earthquakes are identified within Martinez; however, significant earthquakes are documented in the region. Table 4.6-3 presents the significant earthquakes in the region.

TABLE 4.6-3: SIGNIFICANT EARTHQUAKES IN THE REGION

Magnitude	Intensity	Location	Year
6.0	VII	Antelope Valley	2021
6.0	VIII	North Bay (Napa)	2014
6.5	VII	Mendocino	2010
6.6	VIII	San Simeon	2003
5.0	VII	Napa	2000
6.9	IX	Loma Prieta (San Andreas)	1989
5.4	N/A	Santa Cruz County	1989
6.2	N/A	Morgan Hill	1984
5.8, 5.8	VII	Livermore	1980
5.7	N/A	Coyote Lake	1979
5.7, 5.6	N/A	Santa Rosa	1969
5.3, 4.2	N/A	Daly City	1957
5.4	N/A	Concord	1954
6.5	N/A	Calaveras fault	1911
7.9	IX	San Francisco	1906
6.8	N/A	Mendocino	1898
6.2	N/A	Mare Island	1898
6.3	N/A	Calaveras fault	1893
6.2	VIII	Winters	1892
6.4	N/A	Vacaville	1892
6.8	VII	Hayward	1868
6.5	VIII	Santa Cruz Mountains	1865
6.8	N/A	San Francisco Peninsula	1838

SOURCE: UNITED STATES GEOLOGIC SURVEY, 2022; ELLSWORTH, 1990.

The City of Martinez could also be subject to major earthquakes along currently inactive or unrecognized faults. Two examples in California include the 1983 Coalinga Quake (6.5 magnitude) and the 1994 Northridge Quake (6.7 magnitude), which was an unknown fault, and a “blind” thrust fault over 10 miles below the surface, respectively. The West Napa Fault which stretches 35 miles (57 km) from the City of St. Helena south to San Pablo Bay, is known to have displaced Holocene-age sediment — which is positive evidence of surface fault rupture in the last 11,000 years. In 2014 this fault produced a magnitude 6.0 earthquake. The West Napa Fault is part of the larger fault zone extending outward from the San Andreas Fault. The San Andreas marks the boundary where the Pacific and North American tectonic plates grind past one another. The West Napa Fault is sandwiched between two larger fault systems: the Hayward-Rodgers Creek Fault, and the Concord-Green Valley Fault. The West Napa 6.0-magnitude earthquake is the largest earthquake in California since the 6.7 magnitude Northridge earthquake in 1994, and the biggest in Northern California since the 1989 Loma Prieta earthquake, a magnitude 6.9.

SEISMIC HAZARD ZONES

Alquist-Priolo Fault Zones

An active earthquake fault, per California’s Alquist-Priolo Act, is one that has ruptured within the Holocene Epoch (≈11,000 years). Based on this criterion, the California Geological Survey (CGS) identifies Earthquake Fault Zones. These Earthquake Fault Zones are identified in Special Publication 42 (SP42), which is updated as new fault data become available. The SP42 lists all counties and cities within California that are affected by designated Earthquake Fault Zones. The Fault Zones are delineated on maps within SP42 (Earthquake Fault Zone Maps).

There are no Alquist-Priolo Earthquake Fault Zones located within the City limits of Martinez; however, the Concord-Green Valley Fault, which is delineated as Alquist-Priolo Fault Zone is located within the SOI; refer to Figure 4.6-1. There are four other major faults delineated as Alquist-Priolo Fault Zones between 20 and 40 miles from Martinez (Hayward fault, West Napa fault, Rodgers Creek fault, and the San Andreas Fault).

LIQUEFACTION

Liquefaction, which is primarily associated with loose, saturated materials, is most common in areas of sand and silt or on reclaimed lands. Cohesion between the loose materials that comprise the soil may be jeopardized during seismic events and the ground will take on liquid properties. Thus, liquefaction requires specific soil characteristics and seismic shaking.

In collaboration with the USGS Earthquake Hazard Program, the CGS produces Liquefaction Susceptibility Maps and identifies “Zones of Required Investigation” per the State’s Seismic Hazard Zonation Program.

The article *Mapping Liquefaction-Induced Ground Failure Potential* (Youd & Perkins, 1978) provides a generalized matrix to demonstrate the relationship between liquefaction potential and depositional landscapes. Table 4.6-4 demonstrates the general relationship between the nature and age of sediment and the anticipated liquefaction potential.

TABLE 4.6-4: LIQUEFACTION POTENTIAL BASED ON SEDIMENT TYPE AND AGE OF DEPOSIT

Sediment	Susceptibility Based on Age of Deposits (Years Before Present)			
	Modern (< 500 years)	Holocene (< 10,000)	Pleistocene (< 2Million)	Pre-Pleistocene (> 2 Million)
River Channel	Very High	High	Low	Very Low
Flood Plain	High	Moderate	Low	Very Low
Alluvial Fan/Plain	Moderate	Low	Low	Very Low
Lacustrine/Playa	High	Moderate	Low	Very Low
Colluvium	High	Moderate	Low	Very Low
Talus	Low	Low	Very Low	Very Low
Loess	High	High	High	- ? -
Glacial Till	Low	Low	Very Low	Very Low
Tuff	Low	Low	Very Low	Very Low
Tephra	High	High	- ? -	- ? -
Residual Soils	Low	Low	Very Low	Very Low
Sebka	High	Moderate	Low	Very Low
Un-compacted Fill	Very High	NA	NA	NA
Compacted fill	Low	NA	NA	NA

SOURCE: YOUD & PERKINS, 1978.

The CGS Liquefaction Susceptibility Maps and “Zones of Required Investigation” are produced per the State’s Seismic Hazard Zonation Program. In Northern California, the areas of high liquefaction potential identified by the CGS are confined to the nine counties comprising the Bay Area, which includes Contra Costa County. Figure 4.6-2 illustrates the liquefaction potential in the vicinity of the Study Area.

Liquefaction potential in the Study Area varies from very low to very high. The areas designated as having “very low” potential for liquefaction are located within the central and southern portions of Study Area. Moving to the north towards the Carquinez Straight, the potential for liquefaction increases to “very high.”

OTHER GEOLOGIC HAZARDS

Soils

Soil is generally defined as the unconsolidated mixture of mineral grains and organic material that mantles the land surface. Soils can develop on unconsolidated sediments and weathered bedrock. The characteristics of soil reflect the five major influences on their development: topography, climate, biological activity, parent (source) material, and time. Soils in Contra Costa County have been mapped by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (formally known as the Soil Conservation Service) (United States Department of Agriculture Soil Conservation Service, 1977).

Soils found within the Study Area are primarily loams, which is a soil consisting of sand, clay, silt, and organic matter. Soils found in the lowland areas are formed on level to gently sloping alluvial fans and flood plains. In the lowland area, most of the soil within the Study Area is a clay loam (Botella clay loam). Silty loams are mapped along the western margin (Millsholm complex in cut and fill land and Zamora silty clay loam); and silty clay (Omni silty clay) is mapped along the northern margin. Soils in the upland areas are composed of a loam that forms on steep hillsides underlain by sandstone and shale (Lodo clay loam) and interbedded sedimentary rock (Los Gatos loam). Figure 4.6-3 identifies the soils located in the Study Area.

Erosion

The U.S. Natural Resource Conservation Service (NRCS) delineates soil units and compiles soils data as part of the National Cooperative Soil Survey. Soil erosion data for the City of Martinez were obtained from the NRCS. The erosion factor Kf, which indicates the erodibility of the fine soils, varies from 0.15 to 0.37, which is considered moderately low to moderate potential for erosion.

Expansive Soils

The NRCS delineates soil units and compiles soils data as part of the National Cooperative Soil Survey. The following description of linear extensibility (also known as shrink-swell potential or expansive potential) is provided by the NRCS Physical Properties Descriptions:

"Linear extensibility" refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at 1/3- or 1/10-bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. The amount and type of clay minerals in the soil influence volume change.

The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

The linear extensibility of the soils within Martinez ranges from Low (1.1) to High (8.3). Figure 4.6-4 illustrates the shrink-swell potential of soils in the Study Area. The majority of the Study Area has moderate or high expansive soils, including most of the undeveloped land. Areas with very high expansive soils exist east of Interstate 680 in the eastern portion of the Study Area, and small pockets exist in the southern portion of the Study Area. The areas with moderate to very high expansive soils would require special design considerations due to shrink-swell potentials.

Landslide

The CGS classifies landslides with a two-part designation based on Varnes (1978) and Cruden and Varnes (1996). The designation captures both the type of material that failed and the type of movement that the failed material exhibited. Material types are broadly categorized as either rock

or soil, or a combination of the two for complex movements. Landslide movements are categorized as falls, topples, spreads, slides, or flows.

Landslide potential is influenced by physical factors, such as slope, soil, vegetation, and precipitation. Landslides require a slope, and can occur naturally from seismic activity, excessive saturation, and wildfires, or from human-made conditions such as construction disturbance, vegetation removal, wildfires, etc.

Within Martinez, the hillsides have a high susceptibility for landslides, while the relatively flat areas have a low susceptibility. Figure 4.6-5 illustrates the landslide potential in the vicinity of the Study Area. Given the relatively steep slopes in the western portion of the Study Area, the western areas of the City experience a higher susceptibility for earthflow (landslide) events.

Lateral Spreading

Lateral spreading generally is a phenomenon where blocks of intact, non-liquefied soil move down slope on a liquefied substrate of large areal extent. The potential for lateral spreading is present where open banks and unsupported cut slopes provide a free face (unsupported vertical slope face). Ground shaking, especially when inducing liquefaction, may cause lateral spreading toward unsupported slopes. The greatest potential for lateral spreading in the Study Area is in the sloped terrain (also susceptible to liquefaction) to the, north, west, and east.

Subsidence

Land subsidence is a gradual settling or sudden sinking of the Earth's surface due to removal or displacement of subsurface earth materials (USGS, 2019). In California, the two principal causes for land subsidence are aquifer compaction due to excessive groundwater pumping and decomposition of wetland soils exposed to air after wetland conversion to farmland (Tetra Tech, 2018). In Contra Costa County, the highest incidence of subsidence occurs in the Delta plain and is caused by the natural process of oxidation of island peat soils, resulting in a gradual sinking of the ground (Contra Costa County, 2005). Many of the subsided islands in the Delta are between nine to 26 feet or more below sea level (USGS, 2018). The subsided Delta islands are perpetually at risk of flooding in the event of levee breaks or overtopping and many have flooded in the past, causing millions of dollars in damage. As subsidence progresses, the levees themselves must be regularly maintained and periodically raised and strengthened to support the increasing stresses on their banks.

Modern sediments in the northern portion of the Study Area include soft, water saturated muds, peat and loose sands. These soils are potentially susceptible to oxidation and are associated with land subsidence.

Collapsible Soils

Hydroconsolidation occurs when soil layers collapse, or settle, as water is added under loads. Natural deposits susceptible to hydroconsolidation are typically aeolian, alluvial, or colluvial materials, that have a high apparent strength when dry. The dry strength of the materials may be attributed to the

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clay and silt constituents in the soil and the presence of cementing agents (i.e., salts). Capillary tension may tend to bond soil grains. Once these soils are subjected to excessive moisture and foundation loads, the constituency including soluble salts or bonding agents is weakened or dissolved, capillary tensions are reduced and collapse occurs resulting in settlement. Existing alluvium within the Study Area may be susceptible to collapse and excessive settlements, which could create the risk of hydroconsolidation if these soils were exposed to excessive moisture.

Corrosivity

Corrosivity refers to potential soil-induced electrochemical or chemical action that could corrode or deteriorate concrete, reinforcing steel in concrete structures, and bare-metal structures exposed to these soils. The rate of corrosion is related to factors such as soil moisture, particle-size distribution, and the chemical composition and electrical conductivity of the soil. The natural soils found in the Study Area may be moderately corrosive. The materials used in the construction of modern infrastructure are typically designed to resist the effects of corrosion over the design life of the infrastructure. In addition, native soils are typically replaced by engineered backfill which generally has a low corrosive potential.

Naturally Occurring Asbestos

The term “asbestos” is used to describe a variety of fibrous minerals that, when airborne, can result in serious human health effects. Naturally occurring asbestos is commonly associated with ultramafic rocks and serpentinite. Ultramafic rocks, such as dunite, peridotite, and pyroxenite are igneous rocks comprised largely of iron-magnesium minerals. As they are intrusive in nature, these rocks often undergo metamorphosis, prior to their being exposed on the Earth’s surface. The metamorphic rock serpentinite is a common product of the alteration process. The Department of Conservation Division of Mines and Geology has mapped naturally occurring asbestos in Contra Costa County. There are no mapped deposits of naturally occurring asbestos within the Study Area. The nearest deposits are located in mountainous areas south of the Study Area.

PALEONTOLOGICAL RESOURCES

Paleontology is a branch of geology that studies prehistoric life forms other than humans, through the study of plant and animal fossils. Paleontological resources are fossilized remains of organisms that lived in the region in the geologic past and therefore preserve an aspect of the City’s and County’s prehistory. This is important in understanding the development of the region, as many of these species are now extinct. Like archaeological sites and objects (which pertain to human occupation), paleontological sites and fossils are non-renewable resources. They are found primarily in sedimentary rock deposits and are most easily found in regions that may have been uplifted and eroded, but may also be found anywhere that subsurface excavation is being carried out (e.g., streambeds, under roads).

Fossils and Their Associated Formations

Geologic formations are the matrix in which most fossils are found, occasionally in buried paleosols (ancient soils). These formations are totally different from modern soils and cannot be correlated with soil maps that depict modern surface soils representing only a thin veneer on the surface of the earth. Geologic formations may range in thickness from a few feet to hundreds of thousands of feet, and form complex relationships below the surface. Geologic maps (available through the USGS or CGS) show the surface expression (in two dimensions) of geologic formations along with other geologic features such as faults, folds, and landslides. Although sedimentary formations were initially deposited one atop the other, much like a layer cake, over time the layers have been squeezed, tilted, folded, cut by faults and vertically and horizontally displaced, so that today, any one rock unit does not usually extend in a simple horizontal layer. If sensitive formation bearing fossils can be found at the surface in an outcrop, chances are that same formation may extend not only many feet into the ground straight down, it may well extend for miles just below the surface. Consequently, predicting which areas are paleontologically sensitive is a difficult task.

Determining Paleontological Potential

The most general paleontological information can be obtained from geologic maps, but geologic cross sections (slices of the layer cake to view the third dimension) must be reviewed for each area in question. These usually accompany geologic maps or technical reports. Once it can be determined which formations may be present in the subsurface, the question of paleontological resources can be addressed. Even though a formation is known to contain fossils, they are not usually distributed uniformly throughout the many square miles the formation may cover. If the fossils were part of a bay environment when they died, perhaps a scattered layer of shells will be preserved over large areas. If on the other hand, a whale died in the bay, you might expect to find fossil whalebone only in one small area of less than a few hundred square feet. Other resources to be considered in the determination of paleontological potential are regional geologic reports, site records on file with paleontological repositories, and site-specific field surveys.

Paleontologists consider all vertebrate fossils to be of significance. Fossils of other types are considered significant if they represent a new record, new species, an oldest occurring species, the most complete specimen of its kind, a rare species worldwide, or a species helpful in the dating of formations. However, even a previously designated low potential site may yield significant fossils.

The University of California Museum of Paleontology (UCMP) specimens database lists more than 20,000 records for invertebrates, microfossils, plants, and vertebrates for Contra Costa County (University of California Museum of Paleontology, 2022). At least 12 of these specimens were identified to have a locality within the Study Area.

MINERAL RESOURCE CLASSIFICATION

Pursuant to the Surface Mining and Reclamation Act of 1975 (SMARA), the California State Mining and Geology Board oversees the Mineral Resource Zone (MRZ) classification system. The MRZ system characterizes both the location and known/presumed economic value of underlying mineral resources. The mineral resource classification system uses four main MRZs based on the degree of available geologic information, the likelihood of significant mineral resource occurrence, and the known or inferred quantity of significant mineral resources. The four classifications are described in Table 4.6-5.

TABLE 4.6-5: MINERAL RESOURCES CLASSIFICATION SYSTEM

Zone	Definition
MRZ-1	Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
MRZ-2	Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
MRZ-3	Areas containing mineral deposits, the significance of which cannot be evaluated.
MRZ-4	Areas where available information is inadequate for assignment to any other MRZ classification.

SOURCE: CALIFORNIA DEPARTMENT OF CONSERVATION, 2022.

MINERAL RESOURCES

Mineral resources include commercially viable oil and gas deposits, and nonfuel mineral resources deposits. Nonfuel mineral resources include metals such as gold, silver, iron, and copper; industrial metals such as boron compounds, rare-earth elements, clays, limestone, gypsum, salt, and dimension stone; and construction aggregate, including sand, gravel, and crushed stone. California is the largest producer of sand and gravel in the nation. Figure 4.6-6 shows resources by classification within the Study Area. The Study Area contains no identified mineral resources of regional or statewide significance (MRZ-2). The Study Area does contain land designated MRZ-1 (areas where adequate information indicates that no significant mineral resources are present, or of little likelihood), MRZ-3 (an area containing mineral deposits, the significance of which cannot be evaluated from the available data), and MRZ-4 (areas where available information is inadequate for assignment to any other MRZ Zone).

LOCATION OF PERMITTED AGGREGATE MINES

The California Office of Mine Reclamation periodically publishes a list of qualified permitted aggregate mines regulated under SMARA that is generally referred to as the AB 3098 List. The Public Contract Code precludes mining operations that are not on the AB 3098 List from selling sand, gravel, aggregates or other mined materials to State or local agencies. As of March 2022, there are four aggregate mines on the AB 3098 list in Contra Costa County; none of the four listed mines are within the Study Area (Department of Conservation, 2022b).

4.6.2 REGULATORY SETTING

FEDERAL

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act of 1977 (42 USC, 7701 et seq.) requires the establishment and maintenance of an earthquake hazards reduction program by the federal government. Under the National Earthquake Hazards Reduction Program (NEHRP), four federal agencies have responsibility for long-term earthquake risk reduction: the USGS, the National Science Foundation (NSF), the Federal Emergency Management Agency (FEMA), and the National Institute of Standards and Technology (NIST). NEHRP's mission includes improved understanding, characterization, and prediction of hazards and vulnerability; improvements of building codes and land use practices; risk reduction through post-earthquake investigation and education; development and improvement of design and construction techniques; improvement of mitigation capacity; and accelerated application of research results.

International Building Code (IBC)

The purpose of the International Building Code (IBC) is to provide minimum standards to preserve the public peace, health, and safety by regulating the design, construction, quality of materials, certain equipment, location, grading, use, occupancy, and maintenance of all buildings and structures. IBC standards address foundation design, shear wall strength, and other structurally related conditions.

STATE

California Building Standards Code

Title 24 of the California Code of Regulations, known as the California Building Standards Code (CBSC) or simply "Title 24," contains the regulations that govern the construction of buildings in California. The CBSC includes 12 parts: California Building Standards Administrative Code, California Building Code (CBC), California Residential Building Code, California Electrical Code, California Mechanical Code, California Plumbing Code, California Energy Code, California Historical Building Code, California Fire Code, California Existing Building Code, California Green Building Standards Code (CAL Green Code), and the California Reference Standards Code. Through the CBSC, the State provides a minimum standard for building design and construction. The CBSC contains specific requirements for seismic safety, excavation, foundations, retaining walls, and site demolition. It also regulates grading activities, including drainage and erosion control.

California Health and Safety Code

Section 19100 et seq. of the California Health and Safety Code establishes the State's regulations for earthquake protection. This section of the code requires structural designs to be capable of resisting likely stresses produced by phenomena such as strong winds and earthquakes.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 sets forth the policies and criteria of the State Mining and Geology Board, which governs the exercise of governments' responsibilities to prohibit the location of developments and structures for human occupancy across the trace of active faults. The policies and criteria are limited to potential hazards resulting from surface faulting or fault creep within Earthquake Fault Zones, as delineated on maps officially issued by the State Geologist. Working definitions include:

- Fault – a fracture or zone of closely associated fractures along which rocks on one side have been displaced with respect to those on the other side.
- Fault Zone – a zone of related faults, which commonly are braided and sub parallel, but may be branching and divergent. A fault zone has a significant width (with respect to the scale at which the fault is being considered, portrayed, or investigated), ranging from a few feet to several miles.
- Sufficiently Active Fault – a fault that has evidence of Holocene surface displacement along one or more of its segments or branches (last 11,000 years).
- Well-Defined Fault – a fault whose trace is clearly detectable by a trained geologist as a physical feature at or just below the ground surface. The geologist should be able to locate the fault in the field with sufficient precision and confidence to indicate that the required site-specific investigations would meet with some success.

“Sufficiently Active” and “Well Defined” are the two criteria used by the State to determine if a fault should be zoned under the Alquist-Priolo Act.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA), passed in 1990, addresses non-surface fault rupture earthquake hazards, including liquefaction and seismically-induced landslides. Under the SHMA, seismic hazard zones are to be mapped by the State Geologist to assist local governments in land use planning. The program and actions mandated by the SHMA closely resemble those of the Alquist-Priolo Earthquake Fault Zoning Act (which addresses only surface fault-rupture hazards) and are outlined below:

The State Geologist is required to delineate the various “seismic hazard zones.”

- Cities and counties, or other local permitting authority, must regulate certain development “projects” within the zones. They must withhold the development permits for a site within a zone until the geologic and soil conditions of the site are investigated and appropriate mitigation measures, if any, are incorporated into development plans.
- The State Mining and Geology Board provides additional regulations, policies, and criteria to guide cities and counties in their implementation of the law. The Board also provides

guidelines for preparation of the Seismic Hazard Zone Maps and for evaluating and mitigating seismic hazards.

- Sellers (and their agents) of real property within a mapped hazard zone must disclose that the property lies within such a zone at the time of sale.

Caltrans Seismic Design Criteria

The California Department of Transportation (Caltrans) has Seismic Design Criteria (SDC), which is an encyclopedia of new and currently practiced seismic design and analysis methodologies for the design of new bridges in California. The SDC adopts a performance-based approach specifying minimum levels of structural system performance, component performance, analysis, and design practices for ordinary standard bridges. The SDC has been developed with input from the Caltrans Offices of Structure Design, Earthquake Engineering and Design Support, and Materials and Foundations. Memo 20-1 Seismic Design Methodology (Caltrans, 2010) outlines the bridge category and classification, seismic performance criteria, seismic design philosophy and approach, seismic demands and capacities on structural components, and seismic design practices that collectively make up Caltrans' seismic design

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.

Division of Mines and Geology

The California Division of Mines and Geology (DMG) operates within the Department of Conservation. The DMG is responsible for assisting in the utilization of mineral deposits and the identification of geological hazards.

State Geological Survey

Similar to the DMG, the CGS is responsible for assisting in the identification and proper utilization of mineral deposits, as well as the identification of fault locations and other geological hazards.

Surface Mining and Reclamation Act of 1975

The California Department of Conservation Surface Mining and Reclamation Act of 1975 (Section 2710), also known as SMARA, provides a comprehensive surface mining and reclamation policy that permits the continued mining of minerals, as well as the protection and subsequent beneficial use of the mined and reclaimed land. The purpose of SMARA is to ensure that adverse environmental effects are prevented or minimized and that mined lands are reclaimed to a usable condition and are readily adaptable for alternative land uses. The production and conservation of minerals are encouraged, while also giving consideration to values relating to recreation, wildlife, range and forage, as well as aesthetic enjoyment. Residual hazards to public health and safety are eliminated.

4.6 GEOLOGY, SOILS, & MINERAL RESOURCES

These goals are achieved through land use planning by allowing a jurisdiction to balance the economic benefits of resource reclamation with the need to provide other land uses.

If a use is proposed that might threaten the potential recovery of minerals from an area that has been classified MRZ-2, SMARA would require the jurisdiction to prepare a statement specifying its reasons for permitting the proposed use, provide public notice of these reasons, and forward a copy of the statement to the State Geologist and the State Mining and Geology Board (Cal. Pub. Res. Code Section 2762). Lands classified MRZ-2 are areas that contain identified mineral resources.

LOCAL

City of Martinez General Plan

The adopted City of Martinez General Plan identifies goals and policies related to geologic and seismic hazards in the Safety Element.

Contra Costa County Hazard Mitigation Plan

The Contra Costa County Hazard Mitigation Plan was developed in accordance with the Disaster Mitigation Act of 2000 and followed FEMA's Local Hazard Mitigation Plan guidance. The Hazard Mitigation Plan incorporates a process where hazards are identified and profiled, the people and facilities at risk are analyzed, and mitigation actions are developed to reduce or eliminate hazard risk. The implementation of these mitigation actions, which include both short and long-term strategies, involve planning, policy changes, programs, projects, and other activities. The plan covers the unincorporated county, 25 special purpose districts, and 10 municipalities, including the City of Martinez. The 2018 update is a comprehensive update of the 2011 Contra Costa County Hazard Mitigation Plan.

City of Martinez Municipal Code

Chapter 8.50 of the City of Martinez Municipal Code, *Seismic Hazard Retrofit Program for Unreinforced Masonry*, promotes public safety by requiring mandatory strengthening of buildings in the City that exhibit structural deficiencies in their capacities to resist damage during an earthquake. The chapter provides systematic procedures and standards for unreinforced masonry buildings to be structurally analyzed and anchored. Where the analysis finds deficiencies, the chapter requires the building to be strengthened or demolished.

Title 15, *Buildings and Construction*, adopts various codes with modifications, including, but not limited to, the California Building Code, Residential Code, Green Building Standards Code, and Mechanical Code. Chapter 15.04, *Building Code*, adopts and provides amendments for the 2019 Edition of the California Building Code (Part 2 of Title 24 of the California Code of Regulations), which incorporates a California version of the 2018 International Building Code published by the International Code Council. Per Section 15.04.055, *Site Development Permit*, a site development permit is required for development of each parcel in the City for the plan checking and inspection of all non-building site improvements including grading. The site development permit serves as the

City's grading permit. Section 15.04.060, *Section J110 Amended—Erosion Control*, amends the California Building Code and contains the City's "Erosion Control Ordinance." The Erosion Control Ordinance requires erosion mitigation measures as part of the grading permit, and sets minimum Erosion Control Standards and enforcement mechanisms.

Chapter 21.38, *Hazardous Areas*, prevents subdivision of lots in areas subject to inundation, slides, or other hazards, unless corrective measures are taken in accord with good engineering standards.

Title 21, *Subdivisions*, regulates the subdivision of land in the City. Chapter 21.42, *Tentative Map*, requires tentative maps to incorporate a preliminary soils report and geotechnical investigation.

Title 22, *Zoning*, comprises the City's Zoning Ordinance. It implements the objectives of the General Plan through the City's zoning map and land use controls designed to protect and promote the public health, safety, peace, comfort, convenience, prosperity and general welfare of the public. Chapter 22.33, *Hillside Development Regulations*, regulates development of hillside areas by relating intensity of development to the limitations imposed by topography, hydrology, and geology, and avoiding development in areas prone to erosion, flooding and landsliding; ensuring that the level of development is consistent with the level of services which reasonably can be provided in hill areas; and preserving the natural features, environmental quality and scenic character of the hills while providing creative, innovative and safe residential development with a variety of housing types. These regulations prevent development on areas of slope instability due to slides, drainage, or other geologic hazards in order to minimize danger to life and property. Per Section 22.18.060, *Conditional Uses*, mines are permitted as a conditional use in the HI Heavy Industrial District.

4.6.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact associated with geology and soils and mineral resources if it will:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42; or
 - Strong seismic ground shaking; or
 - Seismic-related ground failure, including liquefaction; or
 - Landslides.
- Result in substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;

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- 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;
- 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;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;
- 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;
- 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 AND MITIGATION MEASURES

Impact 4.6-1: General Plan implementation has the potential to expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides (Less than Significant)

There are known active or potentially active faults, or Alquist-Priolo Earthquake Fault Zones, located within the Study Area. Additionally, there are numerous faults located in the region. Figure 4.6-1 illustrates the location of these faults. Active faults in the region include the Antioch, Calaveras, Concord, Green Valley, Greenville, Franklin, Hayward, Rodgers Creek, and the San Andreas. Within the region are additional faults that are not considered active, but show evidence of being active within the last 1.6 million years, including the Southampton fault, a small portion of which is located within the western City limits. Rupture of any of these faults or of an unknown fault in the region could cause seismic ground shaking. As a result, future development in the City of Martinez may expose people or structures to potential adverse effects associated with a seismic event, including strong ground shaking and seismic-related ground failure.

There are seismic hazard zones mapped in the Study Area; additionally, as indicated in the Contra Costa County Hazard Mitigation Plan, the USGS estimated in 2016 that there is a 72-percent probability of at least one earthquake before 2043 with a magnitude of 6.7 or greater that could cause widespread damage in the San Francisco Bay area, which includes the Martinez Study Area.

Because there are known active faults within the regional vicinity and located within the Martinez Study Area, the area could experience considerable ground shaking generated by nearby faults. For example, using data obtained by USGS, the Probabilistic Earthquake Shaking Hazard Assessment map produced by ABAG shows the Study Area to have a 10 percent chance of experiencing or exceeding “severe shaking” (MMI-VIII) over the next 50 years (ABAG, 2022). The potential for structures to be adversely affected by fault rupture is considered to be high based on the close proximity of known faults. The effect of this intensity level could cause poorly constructed buildings

to suffer partial or full collapse. Some well-constructed buildings could be damaged, and unreinforced walls could fall. Poorly constructed buildings could collapse, well-constructed buildings could be heavily damaged, and retrofitted buildings could be damaged.

Strong ground shaking can also result in liquefaction. As shown in Figure 4.6-2, liquefaction potential in the Study Area varies from very low to very high, with the majority of the Study Area designated “very low” or “moderate.” The northern area of the City, located near the Carquinez Strait, is delineated as having a very high potential for liquefaction. There is also a small area of very high liquefaction susceptibility located in the eastern edge of the SOI. There are a variety of geotechnical strategies that can be implemented to mitigate the potential for structural damage. These include appropriate foundation design, engineering soils, groundwater management, and the use of special flexible materials for construction.

Seismically induced landslides are common occurrences during or soon after earthquakes. Landslide potential is influenced by physical factors, such as slope, soil, vegetation, and precipitation. Landslides require a slope, and can occur naturally from seismic activity, excessive saturation, and wildfires, or from human-made conditions such as construction disturbance, vegetation removal, wildfires, etc. In the Study Area, the hillsides in the western areas of the City have a high susceptibility for landslides, while the relatively flat areas have a low susceptibility, as illustrated in Figure 4.6-5.

Any development within an Alquist-Priolo fault zone would be required to comply with regulatory requirements of the State of California Alquist-Priolo Earthquake Fault Zoning Act, which requires any proposed development to prepare a geologic report to address the potential for surface fault displacement within the site. Future development projects would be required to comply with the provisions of the CBSC, which requires development projects to perform geotechnical investigations in accordance with State law, engineer improvements to address potential seismic and ground failure issues, and to use earthquake-resistant construction techniques to address potential earthquake loads when constructing buildings and improvements. As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the CBSC, the City’s General Plan, Zoning Ordinance, and other regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. In addition to the requirements associated with the CBSC and the Municipal Code, the General Plan includes policies and actions to address potential impacts associated with seismic activity.

The Land Use and Public Safety Elements of the General Plan establish goals, policies, and implementation measures that are designed to protect people and structures from geologic hazards. Policies LU-P-3.4 and LU-P.3.5 reduce the seismic related risks, including landslides, by restricting development on hillsides. Goals PS-G-1 and PS-G-3 aim to reduce risks associated seismic and subsidence activity. Goal PS-G-2 aims to minimize the risk of property damage and personal injury posed by geologic and seismic hazards. Policy PS-P-1.1 addresses compliance with contemporary seismic standards for existing and proposed structures. PS-P-1.2 ensures that in areas with identified

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geotechnical hazards, development shall conform to the mitigation measures identified in a site-specific geotechnical report and/or project and site modification to respond to the site's hazards and conditions. PS-P-2.1 directs the City to continue to use structural design criteria, codes, and other programs and policies to protect the public from seismic effects, such as liquefaction, seismic response of unconsolidated geologic formations, collapse-hazard buildings, and other seismic-induced failures of existing structures. PS-P-3.1 considers prohibiting construction of buildings, roads, and utilities in landslide-prone hillsides. PS-P-3.2 requires geologic study on a site-specific basis, the density, suitability, and selection of appropriate construction techniques in areas where moderate soil limitations are present. PS-P-3.4 supports efforts by State and regional agencies to promote public awareness of potential geologic and seismic hazards. PS-P-3.5 requires new development and redevelopment projects with the potential for geological hazards to be subject to geotechnical evaluation prior to approval. PS-P-3.6 require that soils reports concerning hillside development are subject to peer review. PS-P-3.7 conduct landslide repair operations in conjunction with new development. PS-P-3.8 maintain current information on seismic hazards and landslides. PS-I-2.1a enforces the requirements of the CBC, including seismic design, and PS-I-2.1.b ensures the latest CBC is adopted. PS-I-3.1.c provides development standards in areas with identified geotechnical hazards, and requires development to conform to geotechnical report mitigation measures and/or project and site modifications to respond to site-specific hazards and conditions. PS-I-3.1.f includes site planning and building design features that reduce potential impacts from geologic hazards in the City's Design Guidelines, including provisions to limit damage to structures caused by subsidence and accepted grading practices on hillsides. PS-I-3.7.a requires comprehensive landslide mitigation actions to improve slope stability in known areas of landslides. PS-I-3.8.a ensures City maps and information on seismic and landslide hazards are available and updated for use in evaluating development proposals.

The General Plan Update policies require new land development proposals to avoid unreasonable exposure to geologic hazards, including earthquake damage, subsidence, liquefaction, and expansive soils. All development and construction proposals are reviewed by the City to address seismic safety issues and would be required to provide adequate mitigation for existing and potential hazards identified. Implementation of applicable General Plan policies and building code requirements ensure that development on soils sensitive to seismic activity is only allowed after adequate site analysis, including appropriate siting, design of structure, and foundation integrity. Therefore, with implementation of the applicable General Plan goals, policies, and implementation measures, and compliance with applicable State and City codes, potential impacts associated with a seismic event, including rupture of an earthquake fault, seismic ground shaking, liquefaction, and landslides would be **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS**Land Use Element****Goals**

LU-G-3 Protect environmentally and visually sensitive sites, hillsides, and natural resources wherever feasible.

Policies

LU-P-3.4 Continue to uphold and maintain hillside development regulations that reduce the environmental risks associated with the grading of steep slopes by reducing the maximum permitted density of sloping sites, and generally prohibiting new development on very steep sites, such as those over 30%.

LU-P-3.5 Slope stability shall be a primary consideration in the ability of land to be developed. Allow no development in landslide areas unless the area is stabilized through high-quality engineering design and construction as approved by the City.

Implementation Measures

LU-I-3.4a Ensure that new development complies with the Hillside Development Regulations Ordinance of the Zoning Code for hillside properties with any areas of 10% or above slope, and generally prohibiting development on areas with slopes exceeding 30%.

Public Safety Element**Goals**

PS-G-1 Minimize the risks associated with seismic and subsidence activity.

PS-G-2 Minimize risks of property damage and personal injury posed by geologic and seismic hazards.

PS-G-3 Reduce risks associated with seismic and subsidence activity.

Policies

PS-P-1.1 Assure existing and proposed structures are designed to contemporary standards for seismic safety.

PS-P-1.2 In areas with identified geotechnical hazards, development shall conform to the mitigation measures identified in a site-specific geotechnical report and/or the project and/or site shall be modified to respond to the site's hazards and conditions.

PS-P-2.1 Continue to use structural design criteria, codes, and other programs and policies to protect the public from seismic effects, such as liquefaction, seismic response of

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unconsolidated geologic formations, collapse-hazard buildings, and other seismic-induced failures of existing structures.

- PS-P-3.1 Consider prohibiting construction of buildings, roads, and utilities in landslide-prone hillsides.
- PS-P-3.2 Study on a site-specific basis, the density, suitability, and selection of appropriate construction techniques in those areas where moderate soil limitations are present.
- PS-P-3.4 Support efforts by state and regional agencies to promote public awareness of potential geologic and seismic hazards.
- PS-P-3.5 New development and redevelopment projects with the potential for geological hazards, such as slope failures or soil subsidence, shall be subject to geotechnical evaluation prior to approval.
- PS-P-3.6 Require that soils reports concerning hillside development are subject to peer review.
- PS-P-3.7 Conduct landslide repair operations in conjunction with new development.
- PS-P-3.8 Maintain current information on seismic hazards and landslides.

Implementation Measures

- PS-I-2.1.a Enforce requirements of the California Building Code, including seismic design provisions, as part of the building permit issuance and inspection process.
- PS-I-2.1.b Adopt updated versions of the California Building Code to address new technical and structural requirements that improve safety.
- PS-I-3.1.a The City may deny applications for development on excessively steep hillsides where slope stability mitigations are not deemed feasible by the City Engineer and where a significant hazard to City residents may result from construction of a proposed development.
- PS-I-3.1.b Require new development and redevelopment projects in hillside areas or areas subject to subsidence to submit a geologic investigation and a report by a qualified engineering geologist with application materials. The reports shall address potential for slope failure, soil subsidence and related geologic events, and recommend measures to minimize hazards.
- PS-I-3.1.c In areas with identified geotechnical hazards, development shall conform to geotechnical report mitigation measures and/or project and site modifications to respond to site-specific hazards and conditions.
- PS-I-3.1d Require the use of drought-tolerant plants in hillside areas to reduce excessive watering of hillsides.

- PS-I-3.1.f Include site planning and building design features that reduce potential impacts from geologic hazards in the City's Design Guidelines, including provisions to limit damage to structures caused by subsidence and accepted grading practices on hillsides.
- PS-I-3.1.g Condition subdivision and lot line adjustment approvals to assure that lots on hillsides are large enough to provide flexibility in finding a stable buildable site and driveway location.
- PS-I-3.7.a Where known landslide areas exist, require comprehensive landslide mitigation actions to improve slope stability. This mitigation can include, with affected property owner support, landslide repair extending beyond the boundaries of a proposed development project site. As part of the review and approval of development and public works projects, the planting of vegetation on unstable slopes to protect structures at lower elevations or other appropriate measures shall be incorporated into the project design. Native plants may be required for landscaping in areas with landslide potential to eliminate the need for supplemental watering and to reduce the risk of landslide.
- PS-I-3.8.a Develop and periodically update City maps and information on seismic and landslide hazards for use in evaluating development proposals.

Impact 4.6-2: General Plan implementation has the potential to result in substantial soil erosion or the loss of topsoil (Less than Significant)

Soil erosion data for the City of Martinez were obtained from the NRCS and indicate a moderately low to moderate potential for erosion. Implementation of the General Plan would allow development and improvement projects that would involve some land clearing, mass grading, and other ground-disturbing activities that could temporarily increase soil erosion rates during and shortly after project construction. Construction-related erosion could result in the loss of a substantial amount of nonrenewable topsoil and could adversely affect water quality in nearby surface waters.

As future development and infrastructure projects are considered by the City of Martinez, each project will be evaluated for conformance with the CBSC, the General Plan, Zoning Ordinance, and other regulations. In addition to compliance with City standards and policies, the Regional Water Quality Control Board will require a project specific Storm Water Pollution Prevention Plan (SWPPP) to be prepared for each project that disturbs an area of one acre or larger. The SWPPPs would include project specific best management measures that are designed to control drainage and erosion. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

The General Plan Public Safety and Open Space and Conservation elements include goals, policies, and implementation measures related to development on slopes, revegetation of slopes, erosion and sediment control, drainage and erosion requirements, and stabilization slopes after grading. Policy PS-P-1.2 requires areas with identified geotechnical hazards to implement mitigation measures identified in a site-specific geotechnical report and/or the project and/or modify the site

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respond to hazards and conditions. PS-I-3.1.b requires new development and redevelopment projects in hillside areas or areas subject to subsidence to submit a geologic investigation and a report by a qualified engineering geologist with application materials. PS-I-3.1.f includes site planning and building design features that reduce potential impacts from geologic hazards in the City's Design Guidelines, including provisions to limit damage to structures caused by subsidence and accepted grading practices on hillsides. PS-I-3.7.a requires comprehensive landslide mitigation actions to improve slope stability in known landslide areas. OSC-P-2.2 and OSC-P-2.3 address erosion by discouraging large scale alteration of the topography and encouraging good grading practices. OSC-P-11.1 ensures grading, filling and construction activity near watercourses is conducted in such a manner as to minimize impacts from increased runoff, erosion, sedimentation, biochemical degradation, or thermal pollution. With the implementation of the goals, policies, and implementation measures in the General Plan, as well as applicable state and City requirements, potential impacts associated with erosion including the loss of topsoil would be **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Public Safety Element

Goals

- PS-G-1 Minimize the risks associated with seismic and subsidence activity.
- PS-G-2 Minimize risks of property damage and personal injury posed by geologic and seismic hazards.
- PS-G-3 Reduce risks associated with seismic and subsidence activity.

Policies

- PS-P-1.2 In areas with identified geotechnical hazards, development shall conform to the mitigation measures identified in a site-specific geotechnical report and/or the project and/or site shall be modified to respond to the site's hazards and conditions.
- PS-P-3.1 Consider prohibiting construction of buildings, roads, and utilities in landslide-prone hillsides.
- PS-P-3.4 Support efforts by state and regional agencies to promote public awareness of potential geologic and seismic hazards.
- PS-P-3.5 New development and redevelopment projects with the potential for geological hazards, such as slope failures or soil subsidence, shall be subject to geotechnical evaluation prior to approval.
- PS-P-3.6 Require that soils reports concerning hillside development are subject to peer review.
- PS-P-3.7 Conduct landslide repair operations in conjunction with new development.

PS-P-3.8 Maintain current information on seismic hazards and landslides.

Implementation Measures

PS-I-3.1.b Require new development and redevelopment projects in hillside areas or areas subject to subsidence to submit a geologic investigation and a report by a qualified engineering geologist with application materials. The reports shall address potential for slope failure, soil subsidence and related geologic events, and recommend measures to minimize hazards.

PS-I-3.1.c In areas with identified geotechnical hazards, development shall conform to geotechnical report mitigation measures and/or project and site modifications to respond to site-specific hazards and conditions.

PS-I-3.1.f Include site planning and building design features that reduce potential impacts from geologic hazards in the City's Design Guidelines, including provisions to limit damage to structures caused by subsidence and accepted grading practices on hillsides.

PS-I-3.7.a Where known landslide areas exist, require comprehensive landslide mitigation actions to improve slope stability. This mitigation can include, with affected property owner support, landslide repair extending beyond the boundaries of a proposed development project site. As part of the review and approval of development and public works projects, the planting of vegetation on unstable slopes to protect structures at lower elevations or other appropriate measures shall be incorporated into the project design. Native plants may be required for landscaping in areas with landslide potential to eliminate the need for supplemental watering and to reduce the risk of landslide.

PS- I-3.8.a Develop and periodically update City maps and information on seismic and landslide hazards for use in evaluating development proposals

Open Space and Conservation Element

Policies

OSC-P-2.2 Discourage the large scale alteration of the topography to accommodate incompatible development patterns to prevent severe erosion and hydrologic hazard through planning and engineering review of soils and hydrology reports to prevent severe erosion and hydrologic hazards.

OSC-P-2.3 Encourage grading alterations which do not induce or accelerate natural channel grading, sheet erosion, gulying and other forms of erosion, through adoption of conditions of approval as part of the development process.

OSC-P-11.1 Grading, filling and construction activity near watercourses shall be conducted in such a manner as to minimize impacts from increased runoff, erosion, sedimentation, biochemical degradation, or thermal pollution.

Implementation Measures

OSC-I-9.2d Enforce development guidelines that protect areas that are susceptible to erosion or other factors that would pose significant impacts to local waterways.

OSC-I-2.1.a In areas with identified geologic conditions, including, but not limited to unstable soils, landslides, or soil creep, development shall conform to geotechnical report mitigation measures and/or project and site modifications to respond to site-specific hazards and conditions, typically requiring the placement of hazard areas within parcels to be designated as open space.

Impact 4.6-3: General Plan implementation has the potential to be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse (Less than Significant)

Development allowed under the General Plan could result in the exposure of people and structures to conditions that have the potential for adverse effects associated with ground instability or failure. Soils and geologic conditions in the City of Martinez have the potential for landslides, lateral spreading, subsidence, liquefaction, or collapse. Each are discussed below:

Landslide: Figure 4.6-5 illustrates the landslide potential in the vicinity of the Study Area. Given the relatively level slopes throughout eastern portion of Martinez, the landslide potential is very low. The landslide potential increases in the foothills and mountainous areas to the west and south of the Study Area.

Lateral Spreading: The potential for lateral spreading is present where open banks and unsupported cut slopes provide a free face (unsupported vertical slope face). Ground shaking, especially when inducing liquefaction, may cause lateral spreading toward unsupported slopes. The greatest potential for lateral spreading in the Study Area is in the hilly terrain to the west and east that has a moderate potential for liquefaction.

Subsidence: The greatest potential for subsidence is in the northern portion of the Study Area where modern sediments include soft, water saturated muds, peat and loose sands. These soils are potentially susceptible to oxidation and are associated with land subsidence.

Liquefaction: Figure 4.6-2 illustrates the liquefaction potential in the vicinity of the Study Area. The majority of the Study Area is designated "very low" or "low" potential for liquefaction. The Alhambra Creek area has a "moderate" potential for liquefaction. Moving to the north along the waterfront the potential for liquefaction increases to "very high."

Collapse: Collapsible soils occur predominantly at the base of mountain ranges, where Holocene-age alluvial fan and wash sediments have been deposited during rapid run-off events. Differential settlement of structures typically occurs when heavily irrigated landscape areas are near a building

foundation. Examples of common problems associated with collapsible soils include tilting floors, cracking or separation in structures, sagging floors, and nonfunctional windows and doors. Existing alluvium within the Study Area may be susceptible to collapse and excessive settlements, which could create the risk of hydroconsolidation if these soils were exposed to excessive moisture. Soils found in the lowland areas are formed on level to gently sloping alluvial fans and flood plains.

Conclusion: As future development and infrastructure projects are considered by the City of Martinez, each project will be evaluated for conformance with the CBSC, the General Plan, Zoning Ordinance, and other regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. Future development and improvement projects would be required to prepare site-specific geotechnical studies to identify geologic and soil conditions specific to the site and provide design recommendations consistent with the requirements of State and City codes. In addition to the requirements associated with the CBSC and the Municipal Code, the General Plan includes policies and implementation measures to ensure that development, infrastructure, and other projects address potential ground failure and instability issues through compliance with applicable building standards, identification of potential geologic hazards, preparation of geotechnical studies, and appropriate site analysis and engineering measures to mitigate any identified hazards, including landslides, lateral spreading, liquefaction, and other potential ground failures, to an acceptable level. Policy PS-P-1.1 addresses compliance with contemporary seismic standards for existing and proposed structures. PS-P-1.2 ensures that in areas with identified geotechnical hazards, development shall conform to the mitigation measures identified in a site-specific geotechnical report and/or project and site modification to respond to the site's hazards and conditions. PS-P-3.5 requires new development and redevelopment projects with the potential for geological hazards to be subject to geotechnical evaluation prior to approval. PS-I-2.1a enforces the requirements of the CBC, including seismic design, and PS-I-2.1.b ensures the latest CBC is adopted. PS-I-3.1.f includes site planning and building design features that reduce potential impacts from geologic hazards in the City's Design Guidelines, including provisions to limit damage to structures caused by subsidence and accepted grading practices on hillsides. PS-I-3.7.a requires comprehensive landslide mitigation actions to improve slope stability in known areas of landslides. With the implementation of the policies and implementation measures in the General Plan, as well as applicable State and City codes, potential impacts associated with unstable geologic conditions with the potential to result in landslide, lateral spreading, subsidence, liquefaction or collapse would be **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Land Use Element

Goals

- LU-G-3 Protect environmentally and visually sensitive sites, hillsides, and natural resources wherever feasible.

4.6 GEOLOGY, SOILS, & MINERAL RESOURCES

Policies

- LU-P-3.4 Continue to uphold and maintain hillside development regulations that reduce the environmental risks associated with the grading of steep slopes by reducing the maximum permitted density of sloping sites, and generally prohibiting new development on very steep sites, such as those over 30%.
- LU-P-3.5 Slope stability shall be a primary consideration in the ability of land to be developed. Allow no development in landslide areas unless the area is stabilized through high-quality engineering design and construction as approved by the City.

Implementation Measures

- LU-I-3.4a Ensure that new development complies with the Hillside Development Regulations Ordinance of the Zoning Code for hillside properties with any areas of 10% or above slope, and generally prohibiting development on areas with slopes exceeding 30%.

Public Safety Element

Goals

- PS-G-1 Minimize the risks associated with seismic and subsidence activity.
- PS-G-2 Minimize risks of property damage and personal injury posed by geologic and seismic hazards.
- PS-G-3 Reduce risks associated with seismic and subsidence activity.

Policies

- PS-P-1.1 Assure existing and proposed structures are designed to contemporary standards for seismic safety.
- PS-P-1.2 In areas with identified geotechnical hazards, development shall conform to the mitigation measures identified in a site-specific geotechnical report and/or the project and/or site shall be modified to respond to the site's hazards and conditions.
- PS-P-2.1 Continue to use structural design criteria, codes, and other programs and policies to protect the public from seismic effects, such as liquefaction, seismic response of unconsolidated geologic formations, collapse-hazard buildings, and other seismic-induced failures of existing structures.
- PS-P-3.1 Consider prohibiting construction of buildings, roads, and utilities in landslide-prone hillsides.
- PS-P-3.2 Study on a site-specific basis, the density, suitability, and selection of appropriate construction techniques in those areas where moderate soil limitations are present.

- PS-P-3.4 Support efforts by state and regional agencies to promote public awareness of potential geologic and seismic hazards.
- PS-P-3.5 New development and redevelopment projects with the potential for geological hazards, such as slope failures or soil subsidence, shall be subject to geotechnical evaluation prior to approval.
- PS-P-3.6 Require that soils reports concerning hillside development are subject to peer review.
- PS-P-3.7 Conduct landslide repair operations in conjunction with new development.
- PS-P-3.8 Maintain current information on seismic hazards and landslides.

Implementation Measures

- PS-I-2.1.a Enforce requirements of the California Building Code, including seismic design provisions, as part of the building permit issuance and inspection process.
- PS-I-2.1.b Adopt updated versions of the California Building Code to address new technical and structural requirements to improve safety.
- PS-I-3.1.a The City may deny applications for development on excessively steep hillsides where slope stability mitigations are not deemed feasible by the City Engineer and where a significant hazard to City residents may result from construction of a proposed development.
- PS-I-3.1.b Require new development and redevelopment projects in hillside areas or areas subject to subsidence to submit a geologic investigation and a report by a qualified engineering geologist with application materials. The reports shall address potential for slope failure, soil subsidence and related geologic events, and recommend measures to minimize hazards.
- PS-I-3.1.c In areas with identified geotechnical hazards, development shall conform to geotechnical report mitigation measures and/or project and site modifications to respond to site-specific hazards and conditions.
- PS-I-3.1.d Require the use of drought-tolerant plants in hillside areas to reduce excessive watering of hillsides.
- PS-I-3.1.f Include site planning and building design features that reduce potential impacts from geologic hazards in the City's Design Guidelines, including provisions to limit damage to structures caused by subsidence and accepted grading practices on hillsides.
- PS-I-3.1.g Condition subdivision and lot line adjustment approvals to assure that lots on hillsides are large enough to provide flexibility in finding a stable buildable site and driveway location.

4.6 GEOLOGY, SOILS, & MINERAL RESOURCES

- PS-I-3.7.a Where known landslide areas exist, require comprehensive landslide mitigation actions to improve slope stability. This mitigation can include, with affected property owner support, landslide repair extending beyond the boundaries of a proposed development project site. As part of the review and approval of development and public works projects, the planting of vegetation on unstable slopes to protect structures at lower elevations or other appropriate measures shall be incorporated into the project design. Native plants may be required for landscaping in areas with landslide potential to eliminate the need for supplemental watering and to reduce the risk of landslide.
- PS-I-3.8.a Develop and periodically update City maps and information on seismic and landslide hazards for use in evaluating development proposals.

Impact 4.6-4: General Plan implementation has the potential to result in development on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property (Less than Significant)

Expansive soil properties can cause substantial damage to building foundations, piles, pavements, underground utilities, and/or other improvements. Structural damage, such as warping and cracking of improvements, and rupture of underground utility lines may occur if the expansive potential of soils is not considered during the design and construction of all improvements.

Linear extensibility is a method for measuring expansion potential. The expansion potential is low if the soil has a linear extensibility of less than three percent; moderate if three to six percent; high if six to nine percent; and very high if more than nine percent. If the linear extensibility is more than three, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

The linear extensibility of the soils within Martinez ranges from Low (1.1) to High (8.3). Figure 4.6-4 illustrates the shrink-swell potential of soils in the Study Area. The majority of the Study Area has moderate or high expansive soils, including most of the undeveloped land. The areas with moderate to high expansive soils would require special design considerations due to shrink-swell potentials.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the CBSC, City's General Plan, Zoning Ordinance, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

The Public Safety Element of the General Plan establishes goals, policies, and implementation measures that are designed to protect people and structures from geologic hazards. Goal PS-G-2 is to minimize the risk of property damage and personal injury posed by geologic and seismic hazards. PS-P-1.2 ensures that in areas with identified geotechnical hazards, development shall conform to the mitigation measures identified in a site-specific geotechnical report and/or project and site modification to respond to the site's hazards and conditions. PS-P-3.2 requires geologic study on a

site-specific basis, the density, suitability, and selection of appropriate construction techniques in areas where moderate soil limitations are present. PS-P-3.5 requires new development and redevelopment projects with the potential for geological hazards to be subject to geotechnical evaluation prior to approval. PS –I- 3.1.c provides development standards in areas with identified geotechnical hazards, and requires development to conform to geotechnical report mitigation measures and/or project and site modifications to respond to site-specific hazards and conditions.

Consistency with the General Plan goals, policies, and implementation measures would require a site-specific design-level geotechnical investigation, prepared by a licensed professional, and submitted to the City for review and confirmation. A site-specific geotechnical investigation would identify the potential for damage related to expansive soils and non-uniformly compacted fill and engineered fill. If a risk is identified, design criteria and specification options may include removal of the problematic soils, and replacement, as needed, with properly conditioned and compacted fill material that is designed to withstand the forces exerted during the expected shrink-swell cycles and settlements. Design criteria and specifications set forth in the design-level geotechnical investigation would ensure impacts from problematic soils are minimized. Therefore, this impact is considered **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Public Safety Element

Goals

PS-G-2 Minimize risks of property damage and personal injury posed by geologic and seismic hazards.

Policies

PS-P-1.2 In areas with identified geotechnical hazards, development shall conform to the mitigation measures identified in a site-specific geotechnical report and/or the project and/or site shall be modified to respond to the site's hazards and conditions.

PS-P-2.1 Continue to use structural design criteria, codes, and other programs and policies to protect the public from seismic effects, such as liquefaction, seismic response of unconsolidated geologic formations, collapse-hazard buildings, and other seismic-induced failures of existing structures.

PS-P-3.2 Study on a site-specific basis, the density, suitability, and selection of appropriate construction techniques in those areas where moderate soil limitations are present.

PS-P-3.4 Support efforts by state and regional agencies to promote public awareness of potential geologic and seismic hazards.

4.6 GEOLOGY, SOILS, & MINERAL RESOURCES

- PS-P-3.5 New development and redevelopment projects with the potential for geological hazards, such as slope failures or soil subsidence, shall be subject to geotechnical evaluation prior to approval.

Implementation Measures

- PS-I-2.1.a Enforce requirements of the California Building Code, including seismic design provisions, as part of the building permit issuance and inspection process.
- PS-I-2.1.b Adopt updated versions of the California Building Code to address new technical and structural requirements to improve safety.
- PS-I-3.1.b Require new development and redevelopment projects in hillside areas or areas subject to subsidence to submit a geologic investigation and a report by a qualified engineering geologist with application materials. The reports shall address potential for slope failure, soil subsidence and related geologic events, and recommend measures to minimize hazards.
- PS-I-3.1.c In areas with identified geotechnical hazards, development shall conform to geotechnical report mitigation measures and/or project and site modifications to respond to site-specific hazards and conditions.
- PS-I-3.1.f Include site planning and building design features that reduce potential impacts from geologic hazards in the City's Design Guidelines, including provisions to limit damage to structures caused by subsidence and accepted grading practices on hillsides.

Impact 4.6-5: General Plan implementation does not have the potential to have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water (Less than Significant)

Wastewater services are provided by Central Contra Costa Sanitary District (CCCSD) and Mt. View Sanitary District (MVSD). CCCSD treats about two-thirds of the wastewater generated within Martinez. MVSD treats the central eastern portion of the City. County Sanitation District (SD) No. 6 does use septic tank disposal of wastewater; however, no new connections to SD-6 would occur under the General Plan Update. No septic tanks or alternative waste water disposal systems utilized for new development are planned under the General Plan Update. Additionally General Plan Update Policy PS-P-3.3 discourages the use of septic tanks, tile filter fields, or sewerage ponds in areas where soil conditions constitute a severe limitation for such practices. With the implementation of the policies and implementation measures in the General Plan Update, as well as applicable State and City codes, potential impacts associated with having soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems would be **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS**Public Safety Element*****Policies***

- PS-P-1.2 In areas with identified geotechnical hazards, development shall conform to the mitigation measures identified in a site-specific geotechnical report and/or the project and/or site shall be modified to respond to the site's hazards and conditions.
- PS-P-3.3 Discourage for reasons of public health, the use of septic tanks, tile filter fields, or sewerage ponds in areas where soil conditions constitute a severe limitation for such practices.

Circulation Element***Goals***

- PCU-G-12 Continue to provide water service to residents by maintaining City water infrastructure and work with Contra Costa Water District (CCWD), Central Contra Costa Sanitary District (CCCSD), Contra Costa Sanitation District No. 6 (SD-6), and Mt. View Sanitary District (MVSD) so that demand for existing and future residents can be met.

Policies

- PCU-P-12.1 Continue working with CCWD, CCCSD, SD-6, and MVSD to ensure the demand can be met for existing and future residents.

Impact 3.6-6: General Plan implementation has the potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature (Less than Significant)

The Study Area is located on Intertidal deposits, fill material placed on top of coastal marshes, wetlands, and tidal areas that are not considered to be paleontologically significant. However, many of the rock formations that surround Martinez contain fossils, and it is possible that one or more of these fossil-bearing formations underlie the Study Area at unknown depths. Therefore, the Study Area has a low-to-moderate potential to contain fossils. It is possible, however, that a previously unknown paleontological resource could be discovered during future ground disturbing activities. Subsequent development and infrastructure projects would be analyzed for potential environmental impacts, consistent with the requirements of CEQA. Implementation Measures HCA-I-1.1f and HCA-I-1.1g provide guidance regarding the conservation of paleontological resources, ensuring that any unique paleontological resources discovered during future development activities are conserved appropriately. Compliance with these implementation measures would ensure potential impacts to paleontological resources, sites, or unique geologic features are reduced to **less than significant** levels.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Historical, Cultural & Arts Element

Goals

HCA-G-1 Foster protection, preservation, and rehabilitation of Martinez’s historic and cultural heritage.

Policies

HCA-P-1.10 Comply with State and federal laws to preserve and protect archaeological resources by complying with assessment and recovery of the resources.

Implementation Measures

HCA-I-1.1f Require a cultural and archaeological survey prior to approval of any project where a known historic, archaeological, or other cultural resource is located or which would require excavation in an area that is sensitive for cultural or archaeological resources. If significant cultural or archaeological resources, including historic and prehistoric resources, are identified, appropriate measures shall be implemented, such as avoidance, capping of the resource site, or documentation and conservation, to reduce adverse impacts to the resource.

HCA-I-1.1g Require all new development, infrastructure, and other ground-disturbing projects to comply with the following conditions in the event of an inadvertent discovery of cultural resources, archaeological resources, or human remains:

- a) If construction or grading activities result in the discovery of significant historic or prehistoric archaeological artifacts or unique paleontological resources, all work within 100 feet of the discovery shall cease, the City shall be notified, and the resources shall be examined by a qualified archaeologist, paleontologist, or historian for appropriate protections and preservation measures. Work may only resume when appropriate protections are in place and have been approved by the City.
- b) If human remains are discovered during any ground disturbing activity, work shall stop until the City and the Contra Costa County Coroner have been contacted and, if the remains are determined to be of Native American origin, consult with the Native American Heritage Commission for applicable State laws and codes, including identifying the most likely descendants for consultation on appropriate measures and special circumstances. Work may only resume when appropriate measures have been taken and approved by the City.

Impact 4.6-7: General Plan implementation 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 and 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 (Less than Significant)

The City has no known or identified mineral resources of regional or Statewide importance. As shown in Figure 4.6-6, the Study Area contains no land classified as MRZ-2. The Study Area does contain land designated MRZ-1 (areas where adequate information indicates that no significant mineral resources are present, or of little likelihood), MRZ-3 (an area containing mineral deposits, the significance of which cannot be evaluated from the available data), and MRZ-4 (areas where available information is inadequate for assignment to any other MRZ Zone).

The Study Area does not contain any “locally important mineral resource recovery sites.” The Study Area does not contain a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. Further, the General Plan Update would not change land currently designated as open space or conservation use land, except for an area along the waterfront that would be redesignated Marina and Waterfront (MW) and governed by the Marina and Waterfront Trust Land Use Plan. Future development would continue to occur in areas already designated for development. Therefore, implementation of the General Plan Update would not result in the loss of important mineral resources.

The Open Space and Conservation Element of the General Plan includes policies and actions to protect natural resources, including mineral resources. OSC-P-14.1 directs the City to protect and preserve open space and remaining natural areas, when feasible. There are no known mineral deposits or resources in the Study Area that are of significant value to the region or the State, nor does the Study Area contain any locally important mineral resource recovery sites. The General Plan Update would not change land currently designated as open space or conservation use land and future development would continue to occur in areas already designated for development. As such, implementation of the proposed General Plan Update would have a **less than significant** impact on this environmental topic, and no mitigation is required.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Land Use Element

Goals

- LU-G-3 Protect environmentally and visually sensitive sites, hillsides, and natural resources wherever feasible.

Open Space and Conservation Element

Goals

OSC-G-14 Ensure the preservation of natural resources by determining appropriate land use and compatibility with natural resources, the built environment, and open space.

Policies

OSC-P-14.1 The City will, where feasible, protect and preserve open space and remaining natural areas, including, oak/woodland, riparian vegetation, creeks, saltwater and freshwater marsh, native grasslands, wildlife corridors, and sensitive nesting and habitat areas.

Implementation Measures

OCS-I-14.4a Continue to work with federal, state and local agencies to promote long term sustainability of natural resources.

4.6.4 CUMULATIVE IMPACTS

Seismic, geologic, and soil conditions within the City of Martinez would vary by location and site-specific suitability for development would not be uniform. Future development within the region, including the City of Martinez, would contribute to the exposure of people and structures to geologic and seismic hazards. As concluded above, geologic and seismic hazards would be reduced to less than significant levels following conformance with the established regulatory framework (i.e., CBSC and Municipal Code requirements). If determined necessary, project-specific mitigation would be incorporated to reduce cumulative seismic, geologic, and soil impacts to a less than significant level. If a specific site were determined to create a significant impact that could not be feasibly mitigated, the site would not be appropriate for development. These processes, along with compliance with federal and State laws, local building codes, and public safety standards, would result in less than significant cumulative impacts related to potential seismic, geologic, and soil hazards. As a result, implementation of the General Plan Update would not result in cumulatively considerable impacts involving seismic and geologic hazards.

The Study Area has a low-to-moderate potential to contain fossils. Future development within the region, including the City of Martinez, has the potential to discover previously unknown paleontological resources or unique geologic features during future ground disturbing activities. As concluded above, subsequent development and infrastructure projects would be analyzed for potential environmental impacts, consistent with the requirements of CEQA. If determined necessary, project-specific mitigation would be incorporated to reduce cumulative impacts to paleontological resources and unique geologic features to a less than significant level. These processes, along with compliance with federal and State laws and implementation of the General Plan Update would ensure cumulative impacts to paleontological resources, sites, or unique geologic features are reduced to less than significant levels.

There is no land within the Study Area designated as MRZ-2. The Study Area does contain land designated MRZ-1 (areas where adequate information indicates that no significant mineral resources are present, or of little likelihood), MRZ-3 (an area containing mineral deposits, the significance of which cannot be evaluated from the available data), and MRZ-4 (areas where available information is inadequate for assignment to any other MRZ Zone). None of these MRZ categories located in the Study Area are considered significant mineral resources. The Study Area does not possess any mineral resource recovery sites. Further, the General Plan Update would not change land currently designated as open space or conservation use land. Future development would continue to occur in areas already designated for development. Therefore, implementation of the General Plan Update would not contribute to a cumulative impact related to mineral resources and cumulative impacts would be **less than significant**.

4.6.5 SIGNIFICANT UNAVOIDABLE IMPACTS

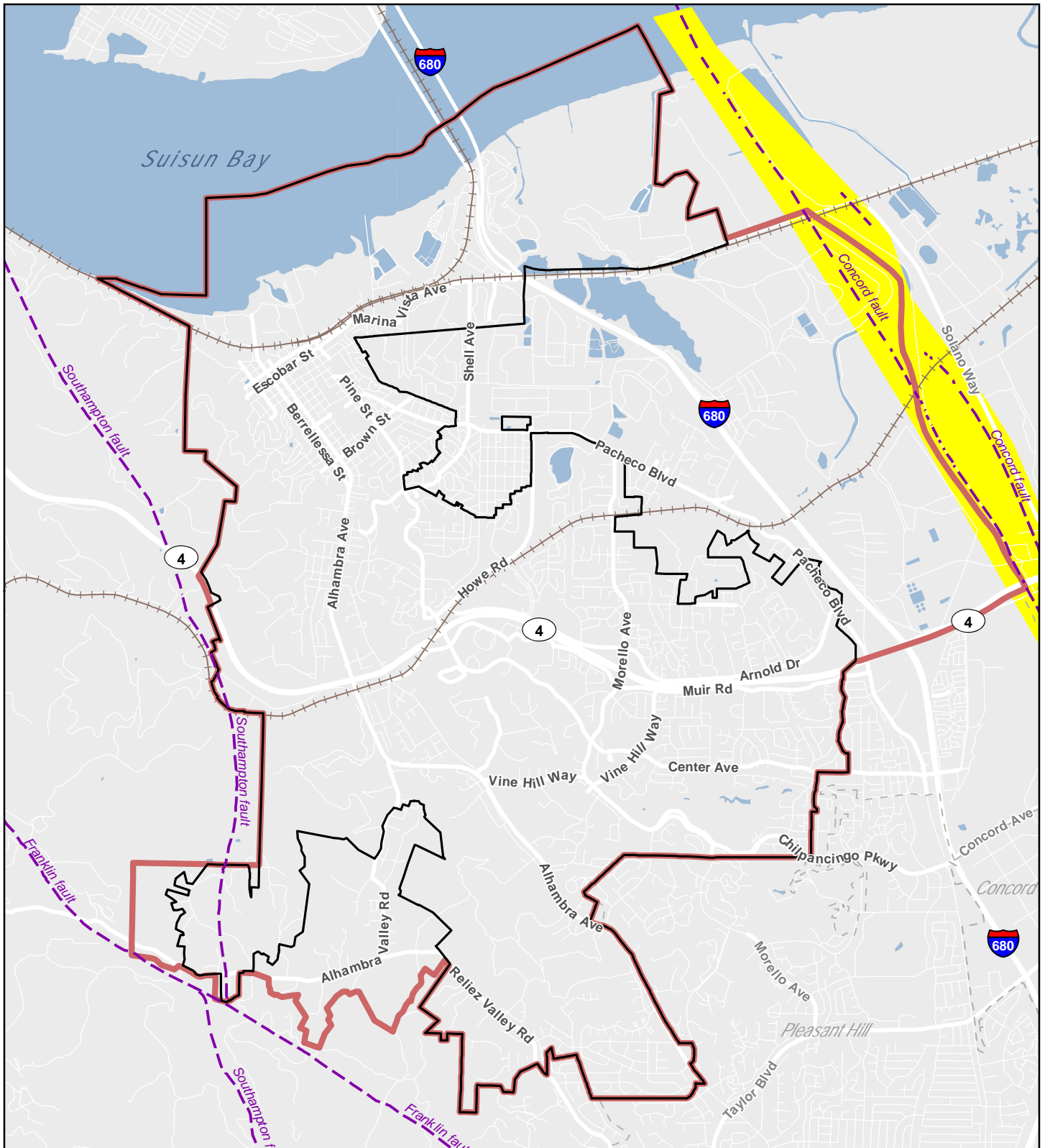
Geology, soils, and mineral resources impacts associated with the implementation of the General Plan Update would be **less than significant**. No significant unavoidable geology, soils, and mineral resources impacts would occur as a result of the General Plan Update.

4.6.6 REFERENCES

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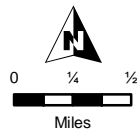
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Legend

- Martinez City Limits
- Martinez Sphere of Influence
- Other Incorporated Areas
- Quaternary Fault
- Alquist Priolo Fault Zone

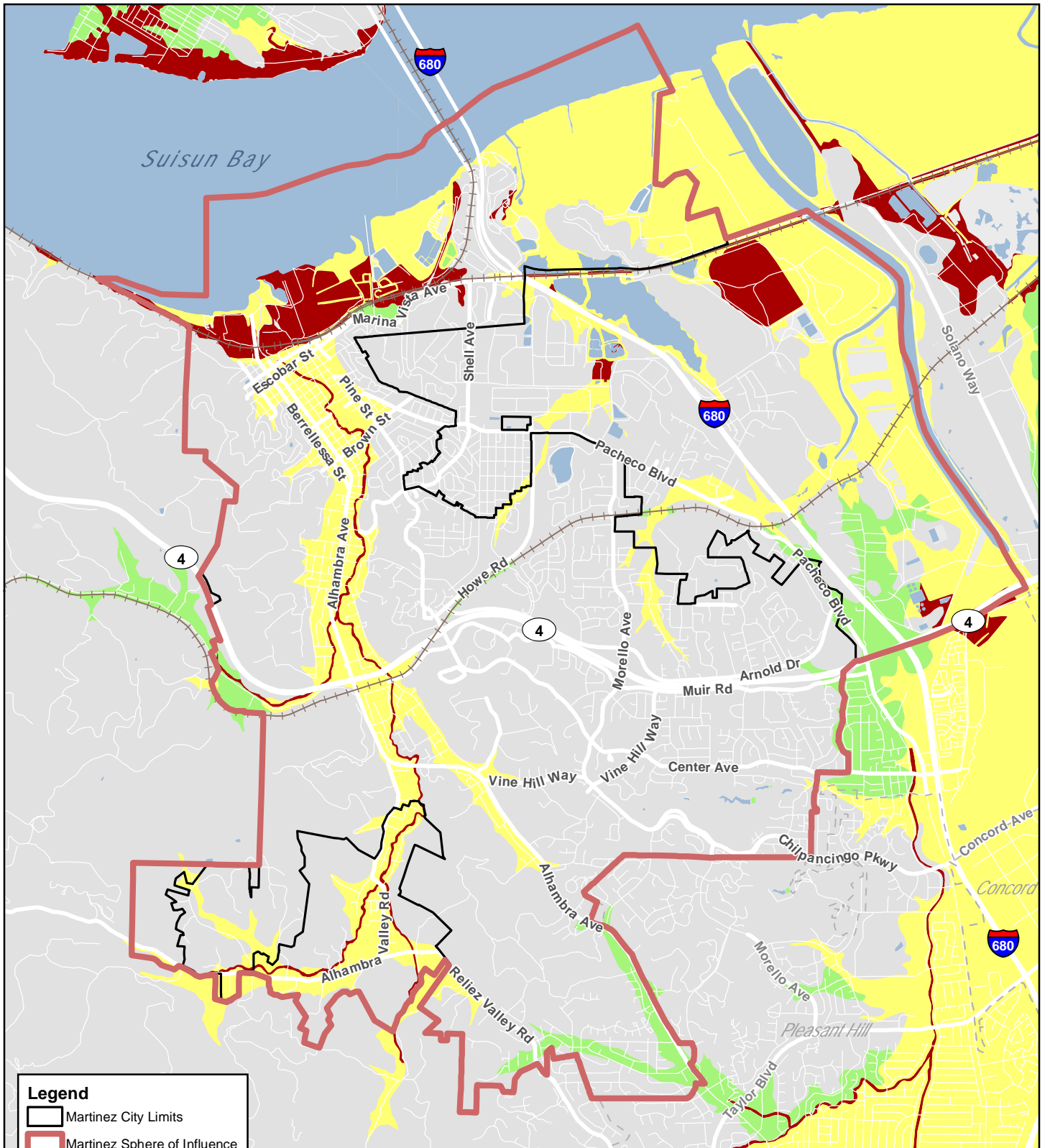


CITY OF MARTINEZ

Figure 4.6-1. Fault Map

Sources: US Geological Survey and California Geological Survey, Quaternary Fault and Fold Database of the United States, 5-5-2022; California Geological Survey Alquist-Priolo Zones; California State Geportal; Contra Costa County GIS. Map date: May 5, 2022.

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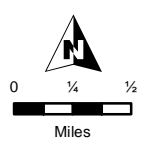


Legend

- Martinez City Limits
- Martinez Sphere of Influence
- Other Incorporated Areas

Liquefaction Susceptibility

- Very high
- High
- Moderate
- Low
- Very low

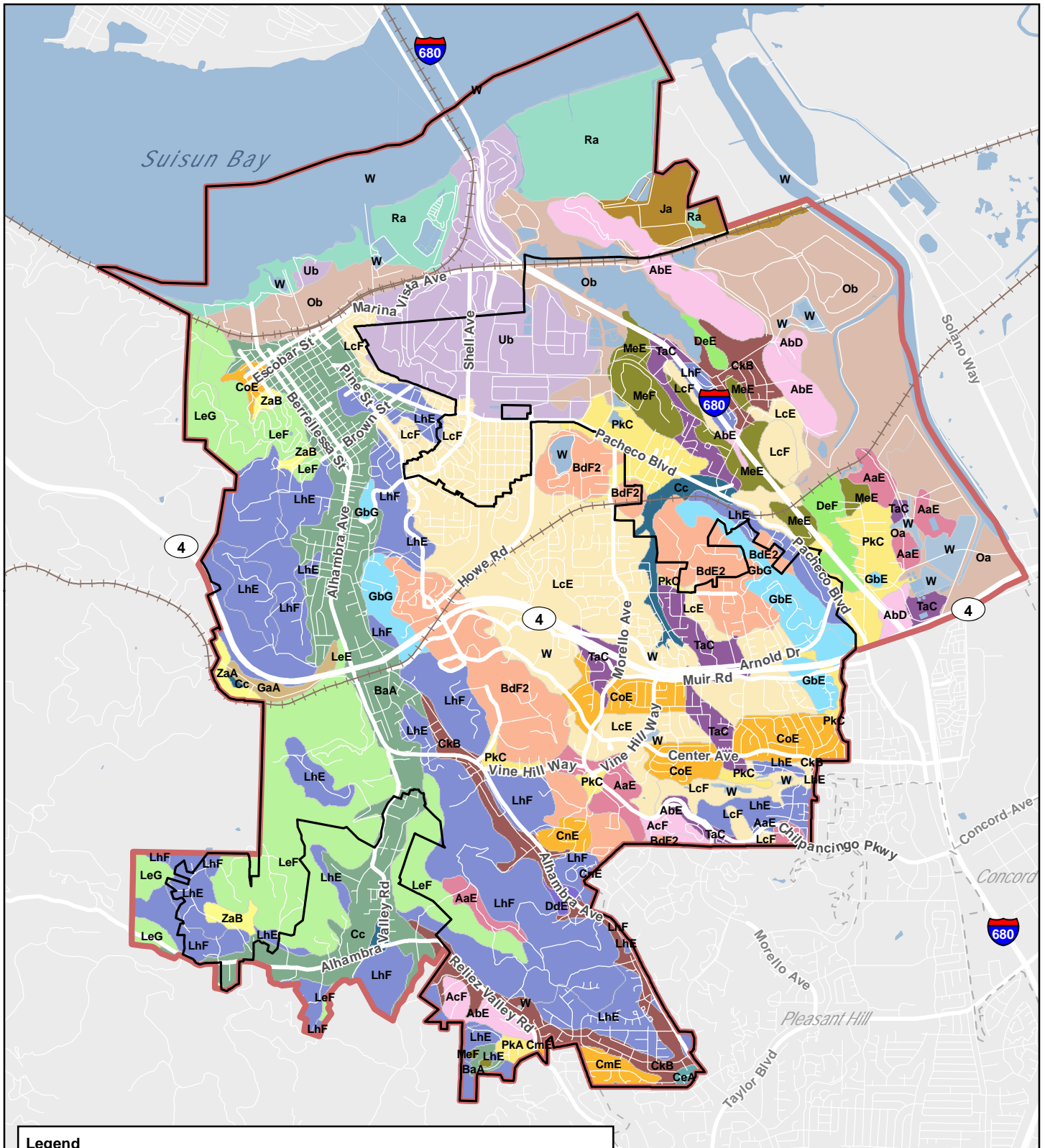


CITY OF MARTINEZ

Figure 4.6-2.
Liquefaction Susceptibility

Sources: ABAG/USGS/CGS Open File Report 06-1037: Liquefaction Susceptibility, 2006; California State Geportal; Contra Costa County GIS. Map date: August 1, 2022.

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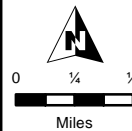


Legend

- | | | | |
|-------------------------------|---------------------------------|----------------------------------|-----------------------|
| Martinez City Limits | CeA: Conejo Clay Loam | Ja: Joice Muck | PkA/PkC: Positas Loam |
| Martinez Sphere of Influence | CkB: Cropley Clay | LcE/LcF: Lodo Clay Loam | Ra: Novato Silty Clay |
| AaE: Alo Clay | CmE/CnE/CoE: Fill | LeE/LeF/LeG: Los Gatos Loam | TaC: Tierra Loam |
| Abd/AbE/AcF: Altamont Clay | DdE: Diablo Clay | LhE/LhF: Los Osos Clay Loam | Ub: Urban land |
| BaA: Botella Clay Loam | DeE/DeF: Dibble Silty Clay Loam | W: Water | |
| GaA: Garretson Loam | MeE/MeF: Millsholm Loam | ZaA/ZaB: Zamora Silty Clay Loam | |
| BdE2/BdF2: Briones Loamy Sand | GaA: Garretson Loam | Oa/Ob: Omni Clay Loam/Silty Clay | |
| Cc: Clear Lake Clay | GbE/GbG: Gaviota Sandy Loam | | |

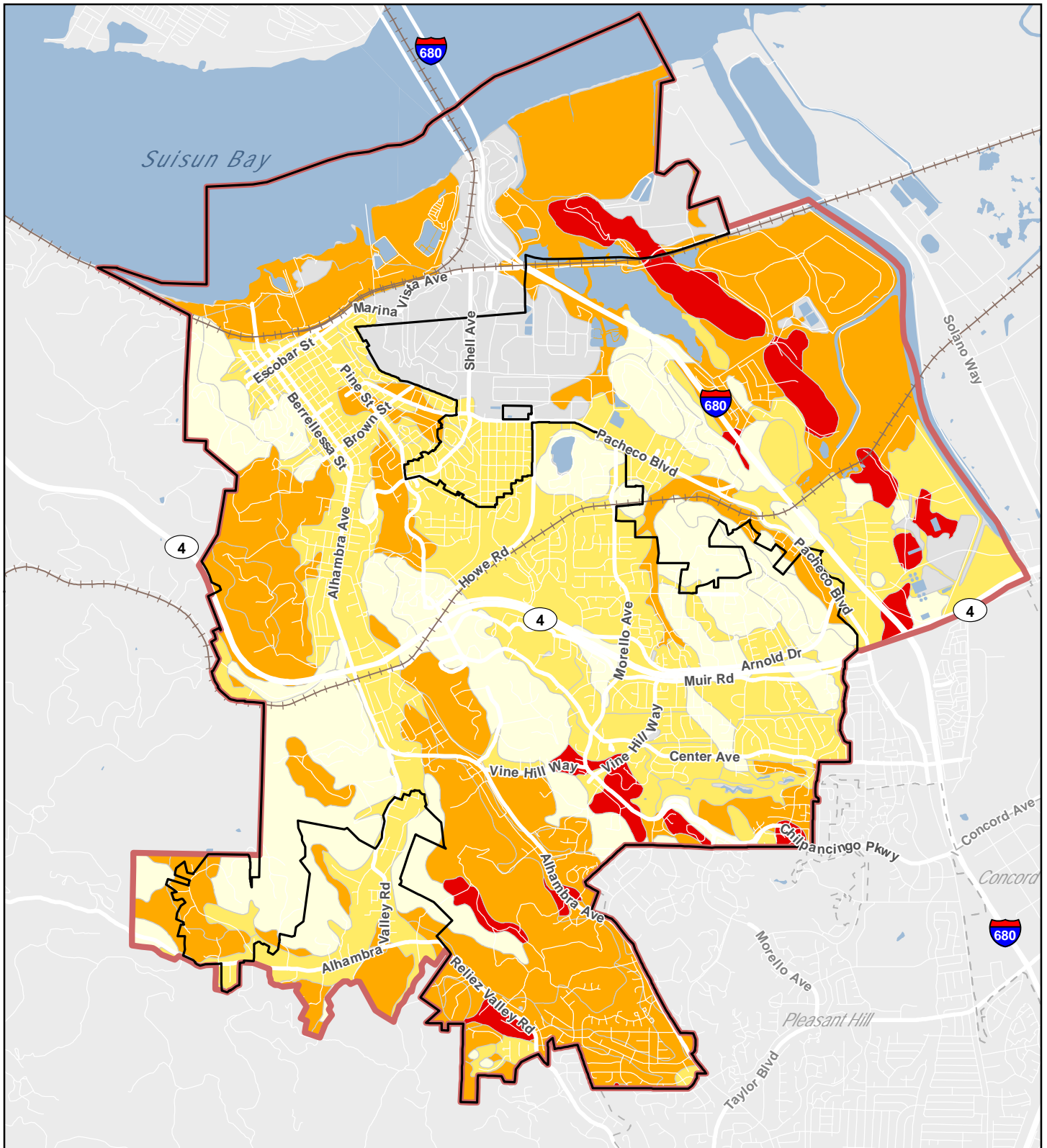
CITY OF MARTINEZ

Figure 4.6-3. Soils Map



Sources: NRCS Web Soil Survey, Contra Costa County, California (CA013) Tabular v16, Spatial v6; California State Geportal; Contra Costa County GIS. Map date: May 6, 2022.

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Legend

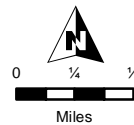
- Martinez City Limits
- Martinez Sphere of Influence

Shrink-Swell Potential (Linear Extensibility*)

- No Data
- Low (>0 - 3%)
- Moderate (3 - 6%)
- High (6 - 9%)
- Very High (>9%)

* Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. The volume change is reported as percent change for the whole soil. The amount and type of clay minerals in the soil influence volume change. For each soil layer, linear extensibility is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value. - USDA NRCS

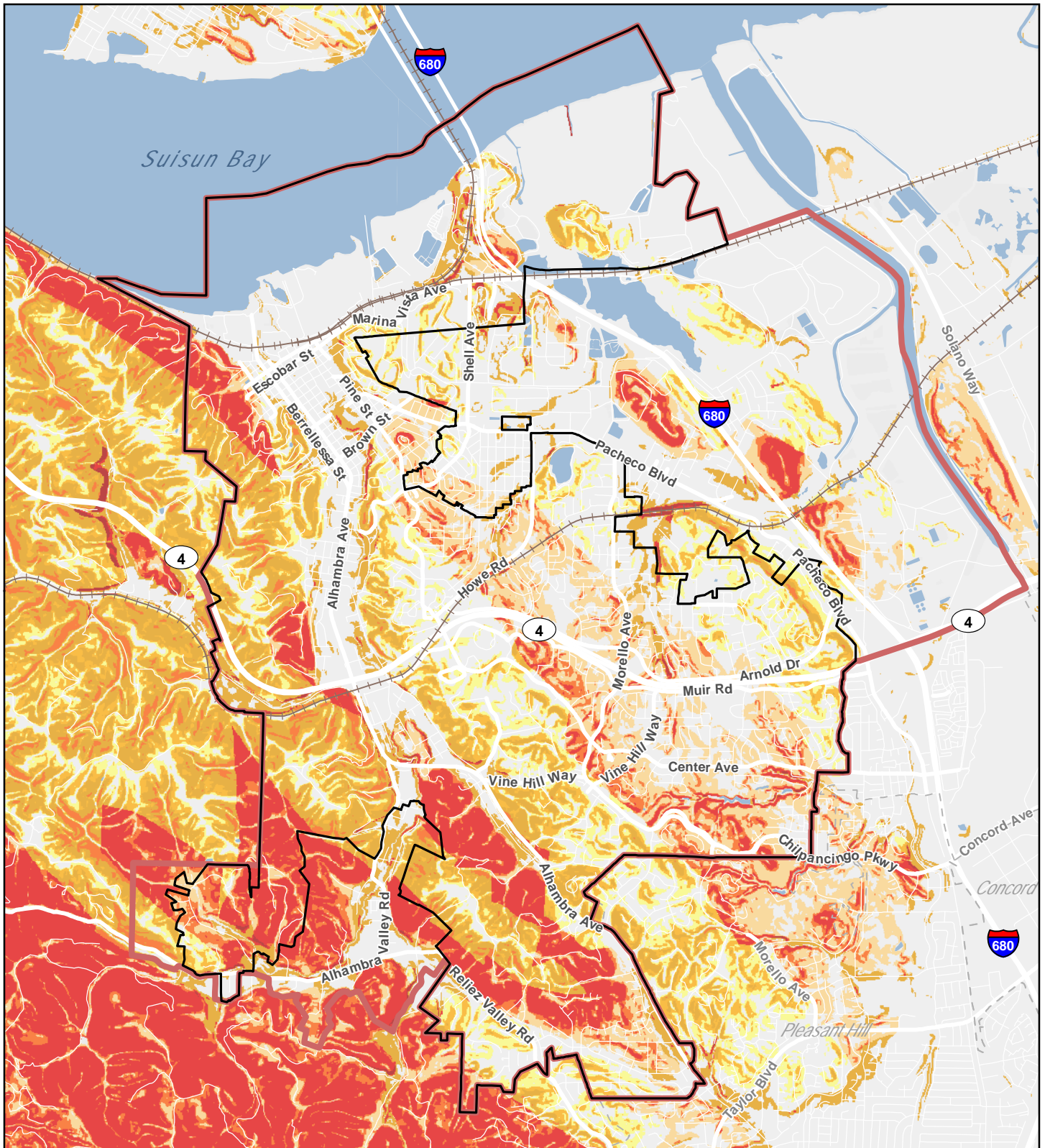
The map depicts the representative value of the surface layer.



CITY OF MARTINEZ
Figure 4.6-4. Shrink-Swell Potential of Soils

Sources: NRCS Web Soil Survey, Contra Costa County, California (CA013) Tabular v16, Spatial v6; California State Geoportal; Contra Costa County GIS. Map date: May 6, 2022.

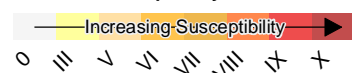
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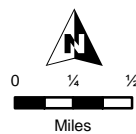
Legend

- Martinez City Limits
- Martinez Sphere of Influence
- Other Incorporated Areas

Landslide Susceptibility Class



This map shows the relative likelihood of deep landsliding based on regional estimates of rock strength and steepness of slopes. On the most basic level, weak rocks and steep slopes are more likely to generate landslides. The map uses detailed information on the location of past landslides, the location and relative strength of rock units, and steepness of slope in a methodology developed by Wilson and Keefer (1985). It is intended to provide a general overview of where landslides are more likely. The map does not include information on landslide triggering events, such as rainstorms or earthquake shaking, nor does it address susceptibility to shallow landslides such as debris flows. This map is not appropriate for evaluation of landslide potential at any specific site. - CGS 2018-11-9

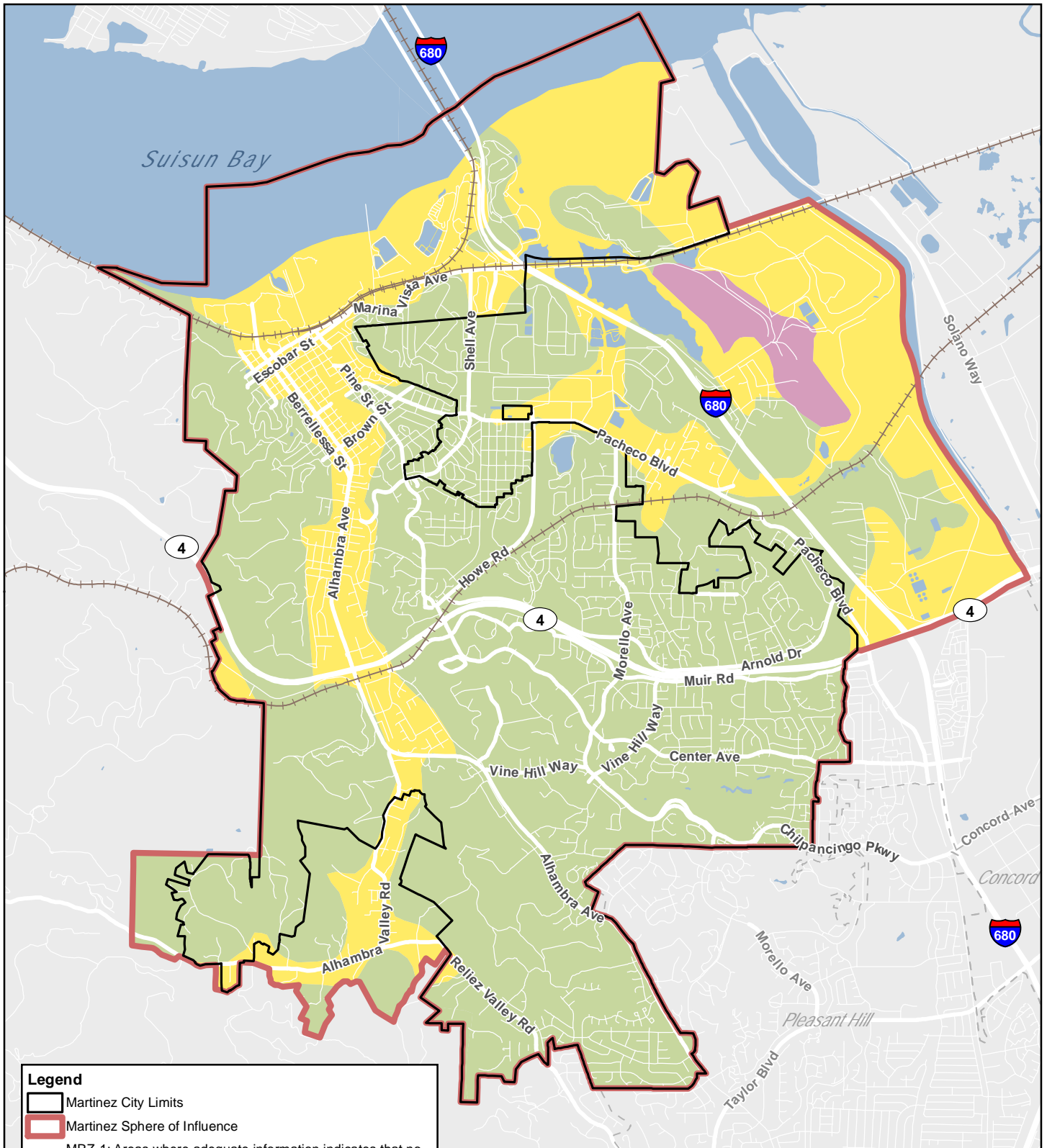


CITY OF MARTINEZ

**Figure 4.6-5.
Landslide Susceptibility**

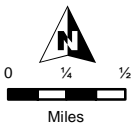
Sources: Susceptibility to Deep-Seated Landslides in California (California Geological Survey Map Sheet 58) Publication date 2011-05-01, Revision date 2018-09-24; California State Geportal; Contra Costa County GIS. Map date: May 3, 2022.

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Legend

- Martinez City Limits
- Martinez Sphere of Influence
- MRZ-1: Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists
- MRZ-2: Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence (none within the Martinez SOI)
- MRZ-3: Areas containing mineral deposits the significance of which cannot be evaluated from available data.
- MRZ-4: Areas where available information is inadequate for assignment to any other MRZ zone



CITY OF MARTINEZ

Figure 4.6-6. Mineral Resource Zones

Sources: DMG Open File Report 96-03, Update of Mineral Land Classification: Aggregate Materials in the South San Francisco Bay Production-Consumption Region, 1996; California State Geoportal; Contra Costa County GIS. Map date: May 6, 2022.

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This section provides a background discussion of greenhouse gases and climate change linkages and effects of global climate change, as well as energy use in Martinez. Regional greenhouse gas (GHG) emissions, climate change, and energy conservation impacts that could result from implementation of the General Plan Update are identified.

The analysis and discussion of the GHG, climate change, and energy conservation impacts in this section focuses on the General Plan's consistency with local, regional, statewide, and federal climate change and energy conservation planning efforts and discusses the context of these planning efforts as they relate to the proposed project. Disclosures of the estimated energy usage and GHG emissions due to implementation of the General Plan Update are provided.

Emissions of GHGs have the potential to adversely affect the environment in a cumulative context. The emissions from a single project will not cause global climate change; however, GHG emissions from multiple projects throughout the world could result in a cumulative impact with respect to global climate change. Therefore, the analysis of GHGs and climate change presented in this section is presented in terms of the proposed General Plan Update's contribution to cumulative impacts and potential to result in cumulatively considerable impacts related to GHGs and climate change.

During the NOP comment period, one comment letter was received regarding greenhouse gas emissions. In summary, the comment letter identified areas to be considered in the EIR, including the proposed project's consistency with plans and climate goals addressing greenhouse gas emissions and references available tools and resources provided on the Air District's CEQA website. All comments received during the 30-day NOP comment period are included within Appendix A.

4.7.1 ENVIRONMENTAL SETTING

GREENHOUSE GASES AND CLIMATE CHANGE LINKAGES

Various gases in the Earth's atmosphere, classified as atmospheric greenhouse gases (GHGs), play a critical role in determining the Earth's surface temperature. Solar radiation enters Earth's atmosphere from space, and a portion of the radiation is absorbed by the Earth's surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation.

Naturally occurring greenhouse gases include water vapor (H₂O), carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and ozone (O₃). Several classes of halogenated substances that contain fluorine, chlorine, or bromine are also greenhouse gases, but they are, for the most part, solely a product of industrial activities. Although the direct greenhouse gases CO₂, CH₄, and N₂O occur naturally in the atmosphere, human activities have changed their atmospheric concentrations. From the pre-industrial era (i.e., ending about 1750) to 2011, concentrations of these three greenhouse gases have increased globally by 40, 150, and 20 percent, respectively (IPCC, 2013).

Greenhouse gases, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse

effect. Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), ozone (O₃), water vapor, nitrous oxide (N₂O), and chlorofluorocarbons (CFCs).

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. In California, the transportation sector is the largest emitter of GHGs, followed by the industrial and electricity generation sectors (California Energy Commission, 2020).

As the name implies, global climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively. California produced 440 million gross metric tons of carbon dioxide equivalents (MMTCO₂e) in 2016 (California Air Resources Board, 2018a).

Carbon dioxide equivalents are a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential of a GHG, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2019, accounting for 41 percent of total GHG emissions in the State. This category was followed by the industrial sector (24 percent), the electricity generation sector (including both in-State and out-of-State sources) (14 percent), the agriculture sector (7 percent), the residential energy consumption sector (8 percent), and the commercial energy consumption sector (6 percent) (California Air Resources Board, 2022).

EFFECTS OF GLOBAL CLIMATE CHANGE

The effects of increasing global temperature are far-reaching and extremely difficult to quantify. The scientific community continues to study the effects of global climate change. In general, increases in the ambient global temperature as a result of increased GHGs are anticipated to result in rising sea levels, which could threaten coastal areas through accelerated coastal erosion, threats to levees and inland water systems and disruption to coastal wetlands and habitat.

If the temperature of the ocean warms, it is anticipated that the winter snow season would be shortened. Snowpack in the Sierra Nevada provides both water supply (runoff) and storage (within the snowpack before melting), which is a major source of supply for the State. The snowpack portion of the supply could potentially decline by 50 percent to 75 percent by the end of the 21st century (National Resources Defense Council, 2014). This phenomenon could lead to significant challenges securing an adequate water supply for a growing State population. Further, the increased ocean temperature could result in increased moisture flux into the State; however, since this would likely increasingly come in the form of rain rather than snow in the high elevations, increased precipitation

could lead to increased potential and severity of flood events, placing more pressure on California's levee/flood control system.

Sea level has risen approximately seven inches during the last century and it is predicted to rise an additional 22 to 35 inches by 2100, depending on the future GHG emissions levels (California Environmental Protection Agency, 2010). If this occurs, resultant effects could include increased coastal flooding, saltwater intrusion and disruption of wetlands. As the existing climate throughout California changes over time, mass migration of species, or failure of species to migrate in time to adapt to the perturbations in climate, could also result. Under the emissions scenarios of the Climate Scenarios report (California Environmental Protection Agency, 2010), the impacts of global warming in California are anticipated to include, but are not limited to, the following.

Public Health

Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation are projected to increase from 25 percent to 35 percent under the lower warming range and to 75 percent to 85 percent under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55 percent more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures will increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Water Resources

A vast network of man-made reservoirs and aqueducts capture and transport water throughout the State from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snow pack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snow pack, increasing the risk of summer water shortages.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater would degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta, a major State fresh water supply. Global warming is also projected to seriously affect agricultural areas, with California farmers projected to lose as much as 25 percent of the water supply they need; decrease the potential for hydropower production within the State (although the effects on hydropower are uncertain); and seriously harm winter tourism.

Under the lower warming range, the snow dependent winter recreational season at lower elevations could be reduced by as much as one month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing, snowboarding, and other snow dependent recreational activities.

If GHG emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snow pack by as much as 70 percent to 90 percent. Under the lower warming scenario, snow pack losses are expected to be only half as large as those expected if temperatures were to rise to the higher warming range. How much snow pack will be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snow pack would pose challenges to water managers, hamper hydropower generation, and nearly eliminate all skiing and other snow-related recreational activities.

Agriculture

Increased GHG emissions are expected to cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. Although higher carbon dioxide levels can stimulate plant production and increase plant water-use efficiency, California's farmers will face greater water demand for crops and a less reliable water supply as temperatures rise.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures are likely to worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits, and nuts.

Crop growth and development will be affected, as will the intensity and frequency of pest and disease outbreaks. Rising temperatures will likely aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

In addition, continued climate change will likely shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion is expected in many species while range contractions are less likely in rapidly evolving species with significant populations already established. Should range contractions occur, it is likely that new or different weed species will fill the emerging gaps. Continued global warming is also likely to alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

Climate change is expected to alter the distribution and character of natural vegetation thereby resulting in a possible increased risk of large of wildfires. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, landscape, and vegetation conditions, future risks will not be uniform throughout the State. For example, if precipitation increases as temperatures rise, wildfires in southern California are expected to increase by approximately 30 percent toward the end of the century. In contrast, precipitation decreases could increase wildfires in northern California by up to 90 percent.

Moreover, continued global warming will alter natural ecosystems and biological diversity within the State. For example, alpine and sub-alpine ecosystems are expected to decline by as much as 60 percent to 80 percent by the end of the century as a result of increasing temperatures. The productivity of the State's forests is also expected to decrease as a result of global warming.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures will increasingly threaten the State's coastal regions. Under the higher warming scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. The San Francisco Bay is vulnerable to a range of natural hazards, including storms, extreme high tides, and rising sea levels resulting from climate change.

Rising seas put new areas at risk of flooding and increase the likelihood and intensity of floods in areas that are already at risk. The State's Sea Level Rise Guidance Document (2018) projects a "likely" (66 percent probability) increase in sea level at the San Francisco tide gauge of 10 inches by 2040. By the end of the century, sea levels are likely to rise by 2.4 feet under a low emissions scenario and 3.4 feet under a high emissions scenario. Flooding will be more severe when combined with storm events.

Between 2014 to 2017, the City of Martinez participated in a sea level rise vulnerability, assessment and adaptation planning project with other Contra Costa jurisdictions and agencies. The objectives of the program were to understand how current and future coastal and riverine flooding may impact transportation and utility networks, industrial facilities and employment sites, residential neighborhoods and community facilities, and shoreline park and recreation facilities.

The final report, *Adapting to Rising Tides: Contra Costa County Assessment and Adaptation Project*, assessed two scenarios: 12 inches of sea level rise by 2030, and 66 inches of sea level rise by 2100. For each scenario, the report developed estimates for areas that would be permanently inundated (subject to daily tidal flooding) and temporarily inundated (subject to extreme tides only). The report determined that there is one structure in Martinez at risk for permanent sea level rise inundation by 2030, and ten structures at risk for temporary inundation. By 2100, the number of vulnerable buildings increases, with 23 structures in permanent inundation areas and 41 structures in temporary inundation areas. Approximately 523 acres of Martinez's land is expected to be permanently inundated by 2030. By 2100, that number increases to 821 acres (*Adapting to Rising Tides Program, 2017*).

GREENHOUSE GAS EMISSIONS INVENTORY

In partnership with ICLEI, the City conducted an inventory of City-wide greenhouse gas emissions for calendar year 2005. The inventory shows that Martinez residents, businesses, and government emitted approximately 321,000 metric tons (MT) of CO₂e in 2005. Figure 4.7-1 provides a graphic depiction of the relative contribution of different sources; Table 4.7-1 shows a breakdown of emissions by source. As shown in Figure 4.7-1 and Table 4.7-1, the emissions category contributing

the largest share of GHG emissions is transportation (emissions from trucks and autos), accounting for nearly half of the total inventory. Other major sources are residential and commercial electricity and natural gas use, and emissions related to solid waste collection and disposal. Municipal operations account for a relatively small part of the inventory (less than one percent) but are nonetheless important, because these emissions are under the direct control of the City.

FIGURE 4.7-1: CITY OF MARTINEZ 2005 GREENHOUSE GAS INVENTORY

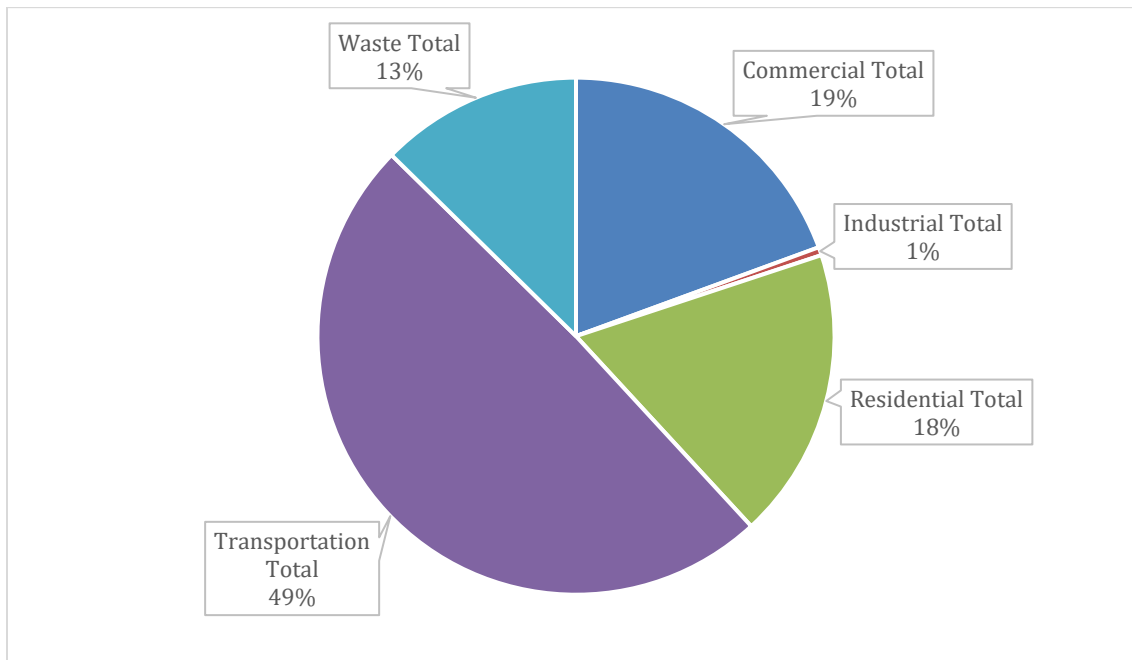


TABLE 4.7-1: CITY OF MARTINEZ 2005 GREENHOUSE GAS INVENTORY

Inventory	Sector	Emission Source	CO2e (metric tons)	Percent of Total Inventory	
Community	Commercial	Electricity	21,947	6.8%	
		Electricity - Direct Access	6,510	2.0%	
		Natural Gas	33,337	10.4%	
	<i>Commercial Total</i>			<i>61,794</i>	<i>19.2%</i>
	Industrial	Electricity	1,627	0.5%	
	<i>Industrial Total</i>			<i>1,627</i>	<i>0.5%</i>
	Residential	Electricity	22,457	7.0%	
		Natural Gas	35,549	11.1%	
		<i>Residential Total</i>			<i>58,006</i>
	Transportation	Diesel	8,218	2.6%	
		Gasoline	148,433	46.2%	
		<i>Transportation Total</i>			<i>156,651</i>
	Waste	ADC - Plant Debris	8,119	2.5%	
		Food Waste	6,111	1.9%	
		Paper Products	18,445	5.7%	
		Plant Debris	2,684	0.8%	
		Wood/Textiles	4,889	1.5%	
<i>Waste Total</i>			<i>40,248</i>	<i>12.5%</i>	
Community Total			318,326	99.1%	
Government	Electricity	Buildings	198	0.1%	
		Street Lighting	381	0.1%	
		Water/Sewage	1,035	0.3%	
	<i>Electricity Total</i>			<i>1,614</i>	<i>0.5%</i>
	Recreation	Electricity	88	0.0%	
	<i>Recreation Total</i>			<i>88</i>	<i>0.0%</i>
	Transportation	Commute - Gasoline	454	0.1%	
		Diesel	74	0.0%	
Gasoline		525	0.2%		
<i>Transportation Total</i>			<i>1,053</i>	<i>0.3%</i>	
Government Total			2,755	0.9%	
Total			321,081	100.0%	

ENERGY CONSUMPTION

Energy in California is consumed from a wide variety of sources. Fossil fuels (including gasoline and diesel fuel, natural gas, and energy used to generate electricity) are the most widely used form of energy in the State. However, renewable sources of energy (such as solar and wind) are growing in proportion to California's overall energy mix. A large driver of renewable sources of energy in California is the State's current Renewable Portfolio Standard (RPS), which requires the State to derive at least 60 percent of electricity generated from renewable resources by 2030, and to achieve zero-carbon emissions by 2045 (as passed in September 2018, under AB 100).

Overall, in 2019, California was the second-largest total energy consumer among U.S. states, but its per capita energy consumption was less than in all other states except Rhode Island, due in part to its mild climate and its energy efficiency programs (U.S. EIA, 2022). Many State regulations since the 1970s, including new building energy efficiency standards, vehicle fleet efficiency measures, as well as growing public awareness, have helped to keep per capita energy usage in the State in check.

The consumption of non-renewable energy (i.e. fossil fuels) associated with the operation of passenger, public transit, and commercial vehicles, results in GHG emissions that contribute to global climate change. Alternative fuels such as natural gas, ethanol, and electricity (unless derived from solar, wind, nuclear, or other energy sources that do not produce carbon emissions) also result in GHG emissions and contribute to global climate change.

Electricity Consumption

California relies on a regional power system composed of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. In 2020, the State received approximately 30 percent of its electricity supply from outside the State. In 2020, wind energy and hydropower facilities each supplied about one-fifth of California's imported electricity. Other, unspecified sources supplied nearly one-fifth of imports. Nuclear energy and natural gas each accounted for more than one-tenth, and coal fueled less than one-tenth. Other renewable resources accounted for most of the rest. Although coal-fired power plants supplied approximately nine percent of imports, coal's total contribution to the State's electricity supply from imports and in-state generation in 2020 was less than three percent (U.S. EIA, 2022). Renewable resources, including hydropower and small-scale (less than 1-megawatt), customer-sited solar photovoltaic (PV) systems, supplied nearly half of California's total in-state electricity generation despite a decline in hydroelectric generation caused by drought. Natural gas-fired power plants provided more than two-fifths of the State's total net generation and about half of California's utility-scale generation. Nuclear power's share of in-state generation was less than one-tenth, down from nearly one-fifth in 2011 (U.S. EIA, 2022).

California's renewable portfolio standard (RPS), enacted in 2002 and revised several times since then, required that 33 percent of electricity retail sales in California come from eligible renewable resources by 2020. The State met that goal three years before the target date. The RPS also requires that 60 percent of electricity retail sales come from renewables by 2030, and 100 percent by 2045. By 2020, qualifying renewables generated an estimated 36 percent of the State's electricity

retail sales (U.S. EIA. 2022). According to the California Energy Commission (CEC), total statewide electricity consumption was 272,576 gigawatt-hours (GWh) in 2020, down two percent from 2019. In 2020, electricity consumption in Contra Costa County was 8,622 GWh (California Energy Commission, 2022).

Residents of the City of Martinez have the option of choosing between two different electricity providers: Marin Clean Energy (MCE) and Pacific Gas & Electric (PG&E). As the primary power provider in Martinez, MCE is the default electricity provider for residents and businesses in the City, while PG&E continues to provide electric delivery, billing services, and power line maintenance (MCE, 2022). Customers may choose to opt out of MCE and return to PG&E as their energy provider.

MCE is a public, not-for-profit electricity provider serving 37 member communities across Contra Costa, Marin, Napa, and Solano counties. MCE provides its customers the choice of having 60 or 100 percent of their electricity supplied from renewable sources such as solar, wind, geothermal, hydroelectric, and bioenergy. MCE procures electricity from a variety of power suppliers who, much like PG&E, get their electricity from a variety of generation sources. At a minimum, 60 percent of the basic “Light Green” option comes from renewable sources. The “Deep Green” program provides electricity from 100 percent renewable sources. MCE reports to the California Public Utilities Commission and California Energy Commission on an annual basis to verify the amount of renewable energy procured for its customers.

Oil

The primary energy source for the United States is oil, which is refined to produce fuels like gasoline, diesel, and jet fuel. Oil is a finite, nonrenewable energy source. World consumption of petroleum products has grown steadily in the last several decades. As of 2018, world consumption of oil had reached 100 million barrels per day. The United States, with approximately five percent of the world’s population, accounts for approximately 21 percent of world oil consumption, or approximately 20.5 million barrels per day (U.S. EIA, 2020c). The transportation sector relies heavily on oil. In California, petroleum-based fuels currently provide approximately 96 percent of the State’s transportation energy needs.

Natural Gas/Propane

California's natural gas production is less than one-tenth of the State's total end-use sector consumption. In 2020, about 34 percent of the natural gas delivered to California consumers went to the State's industrial sector, and about 30 percent went to the electric power sector, where it fuels about half of the State's utility-scale electricity generation. The residential sector, where two-thirds of California households use natural gas for home heating, accounted for 23 percent of natural gas use, and the commercial sector used about 12 percent. The transportation sector uses compressed natural gas vehicle fuel, and it consumed the remaining 1 percent (U.S. EIA, 2022). PG&E is the largest publicly-owned utility in California and provides natural gas for residential, industrial, and agency consumers within the Contra Costa County area, including the City of Martinez. In 2020,

natural gas consumption in Contra Costa County was 1,061 million therms (California Energy Commission, 2022).

4.7.2 REGULATORY SETTING

FEDERAL ---

Clean Air Act

The Federal Clean Air Act (FCAA) was first signed into law in 1970. In 1977, and again in 1990, the law was substantially amended. The FCAA is the foundation for a national air pollution control effort, and it is composed of the following basic elements: NAAQS for criteria air pollutants, hazardous air pollutant standards, State attainment plans, motor National Ambient Air Quality Standards (NAAQS) vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

The U.S. Environmental Protection Agency (EPA) is responsible for administering the FCAA. The FCAA requires the EPA to set NAAQS for several problem air pollutants based on human health and welfare criteria. Two types of NAAQS were established: primary standards, which protect public health, and secondary standards, which protect the public welfare from non-health-related adverse effects such as visibility reduction.

On April 2, 2007, in the court case of *Massachusetts et al. vs. the USEPA et al.* (549 U.S. 497), the U.S. Supreme Court found that GHGs are air pollutants covered by the federal Clean Air Act (42 USC Sections 7401-7671q). The Supreme Court held that the Administrator of the United States Environmental Protection Agency must determine whether or not emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the Administrator is required to follow the language of Section 202(a) of the Clean Air Act. On December 7, 2009, the Administrator signed two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

These findings do not themselves impose any requirements on industry or other entities. However, this action was a prerequisite for implementing GHG emission standards for vehicles. In collaboration with the National Highway Traffic Safety Administration (NHTSA) and the California Air

Resources Board (CARB), the EPA developed emission standards for light-duty vehicles (2012-2025 model years), and heavy-duty vehicles (2014-2027 model years).

Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the Act, the National Highway Traffic and Safety Administration, which is part of the U.S. Department of Transportation (USDOT), is responsible for establishing additional vehicle standards and for revising existing standards.

Since 1990, the fuel economy standard for new passenger cars has been 27.5 mpg. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is determined on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the U.S. The Corporate Average Fuel Economy (CAFE) program, which is administered by the EPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The EPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on the information generated under the CAFE program, the USDOT is authorized to assess penalties for noncompliance.

Energy Policy Act of 1992 (EPAct)

The Energy Policy Act of 1992 (EPAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain federal, State, and local government and private fleets to purchase a percentage of light duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are included in EPAct. Federal tax deductions will be allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs.

Energy Policy Act of 2005

The Energy Policy Act of 2005 was signed into law on August 8, 2005. Generally, the act provides for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for a clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

Federal Climate Change Policy

According to the EPA, "the United States government has established a comprehensive policy to address climate change" that includes slowing the growth of emissions; strengthening science,

technology, and institutions; and enhancing international cooperation. To implement this policy, “the Federal government is using voluntary and incentive-based programs to reduce emissions and has established programs to promote climate technology and science.” The EPA administers multiple programs that encourage voluntary GHG reductions, including “ENERGY STAR”, “Climate Leaders”, and Methane Voluntary Programs. However, as of this writing, there are no adopted federal plans, policies, regulations, or laws directly regulating GHG emissions.

Mandatory Greenhouse Gas Reporting Rule

In 2009, EPA issued a final rule for mandatory reporting of GHGs from large GHG emissions sources in the United States. In general, this national reporting requirement will provide EPA with accurate and timely GHG emissions data from facilities that emit 25,000 metric tons or more of CO₂ per year. This publicly available data will allow the reporters to track their own emissions, compare them to similar facilities, and aid in identifying cost effective opportunities to reduce emissions in the future. Reporting is at the facility level, except that certain suppliers of fossil fuels and industrial GHGs along with vehicle and engine manufacturers will report at the corporate level. An estimated 85 percent of the total U.S. GHG emissions, from approximately 10,000 facilities, are covered by this final rule.

STATE

The California Legislature has enacted a series of statutes in recent years addressing the need to reduce GHG emissions all across the State. These statutes can be categorized into four broad categories: (i) statutes setting numerical statewide targets for GHG reductions, and authorizing CARB to enact regulations to achieve such targets; (ii) statutes setting separate targets for increasing the use of renewable energy for the generation of electricity throughout the State; (iii) statutes addressing the carbon intensity of vehicle fuels, which prompted the adoption of regulations by CARB; and (iv) statutes intended to facilitate land use planning consistent with statewide climate objectives. The discussion below will address each of these key sets of statutes, as well as CARB “Scoping Plans” intended to achieve GHG reductions under the first set of statutes and recent building code requirements intended to reduce energy consumption.

Statutes Setting Statewide GHG Reduction Targets

Assembly Bill 32 (Global Warming Solutions Act)

In 2006, the California State Legislature enacted the California Global Warming Solutions Act of 2006 (Health & Safety Code Section 38500 et seq.), also known as Assembly Bill (AB) 32 (Stats. 2006, ch. 488). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that was phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources.

Senate Bill 32

SB 32 (Stats. 2016, ch. 249) added Section 38566 to the Health and Safety Code. It provides that “[i]n adopting rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions authorized by [Division 25.5 of the Health and Safety Code], [CARB] shall ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide greenhouse gas emissions limit no later than December 31, 2030.” In other words, SB 32 requires California, by 2030, to reduce its statewide GHG emissions so that they are 40 percent below those that occurred in 1990.

Between AB 32 (2006) and SB 32 (2016), the Legislature has codified some of the GHG reduction targets included within Executive Orders issued by the last two Governors. The 2020 statewide GHG reduction target in AB 32 was consistent with the second of three statewide emissions reduction targets set forth in former Governor Arnold Schwarzenegger’s 2005 Executive Order known as S-3-05, which is expressly mentioned in AB 32. (See Health & Safety Code Section 38501, subd. (i).) That Executive Branch document included the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels. To meet the targets, the Governor directed several State agencies to cooperate in the development of a climate action plan. The Secretary of Cal-EPA leads the Climate Action Team, whose goal is to implement global warming emission reduction programs identified in the Climate Action Plan and to report on the progress made toward meeting the emission reduction targets established in the executive order.

In 2015, Governor Brown issued Executive Order, B-30-15, which created a “new interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 is established in order to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050.” SB 32 codified this target.

In 2018, the Governor issued Executive Order B-55-18, which established a statewide goal to “achieve carbon neutrality as soon as possible, and no later than 2045, and maintain and achieve negative emissions thereafter.” The order directs CARB to work with other State agencies to identify and recommend measures to achieve those goals.

The Legislature has not yet set a 2045 or 2050 target in the manner done for 2020 and 2030 through AB 32 and SB 32, though references to a 2050 target can be found in statutes outside the Health and Safety Code. Senate Bill 350 (SB 350) (Stats. 2015, ch. 547) added to the Public Utilities Code language that essentially puts into statute the 2050 GHG reduction target already identified in Executive Order S-3-05, albeit in the limited context of new State policies (i) increasing the overall share of electricity that must be produced through renewable energy sources and (ii) directing certain State agencies to begin planning for the widespread electrification of the California vehicle fleet. Section 740.12(a)(1)(D) of the Public Utilities Code now states that “[t]he Legislature finds and declares [that] ... [r]educing emissions of [GHGs] to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050 will require widespread transportation electrification.” Furthermore, Section 740.12(b) now states that the California Public Utilities Commission (PUC), in

consultation with CARB and the California Energy Commission (CEC), must “direct electrical corporations to file applications for programs and investments to accelerate widespread transportation electrification to reduce dependence on petroleum, meet air quality standards, ... and reduce emissions of greenhouse gases to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050.”

Statute Setting Target for the Use of Renewable Energy for the Generation of Electricity

California Renewables Portfolio Standard

In 2002, the Legislature enacted Senate Bill 1078 (Stats. 2002, ch. 516), which established the Renewables Portfolio Standard program, requiring retail sellers of electricity, including electrical corporations, community choice aggregators, and electric service providers, to purchase a specified minimum percentage of electricity generated by eligible renewable energy resources such as wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas. (See Pub. Utilities Code, Section 399.11 et seq. [subsequently amended].) The legislation set a target by which 20 percent of the State’s electricity would be generated by renewable sources. (Pub. Utility Code, Section 399.11, subd. (a) [subsequently amended].) As described in the Legislative Counsel’s Digest, Senate Bill 1078 required “[e]ach electrical corporation ... to increase its total procurement of eligible renewable energy resources by at least one percent per year so that 20 percent of its retail sales are procured from eligible renewable energy resources. If an electrical corporation fails to procure sufficient eligible renewable energy resources in a given year to meet an annual target, the electrical corporation would be required to procure additional eligible renewable resources in subsequent years to compensate for the shortfall, if funds are made available as described. An electrical corporation with at least 20 percent of retail sales procured from eligible renewable energy resources in any year would not be required to increase its procurement in the following year.”

In 2006, the Legislature enacted Senate Bill 107 (Stats. 2006, ch. 464), which modified the Renewables Portfolio Standard to require that at least 20 percent of electricity retail sales be served by renewable energy resources by year 2010. (Pub. Utility Code, Section 399.11, subd (a) [subsequently amended].)

Senate Bill X1-2 (Stats. 2011, 1st Ex. Sess., ch. 1) set even more aggressive statutory targets for renewable electricity, culminating in the requirement that 33 percent of the State’s electricity come from renewables by 2020. This legislation applies to all electricity retailers in the State, including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities must meet renewable energy goals of 20 percent of retail sales from renewables by the end of 2013, 25 percent by the end of 2016, and 33 percent by the end of 2020. (See Pub. Utility Code, Section 399.11 et seq. [subsequently amended].)

SB 350, discussed above, increases the Renewable Portfolio Standard to require 50 percent of electricity generated to be from renewables by 2030. (Pub. Utility Code, Section 399.11, subd (a); see also Section 399.30, subd. (c)(2).) Of equal significance, Senate Bill 350 also embodies a policy encouraging a substantial increase in the use of electric vehicles. As noted earlier, Section 740.12(b)

of the Public Utilities Code now states that the PUC, in consultation with CARB and the CEC, must “direct electrical corporations to file applications for programs and investments to accelerate widespread transportation electrification to reduce dependence on petroleum, meet air quality standards, ... and reduce emissions of greenhouse gases to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050.”

Executive Order, B-16-12, issued in 2012, embodied a similar vision of a future in which zero-emission vehicles (ZEV) will play a big part in helping the State meet its GHG reduction targets. Executive Order B-16-12 directed State government to accelerate the market for ZEVs in California through fleet replacement and electric vehicle infrastructure. The Executive Order set the following targets:

- By 2015, all major cities in California will have adequate infrastructure and be “ZEV ready”;
- By 2020, the State will have established adequate infrastructure to support 1 million ZEVs in California;
- By 2025, there will be 1.5 million ZEVs on the road in California; and
- By 2050, virtually all personal transportation in the State will be based on ZEVs, and GHG emissions from the transportation sector will be reduced by 80 percent below 1990 levels.

In 2018, Senate Bill 100 (Stats. 2018, ch. 312) revised the above-described deadlines and targets so that the State will have to achieve a 50 percent renewable resources target by December 31, 2026 (instead of by 2030) and achieve a 60 percent target by December 31, 2030. The legislation also establishes a State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045.

In summary, California has set a statutory goal of requiring that, by 2030, 60 percent of the electricity generated in California should be from renewable sources, with increased generation capacity sufficient to allow the mass conversion of the statewide vehicle fleet from petroleum-fueled vehicles to electrical vehicles and/or other ZEVs. By 2045, all electricity must come from renewable resources and other carbon-free resources. Former Governor Brown established a goal for the State of achieving carbon neutrality as soon as possible and by no later than 2045. The Legislature is thus looking to California drivers to buy electric cars, powered by green energy, to help the State meet its aggressive statutory goal, created by SB 32, of reducing statewide GHG emissions by 2030 to 40 percent below 1990 levels. Another key prong to this strategy is to make petroleum-based fuels less carbon-intensive. A number of statutes in recent years have addressed that strategy. These are discussed immediately below.

Statutes and CARB Regulations Addressing the Carbon Intensity of Petroleum-based Transportation Fuels

Assembly Bill 1493, Pavley Clean Cars Standards

In 2002, the Legislature enacted Assembly Bill 1493 (“Pavley Bill”) (Stats. 2002, ch. 200), which directed CARB to develop and adopt regulations that achieve the maximum feasible reduction of

GHGs emitted by passenger vehicles and light-duty trucks beginning with model year 2009. (See Health and Safety Code Section 43018.5.) In September 2004, pursuant to this directive, CARB approved regulations to reduce GHG emissions from new motor vehicles beginning with the 2009 model year. These regulations created what are commonly known as the “Pavley standards.” In September 2009, CARB adopted amendments to the Pavley standards to reduce GHG emissions from new motor vehicles through the 2016 model year. These regulations created what are commonly known as the “Pavley II standards.” (See California Code of Regulations, Title 13, Sections 1900, 1961, and 1961.1 et seq.)

In 2012, CARB adopted an Advanced Clean Cars (ACC) program aimed at reducing both smog-causing pollutants and GHG emissions for vehicles model years 2017-2025. This historic program, developed in coordination with the USEPA and NHTSA, combined the control of smog-causing (criteria) pollutants and GHG emissions into a single coordinated set of requirements for model years 2015 through 2025. The regulations focus on substantially increasing the number of plug-in hybrid cars and zero-emission vehicles in the vehicle fleet and on making fuels such as electricity and hydrogen readily available for these vehicle technologies. The components of the ACC program are 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 in the 2018 through 2025 model years. (See California Code of Regulations, Title 13, Sections 1900, 1961, 1961.1, 1961.2, 1961.3, 1965, 1968.2, 1968.5, 1976, 1978, 2037, 2038, 2062, 2112, 2139, 2140, 2145, 2147, 2235, and 2317 et seq.)

It is expected that the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 34 percent below 2016 levels by 2025, all while improving fuel efficiency and reducing motorists’ costs.

Cap and Trade Program

In 2011, CARB adopted the final cap-and-trade program for California (See California Code of Regulations, Title 17, Sections 95801-96022.) The California cap-and-trade program creates a market-based system with an overall emissions limit for affected sectors. The program is intended to regulate more than 85 percent of California’s emissions and staggers compliance requirements according to the following schedule: (1) electricity generation and large industrial sources (2012) and (2) fuel combustion and transportation (2015).

According to 2012 CARB guidance, “[t]he Cap-and-Trade Program will reduce GHG emissions from major sources (covered entities) by setting a firm cap on statewide GHG emissions while employing market mechanisms to cost-effectively achieve the emission-reduction goals. The statewide cap for GHG emissions from major sources, which is measured in metric tons of carbon dioxide equivalent (MTCO_{2e}), will commence in 2013 and decline over time, achieving GHG emission reductions throughout the program’s duration. Each covered entity will be required to surrender one permit to emit (the majority of which will be allowances, entities are also allowed to use a limited number of

CARB offset credits) for each ton of GHG emissions they emit. Some covered entities will be allocated some allowances and will be able to buy additional allowances at auction, purchase allowances from others, or purchase offset credits.”

The guidance continues to say that “[s]tarting in 2012, major GHG-emitting sources, such as electricity generation (including imports), and large stationary sources (e.g., refineries, cement production facilities, oil and gas production facilities, glass manufacturing facilities, and food processing plants) that emit more than 25,000 MTCO₂e per year will have to comply with the Cap-and-Trade Program. The program expands in 2015 to include fuel distributors (natural gas and propane fuel providers and transportation fuel providers) to address emissions from transportation fuels, and from combustion of other fossil fuels not directly covered at large sources in the program’s initial phase.” In early April 2017, the Third District Court of Appeal upheld the lawfulness of the cap-and-trade program as a “fee” rather than a “tax.” (See *California Chamber of Commerce et al. v. State Air Resources Board et al.* (2017) 10 Cal.App.5th 604.)

AB 398 (Stats. 2017, ch. 135) extended the life of the existing Cap and Trade Program through December 2030.

Statute Intended to Facilitate Land Use Planning Consistent with Statewide Climate Objectives

California Senate Bill 375 (Sustainable Communities Strategy)

This 2008 legislation built on AB 32 by setting forth a mechanism for coordinating land use and transportation on a regional level for the purpose of reducing GHGs. The focus is to reduce miles traveled by passenger vehicles and light trucks. CARB is required to set GHG reduction targets for each metropolitan region for 2020 and 2035. Each of California’s metropolitan planning organizations then prepares a sustainable communities strategy that demonstrates how the region will meet its GHG reduction target through integrated land use, housing, and transportation planning. Once adopted by the metropolitan planning organizations, the sustainable communities strategy is to be incorporated into that region’s federally enforceable regional transportation plan. If a metropolitan planning organization is unable to meet the targets through the sustainable communities strategy, then an alternative planning strategy must be developed which demonstrates how targets could be achieved, even if meeting the targets is deemed to be infeasible.

Climate Change Scoping Plans

AB 32 Scoping Plan

On December 11, 2008, CARB adopted its *Climate Change Scoping Plan* (Scoping Plan), which functions as a roadmap of CARB’s plans to achieve GHG reductions in California required by Assembly Bill (AB) 32 through subsequently enacted regulations. The Scoping Plan contains the main strategies California will implement to reduce carbon dioxide-equivalent (CO₂e) emissions by 169 million metric tons (MMT), or approximately 30 percent, from the State’s projected 2020 emissions level of 596 MMT of CO₂e under a business-as-usual scenario. (This is a reduction of 42 MMT CO₂e, or almost 10 percent, from 2002–2004 average emissions, but requires the reductions in the face of

population and economic growth through 2020.) The Scoping Plan also breaks down the amount of GHG emissions reductions CARB recommends for each emissions sector of the State's GHG inventory. The Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards:

- improved emissions standards for light-duty vehicles (estimated reductions of 31.7 MMT CO₂e);
- the Low-Carbon Fuel Standard (15.0 MMT CO₂e);
- energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO₂e); and
- a renewable portfolio standard for electricity production (21.3 MMT CO₂e).

CARB updated the Scoping Plan in 2013 (*First Update to the Scoping Plan*) and again in 2017 (the *Final Scoping Plan*). The 2013 Update built upon the initial Scoping Plan with new strategies and recommendations, and also set the groundwork to reach the long-term goals set forth by the State. Successful implementation of existing programs (as identified in previous iterations of the Scoping Plan) has put California on track to meet the 2020 target.

With the passage of SB 32, the Legislature also passed companion legislation AB 197, which provides additional direction for developing the scoping plan. In response, CARB adopted an updated Scoping Plan in December 2017. The document reflects the 2030 target of reducing statewide GHG emissions by 40 percent below 1990 levels codified by SB 32. The GHG reduction strategies in the plan that CARB will implement to meet the target include:

- SB 350 - achieve 50 percent Renewables Portfolio Standard (RPS) by 2030 and doubling of energy efficiency savings by 2030;
- Low Carbon Fuel Standard - increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020);
- Mobile Source Strategy (Cleaner Technology and Fuels Scenario) - maintaining existing GHG standards for light- and heavy-duty vehicles, put 4.2 million zero-emission vehicles on the roads, and increase zero-emission buses, delivery and other trucks;
- Sustainable Freight Action Plan - improve freight system efficiency, maximize use of near-zero emission vehicles and equipment powered by renewable energy, and deploy over 100,000 zero-emission trucks and equipment by 2030;
- Short-Lived Climate Pollutant Reduction Strategy - reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030 and reduce emissions of black carbon 50 percent below 2013 levels by 2030;
- SB 375 Sustainable Communities Strategies - increased stringency of 2035 targets;

- Post-2020 Cap-and-Trade Program - declining caps, continued linkage with Québec, and linkage to Ontario, Canada;
- 20 percent reduction in GHG emissions from the refinery sector; and
- By 2018, develop an Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

The 2017 Update relies on the preexisting programs paired with an extended, more stringent Cap-and-Trade Program, to deliver climate, air quality, and other benefits. The 2017 Update identifies new technologically and feasible and cost-effective strategies to ensure that California meets its GHG reduction goals.

CARB released the Draft 2022 Climate Change Scoping Plan for public review in May 2022 and anticipates adoption of the document in the second half of 2022. The 2022 Scoping Plan Update assesses progress toward the statutory 2030 target, while laying out a path to achieving carbon neutrality no later than 2045.

Building Code Requirements Intended to Reduce GHG Emissions

California Energy Code

The California Energy Code (California Code of Regulations, Title 24, Part 6), which is incorporated into the Building Energy Efficiency Standards, was first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Although these standards were not originally intended to reduce GHG emissions, increased energy efficiency results in decreased GHG emissions because energy efficient buildings require less electricity and thus less consumption of fossil fuels, which emit GHGs. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The current 2019 Building Energy Efficiency Standards, commonly referred to as the "Title 24" standards, include changes from the previous standards that were adopted, to do the following:

- Provide California with an adequate, reasonably priced, and environmentally sound supply of energy.
- Respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its GHG emissions to 1990 levels by 2020.
- Pursue California energy policy that energy efficiency is the resource of first choice for meeting California's energy needs.
- Act on the California Energy Commission's Integrated Energy Policy Report, which finds that standards are the most cost-effective means to achieve energy efficiency, states an expectation that the Building Energy Efficiency Standards will continue to be upgraded over time to reduce electricity and peak demand, and recognizes the role of the Building Energy

Efficiency Standards in reducing energy related to meeting California's water needs and in reducing GHG emissions.

- Meet the West Coast Governors' Global Warming Initiative commitment to include aggressive energy efficiency measures into updates of State building codes.
- Meet Executive Order S-20-04, the Green Building Initiative, to improve the energy efficiency of non-residential buildings through aggressive standards.

The most recent Title 24 standards are the 2019 Title 24 standards. The 2019 Building Energy Efficiency Standards improve upon the 2016 Energy Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. Buildings permitted on or after January 1, 2020, must comply with the 2019 Standards. The California Energy Commission updates the standards every three years.

Single-family homes built with the 2019 standards will use about 7 percent less energy due to energy efficiency measures versus those built under the 2016 standards. Once rooftop solar electricity generation is factored in, homes built under the 2019 standards will use about 53 percent less energy than those under the 2016 standards. This will reduce greenhouse gas emissions by 700,000 metric tons over three years, equivalent to taking 115,000 fossil fuel cars off the road. Nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades.

California Green Building Standards Code

The purpose of the California Green Building Standards Code (California Code of Regulations Title 24, Part 11) is to improve public health and safety and to promote the general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or 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 quality. The California Green Building Standards, which became effective on January 1, 2011, instituted mandatory minimum environmental performance standards for all ground-up new construction of commercial, low-rise residential uses, and State-owned buildings, as well as schools and hospitals. The mandatory standards require the following:

- 20 percent mandatory reduction in indoor water use relative to baseline levels;
- 50 percent construction/demolition waste must be diverted from landfills;
- Mandatory inspections of energy systems to ensure optimal working efficiency; and
- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particle boards.

The voluntary standards require the following:

- **Tier I:** 15 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 65 percent reduction in construction waste, 10 percent recycled content, 20 percent permeable paving, 20 percent cement reduction, and cool/solar reflective roof.
- **Tier II:** 30 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 75 percent reduction in construction waste, 15 percent recycled content, 30 percent permeable paving, 30 percent cement reduction, and cool/solar reflective roof.

LOCAL

Bay Area Air Quality Management District (BAAQMD)

The BAAQMD attains and maintains air quality conditions in the SFBAAB through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of the BAAQMD includes the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, and issuance of permits for stationary sources of air pollution. The BAAQMD also inspects stationary sources of air pollution and responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by the FCAA, FCAAA, and the CCAA. For State air quality purposes, the Bay Area is classified as a serious nonattainment area of the 1-hour ozone standard. The “serious” classification triggers various plan submittal requirements and transportation performance standards. One such requirement is that the Bay Area update the Clean Air Plan every three years to reflect progress in meeting the air quality standards and to incorporate new information regarding the feasibility of control measures and new emission inventory data.

The *2017 Clean Air Plan: Spare the Air, Cool the Climate* (2017 Clean Air Plan) was adopted on April 19, 2019 by BAAQMD in cooperation with the Metropolitan Transportation Commission, the San Francisco Bay Conservation and Development Commission, and the Associate of Bay Area Governments (ABAG). The 2017 Clean Air Plan describes a multi-pollutant strategy to simultaneously reduce emissions and ambient concentrations of ozone, fine particulate matter, toxic air contaminants, as well as greenhouse gases that contribute to climate change. The 2017 Clean Plan provides a regional strategy to protect public health and protect the climate. To protect public health, the 2017 Clean Plan describes how BAAQMD 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 2017 Clean Air 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.

The 2017 Clean Air Plan includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants; to reduce emissions of methane and other “super-GHGs” that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

BAAQMD CEQA Guidelines

The BAAQMD CEQA Air Quality Guidelines¹ were prepared to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process consistent with CEQA requirements including thresholds of significance, mitigation measures, and background air quality information. They also include assessment methodologies for air toxics, odors, and greenhouse gas emissions. In June 2010, the BAAQMD’s Board of Directors adopted CEQA thresholds of significance and an update of their CEQA Guidelines. In May 2011, the updated BAAQMD CEQA Air Quality Guidelines were amended to include a risk and hazards threshold for new receptors and modify procedures for assessing impacts related to risk and hazard impacts.

The thresholds were challenged in court. Following litigation in the trial court, the court of appeal, and the California Supreme Court, all of the thresholds were upheld. However, in an opinion issued on December 17, 2015, the California Supreme Court held that CEQA does not generally require an analysis of the impacts of locating development in areas subject to environmental hazards unless the project would exacerbate existing environmental hazards. The Supreme Court also found that CEQA requires the analysis of exposing people to environmental hazards in specific circumstances, including the location of development near airports, schools near sources of toxic contamination, and certain exemptions for infill and workforce housing. The Supreme Court also held that public agencies remain free to conduct this analysis regardless of whether it is required by CEQA.

In view of the Supreme Court’s opinion, local agencies may rely on thresholds designed to reflect the impact of locating development near areas of toxic air contamination where such an analysis is required by CEQA or where the agency has determined that such an analysis would assist in making a decision about the project. However, the thresholds are not mandatory and agencies should apply them only after determining that they reflect an appropriate measure of a project’s impacts.

The Guidelines for implementation of the thresholds are for information purposes only to assist local agencies. Recommendations in the Guidelines are advisory and should be followed by local governments at their own discretion. These Guidelines may inform environmental review for development projects in the Bay Area, but do not commit local governments or the Air District to any specific course of regulatory action.

¹ Bay Area Air Quality Management District, 2017. *California Environmental Quality Act Air Quality Guidelines*. May.

The Air District published a new version of the Guidelines dated May 2017, which includes revisions made to address the Supreme Court’s opinion.

Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans

The BAAQMD prepared their Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans (Report) in April 2022. The Report presents the BAAQMD’s recommended thresholds of significance for use in determining whether a proposed project will have a significant impact on climate change. The Air District recommends that these thresholds of significance be used by public agencies to comply with CEQA.

The BAAQMD recommends that cities and counties evaluate such plans based on whether they will be consistent with California’s long-term climate goal of achieving carbon neutrality by 2045. To be consistent with this goal, these plans should reduce GHG emissions in the relevant jurisdiction to meet an interim milestone of 40 percent below the 1990 emission levels by 2030, consistent with Senate Bill (SB) 32, and to support the State’s goal of carbon neutrality by 2045. Cities and counties planning to develop in a manner that is not consistent with meeting these GHG reduction targets will have a significant climate impact because they will hinder California’s efforts to address climate change. Specifically, in order to demonstrate a less-than-significant impact to climate change under CEQA, the BAAQMD states that General Plans and related planning documents must demonstrate that the plan either: a) meets the State’s goal to reduce emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045; or b) is consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Association of Bay Area Governments and Metropolitan Transportation Commission Bay Area Plan

Plan Bay Area 2050 was jointly adopted by the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) in October 2021 and is the region’s Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS). The Bay Area Plan is a long-range regional plan for the nine-county San Francisco Bay Area, encompassing housing, economic, transportation, and environmental strategies designed to make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges.

The Bay Area Plan is composed of 35 integrated strategies across the four elements that provide a blueprint for how the Bay Area can accommodate future growth and make the region more equitable and resilient in the face of unexpected challenges and achieve regional GHG emissions reduction targets established by CARB, pursuant to SB 375.

In summary, the Bay Area Plan:

- Details housing and economic strategies (“land use”) to invest \$702 billion in expected revenues to accommodate 2.7 million new persons, 1.4 million new households, 1.5 million new forecasted housing units, and 1.4 million new jobs between 2015 and 2050;

- Details transportation strategies to invest \$579 billion in expected revenues from federal, State, regional, and local sources over the next 30 years;
- Details environmental strategies to invest \$102 billion in expected revenues to protect the region from at least two feet of future permanent sea level rise inundation, reduce climate emissions, and maintain and expand the region’s parks and open space system; and
- Complies with Senate Bill (SB) 375, the State’s SCS law, which requires integration of land use and transportation planning to reduce per-capita passenger vehicle GHG emissions by 2035 and provide adequate housing for the region’s forecast of 2.7 million new persons and 1.4 million new households.

City of Martinez Climate Action Plan

The City of Martinez adopted a Climate Action Plan (CAP) in June, 2009. The CAP presents goals, principles, and strategies for reducing the City’s GHG emissions. A 2005 emissions inventory for community-wide GHG emissions equaled approximately 321,000 metric tons (MT) of CO₂e, with emissions from transportation constituting the single largest source in the City at about 49 percent. To achieve the City’s goals, the CAP developed objectives and strategies in transportation, energy, solid waste and recycling, water conservation, and adaptation and carbon sequestration. However, the CAP does not analyze the project’s GHG emissions levels beyond year 2020.

4.7.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Greenhouse Gas Emissions/Climate Change

Consistent with Appendix G of the CEQA Guidelines, the proposed project would result in a significant impact related to greenhouse gases and climate change if it would:

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

Analysis Approach

The BAAQMD prepared their *Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans* (Report) in April 2022. The Report presents the BAAQMD’s recommended thresholds of significance for use in determining whether a proposed project will have a significant impact on climate change. The Air District recommends that these thresholds of significance be used by public agencies to comply with CEQA.

The BAAQMD recommends that cities and counties evaluate such plans based on whether they will be consistent with California’s long-term climate goal of achieving carbon neutrality by 2045. To be

consistent with this goal, these plans should reduce GHG emissions in the relevant jurisdiction to meet an interim milestone of 40 percent below the 1990 emission levels by 2030, consistent with Senate Bill (SB) 32, and to support the State's goal of carbon neutrality by 2045. Cities and counties planning to develop in a manner that is not consistent with meeting these GHG reduction targets will have a significant climate impact because they will hinder California's efforts to address climate change

Specifically, in order to demonstrate a less-than-significant impact to climate change under the CEQA, the BAAQMD states that General Plans and related planning documents must demonstrate that the plan either: a) meets the State's goal to reduce emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045; and/or b) is consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Energy Conservation

The proposed project would result in a significant impact on energy use if it would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

IMPACTS AND MITIGATION

Impact 4.7-1: Project implementation could generate greenhouse gas emissions that could have a significant impact on the environment and could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases (Significant and Unavoidable)

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. A project's GHG emissions are at a micro-scale relative to global emissions, but could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. Future development associated with implementation of the proposed General Plan Update would contribute to increases of GHG emissions that are associated with global climate change. Estimated GHG emissions attributable to future development would be primarily associated with increases of CO₂ and other GHG pollutants, such as methane (CH₄) and nitrous oxide (N₂O), from mobile sources and utility usage.

Development that occurs because of implementation of the proposed General Plan Update would include activities that emit greenhouse gas emissions over the short- and long-term.

Short-Term Emissions

Short-term GHG emissions would occur because of construction equipment used for the following: demolition, grading, paving, and building construction activities associated with future development and infrastructure projects that will be undertaken in Martinez over the buildout timeframe of the General Plan Update. GHG emissions would also result from worker and vendor trips to and from project sites and from demolition and soil hauling trips. Construction activities are short-term and cease to emit greenhouse gases upon completion, unlike operational emissions that are continuous year after year until operation of the use ceases.

Adoption of the proposed General Plan Update does not directly approve or otherwise entitle any new development projects or infrastructure improvement projects in Martinez. As such, the construction-related GHG emissions of future projects cannot be known or quantified at this time, as it would be highly speculative. Typically, construction-related GHG emissions contribute unsubstantially (less than one percent) to a project's annual greenhouse gas emissions inventory and mitigation for construction-related emissions is not effective in reducing a project's overall contribution to climate change, given how small of a piece of the total emissions construction emissions are. Short-term climate change impacts due to future construction-related activities would be subject to State requirements for GHG emissions and would be assessed on project-by-project basis.

The General Plan Update includes policies and implementing measures that address short-term GHG emissions. For example, Noise & Air Quality Element Implementation Measure NA-I-6.1b requires construction projects to reduce construction emissions by implementing construction best practices; and Open Space & Conservation Element Policy OSC-P-6.1 requires projects to reduce energy, water, and resource consumption wherever possible as they pertain to buildings and construction.

Long-Term Emissions

Future development projects will result in continuous GHG emissions from mobile, area, and operational sources. Mobile sources, including vehicle trips to and from development projects, will result primarily in emissions of CO₂, with minor emissions of CH₄ and N₂O. The most significant GHG emission from natural gas usage will be methane. Electricity usage by future development and indirect usage of electricity for water and wastewater conveyance will result primarily in emissions of carbon dioxide. Disposal of solid waste will result in emissions of methane from the decomposition of waste at landfills coupled with CO₂ emission from the handling and transport of solid waste. These sources combine to define the long-term greenhouse gas inventory for typical development projects.

With implementation of the proposed General Plan Update, the City of Martinez Study Area is estimated to grow to a total population of 49,252 and employment of 25,121, as shown in Table 4.7-

2. This is an approximately 13.4 increase and 11.5% increase, respectively, compared to existing conditions. However, the land use modifications proposed as part of the General Plan Update would result in an approximate 8.3% reduction in VMT per capita and an approximate 5.5% increase in VMT per employee when compared to existing conditions. Overall, buildout of the proposed General Plan Update would result in an approximate 3.5% reduction in VMT per service population when compared to existing conditions. The “per service population” metric, which accounts for both population and employment, is a common way to analyze the GHG efficiency of new development in comparison to an existing baseline.

TABLE 4.7-2: VMT SUMMARY FOR THE PROPOSED GENERAL PLAN

Year/Scenario	Total Population	Total Employment	Home-Based VMT	Commute VMT	VMT/ Capita	VMT/ Employee	VMT/ Service Population
Existing (2020)	43,418	22,520	702,986	389,783	16.2	17.3	16.6
Buildout Year (2040) Proposed General Plan	49,252	25,121	731,160	458,540	14.8	18.3	16.0

SOURCE: KITTELSON & ASSOCIATES, INC., 2022.

NOTE: TOTALS MAY NOT ADD UP DUE TO ROUNDING.

WHILE THE HORIZON BUILDOUT YEAR FOR THE GENERAL PLAN UPDATE IS 2035, THE YEAR 2040 IS USED FOR ANALYSIS TO BE CONSISTENT WITH AVAILABLE TRAFFIC MODELING DATA.

According to CARB’s 2017 Climate Change Scoping Plan, the transportation sector remains the largest source of GHG emissions in the State, accounting for 37% of the inventory (CARB, 2017). A typical passenger vehicle emits approximately 4.6 metric tons of CO₂ per year (U.S. EPA, 2018). This number can vary based on a vehicle’s fuel, fuel economy, and the number of miles driven per year. The 3.5% reduction in VMT per service population (under buildout for the proposed General Plan Update compared with existing conditions) would have a substantial reduction in per service population greenhouse gas emissions.

In order to reduce community-wide GHG emissions, Martinez adopted a CAP in 2009. However, the CAP did not look beyond the target year 2020, and therefore does not represent a current local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b). The proposed General Plan Update includes Noise & Air Quality Element Implementation Measure NA-I-9.1a, which requires the City to review and adjust City policies to be consistent with the Climate Action Plan; Implementation Measure NA-I-9.1b, which requires the City to update the CAP to quantify base year GHG emissions; establish GHG reduction targets; adopt policies and programs to achieve GHG reduction targets; and establish an implementation and monitoring program. Implementation Measure NA-I-9.1d, which requires the City to review State goals for GHG reductions and provide a report to the City Council every five years or as deemed necessary; and Implementing Measure NA-I-9.1f, which requires the City to require new development projects to comply with the greenhouse gas reduction strategies and programs of the City’s CAP.

Additionally, in order to reduce community-wide GHG emissions, the proposed General Plan Update emphasizes pedestrian-oriented neighborhoods, appropriately-scaled commercial areas with strong

pedestrian and bicycle connections, and infill development within the Downtown with a commitment to develop more housing along with amenities and services to meet the day-to-day needs of residents in a pedestrian-friendly environment served by transit. The Land Use Plan and policies and implementation measures emphasize alternative transportation access and multi-modal connectivity throughout the Study Area and into the surrounding areas. The General Plan Update's proposed land use plan and policy framework has been prepared with the intent of reducing GHG emissions associated with future development and improvement projects. Future development would support placement of land uses in proximity to each other and to transit; reducing vehicle trips.

The proposed General Plan Update also includes a variety of goals, policies, and implementation measures that would reduce GHG emissions over the long term. For example, General Plan Land Use Element Goal LU-G-1 requires the City to promote a balanced land use pattern; Policy LU-P-1.3 requires the City to encourage the use of energy-efficient features in new development; Open Space & Conservation Element Goal OSC-G-6 requires reductions in energy, water, and resource consumption; Policy OSC-P-6.2, which requires the City to promote and encourage compliance with sustainable building standards; Circulation Element Goal C-G-1, which encourages safe and convenient access to activities in the community and provide a well-designed local roadway system as well as pedestrian pathways and bicycle lanes; and Goal C-G-7, which requires the City to maintain and update street standards for design, construction and maintenance of "Complete Streets", to name a few. The full list of General Plan Update goals, policies, and implementing measures that minimize potential GHG impacts is provided below. Subsequent development projects would be required to comply with the General Plan Update and adopted Federal, State, and local regulations for the reduction of GHG emissions.

While the General Plan Update goals, policies, and implementation measures would assist the City in reducing GHG emissions, the associated reduction of GHG emissions are not quantifiable and the City cannot state with certainty whether implementation of the General Plan Update along would be sufficient to limit GHGs to the extent to achieve California's long-term climate goal of achieving carbon neutrality by 2045. Therefore, implementation of the General Plan Update is considered to have the potential to generate GHG emissions that could have a significant impact on the environment and/or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing greenhouse gas emissions. This impact is considered **significant and unavoidable**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Land Use Element

Goals

- LU-G-1 Promote a balanced land use pattern, a mix of which enhances community character and serves the needs of existing and future residents. Encourage land use development to occur in an orderly fashion and in pace with the expansion of public facilities. Provide

appropriate transitions between single family neighborhoods and higher intensity uses. Preserve open space and historic structures.

Policies

- LU-P-1.3 Encourage the use of energy-efficient features in new development.
- LU-P-2.1 Support land use patterns and mixed-use infill development in the City's Downtown Priority Development Area (PDA) that will attract and serve riders of public transit.
- LU-P-2.2 Support the transformation of Downtown Martinez into a pedestrian-oriented commercial and mixed-use district with a mix of office, retail, government, high and mid-density residential, cultural, and entertainment land uses, designed to create an active lively streetscape and a sense of place.
- LU-P-2.3 Consider new infill and development projects within the Downtown that are consistent with the City's Land Use Map and compatible with surrounding uses.
- LU-P-6.1 Consider environmental justice issues related to potential adverse health impacts associated with land use decisions, including exposure to hazardous materials, industrial activity, vehicle exhaust, and other sources of pollution, on residents regardless of age, culture, gender, race, socioeconomic status, or geographic location.

Implementation Measures

- LU-I-1.3a Require compliance with the State of California Green Building Standards Code – Part 11, Title 24, California Code of Regulations (known as CALGreen). In 2007, the California Building Standards Commission developed green building standards to meet the goals of California's landmark initiative AB 32, which established a comprehensive program of cost-effective reductions of greenhouse gases (GHG) to 1990 levels by 2020.
- LU-P-2.1a Continue implementation of the Downtown Martinez Specific Plan to guide new mixed-use infill development.
- LU-P-2.2a Pursue implementation of the transportation improvement policies in the Downtown Community Based Transportation Plan.
- LU-I-6.1a Review all development proposals, planning projects, and infrastructure projects to ensure that potential adverse impacts to disadvantaged communities, such as exposure to pollutants, including toxic air contaminants, and unacceptable levels of noise and vibration are reduced to the extent feasible and that measures to improve quality of life, such as connections to bicycle and pedestrian paths, community services, schools, and recreation facilities, access to healthy foods, and improvement of air quality are included in the project. The review shall address both the construction and operation phases of the project.

Open Space & Conservation Element***Goals***

- OSC-G-6 Reduce energy, water, and resource consumption.
- OSC-G-7 Reduce energy use to limit air pollution and likelihood of power outages.

Policies

- OSC-P-6.1 Reduce energy, water, and resource consumption wherever possible as they pertain to buildings and construction.
- OSC-P-6.2 Promote and encourage compliance with sustainable building standards.
- OSC-P-6.3 Strongly encourage landscaping that promotes more efficient use of water and energy including an evaluation of xeriscaping (no/low water use landscaping plants), native plants in landscaping, drip irrigation, and irrigation controls.
- OSC-P-6.4 Encourage existing buildings and new construction to incorporate renewable energy and energy- and water-efficient technologies.
- OSC-P-6.5 Cooperate with PG&E, Contra Costa County, State of California and all relevant public and private organizations efforts to retrofit existing homes with energy saving devices.
- OSC-P-6.6 Support the use of solar power by streamlining the permitting process.
- OSC-P-6.7 Encourage use of recycled-content construction materials.
- OSC-P-6.8 Encourage rehabilitation and reuse of buildings whenever appropriate and feasible as an alternative to new construction.
- OSC-P-6.9 Continue supporting recycling and composting programs.
- OSC-P-6.10 Continue to support the use of electric and other alternative fuel-sourced vehicles.
- OSC-P-6.11 Promote land use patterns which minimize energy consumption.
- OSC-P-7.1 Continue to support the efforts of MCE and Pacific Gas and Electric in identifying projected energy demands for residential, commercial, industrial, and other land uses and promote alternative energy such as the use of solar.
- OSC-P-7.2 Support incentive programs that promote reduction of energy use.

Implementation Measures

- OSC-I-6.1a Identify opportunities for creating energy conservation and efficiency programs for application in all City facilities, schools, and local businesses.

- OSC-I-6.1b Institute a water conservation program for all City facilities to include such features as installation of waterless urinals and low flow toilets.
- OSC-I-6.1e Continue to support the building material recycling program through education of the public, contractors, and developers.
- OSC-I-6.1f Continue to support programs that reduce waste, improve recycling rates, divert organic waste from the landfill, and recover edible food as set forth in the Climate Action Plan.
- OSC-I-7.1a Consider adoption of an ordinance implementing “green” building practices that include the use of solar power.
- OSC-I-7.1b Adopt an ordinance that limits or prohibits the introduction of new wood burning stoves in new or remodeled residential buildings.

Circulation Element

Goals

- C-G-1 Encourage safe and convenient access to activities in the community and provide a well-designed local roadway system as well as pedestrian pathways and bicycle lanes.
- C-G-7 Maintain and update street standards for design, construction and maintenance of “Complete Streets.” When constructing or modifying transportation facilities, strive to provide for a balanced system for the movement of vehicles, commercial trucks, alternative and low emissions vehicles, transit and its users, bicyclists, pedestrians, children, persons with disabilities, and seniors appropriate for the road classification and adjacent land use.
- C-G-8 Promote safe and convenient pedestrian and bicycle circulation.
- C-G-9 Provide complete streets integrating a comprehensive transportation network with infrastructure and design that allows safe and convenient travel along and across streets for all users, including pedestrians, bicyclists, persons with disabilities, motorists, movers of commercial goods, users and operators of public transportation, seniors, children, youth and families.
- C-G-10 Promote a well-integrated and coordinated transit network.
- C-G-14 Continue to seek economical and dependable ways to serve the community and improve energy efficiency and reduce energy demand wherever possible.

Policies

- C-P-1.1 Provide safe and well-connected neighborhood streets that balance automotive circulation with neighborhood design and bicycle and pedestrian user safety.

- C-P-1.4 Provide a comprehensive citywide system of bicycle lanes and recreational trails that improve accessibility without the use of an automobile.
- C-P-5.1 Plan and prioritize Downtown area improvements that reduce congestion and promote non-motorized travel between nearby complementary uses.
- C-P-5.4 Consider reduced street widths, increases in width of bicycle lanes and sidewalks, as well as reduction in vehicular speed to create a greater sense of community and place.
- C-P-7.1 Plan for safe, complete, and well-connected neighborhood streets. Modify the existing street network where possible to enable direct physical connections within and between residential areas, shopping destinations, employment centers, and neighborhood parks/open spaces including, where appropriate, connections accessible only by pedestrians and bicycles to and/or from existing cul-de-sacs. Evaluate projects to ensure that the safety, comfort, and convenience of pedestrians, bicyclists, and transit users are given equal level of consideration to motor vehicle operators.
- C-P-7.2 Design and implement “Complete Streets” that enable safe, comfortable and attractive access for all users – pedestrians, motorists, bicyclists, and transit riders of all ages and abilities – in a manner that is compatible with and complementary to adjacent development and promotes connectivity between complementary land uses. New development projects must contribute to or construct transit facilities where the project would induce or increase demand on nearby arterial and collector streets, as determined through a Transportation Impact Analysis funded and completed by the project applicant.
- C-P-8.1 Promote walking and bicycling for transportation, recreation, and improvement of public and environmental health.
- C-P-8.2 Recognize and meet the mobility needs of pedestrians and bicyclists of all skill levels and ages, persons using wheelchairs, and those with other mobility limitations.
- C-P-8.3 Develop off-street pedestrian linkages, including connections that allow pedestrians to travel through the ends of cul-de-sacs, pedestrian paths, bridges over creeks and roadways, and pedestrian circulation improvements throughout the City.
- C-P-8.4 Provide safe and direct pedestrian routes and bicycle facilities between destinations to enhance the non-motorized circulation network and interface with regional systems.
- C-P-9.1 Review street construction, development projects and utility projects to identify opportunities to implement complete streets.
- C-P-9.2 Create a complete street network that provides facilities for users to travel throughout Martinez.
- C-P-10.1 Promote the use of public transportation for daily trips, including to schools and workplaces, as well as other purposes.

- C-P-10.2 Continue to cooperate with other partner agencies and jurisdictions to promote local and Martinez connections to regional public transit, including CCCTA and MTC.
- C-P-10.4 Coordinate with public transit agencies to facilitate safe, efficient and convenient pedestrian and bicycle access to transit stops, and work with agencies to relocate stops if necessary.
- C-P-10.5 Encourage transit use by working with regional transportation providers to install bus stops, shelters, benches, turnouts, park and ride lots, transfers, and other necessary facilities on arterial and collector streets.
- C-P-14.1 Continue to educate the community on energy conservation and promote alternative solutions wherever possible.
- C-P-14.2 Support the installation of solar panels on new development and investigate and encourage solar energy on public buildings and new developments.
- C-P-14.3 Continue to support electric vehicle charging stations throughout the City to promote the use of energy-efficient vehicles.
- C-P-14.4 Support energy efficiency in City operations where practical and feasible.

Implementation Measures

- C-I-5.1a Require new development to construct projects that maximize opportunities for alternative transportation modes such as bicycle and pedestrian paths as well as public transit opportunities to create easy access to and from Downtown.
- C-I-5.1b Adopt a formalized procedure for evaluating and analyzing roadways for speed and safety in order to consider the needs of all modes of transportation and adjacent land uses.
- C-I-5.1e Improve the existing street network to minimize travel times and improve mobility for transit, bicycle, and walking trips between new projects and surrounding land uses in an effort to reduce vehicle trips.
- C-I-7.1a Implement land use policies designed to create a development pattern that facilitates shopping, working, socializing, and recreation within walkable distances.
- C-I-7.1b Encourage the development of a network of continuous walkways within new commercial, public, and industrial uses to improve employees' ability to walk safely around, to, and from their workplaces.
- C-I-8.1b Ensure that landscaping plans consider street trees to provide shade and comfort for pedestrians and bicyclists.

- C-I-8.1c Install clearly marked crosswalks at intersections near all commercial uses, as well as clearly marked pedestrian paths within parking areas. Mid-block crossings are discouraged. However, if conditions warrant and are approved by the City Engineer, crosswalks and signage indicating pedestrian activity may be installed at mid-block entrances where existing commercial uses are adjacent to other high-intensity uses, such as parks and schools.
- C-I-8.1d Encourage further expansion of the existing network of continuous walkways, and encourage the development of new continuous walkways, between schools and residential areas.
- C-I-8.1e Facilities for bicycle travel (Class I bike/multiuse paths, Class II bike lanes, Class III bike routes, and Class IV bikeways) shall be provided to complete a continuous system, consistent with the Countywide Bicycle & Pedestrian Plan presented in Figure 6-3. Deviations from the routing shown on the Bicycle & Pedestrian Master Plan may be permitted with approval of the City Engineer.
- C-I-8.1i Establish a program to encourage bicycle use among City employees. Consider incentives that encourage private employers to facilitate and promote bicycle use by employees.
- C-I-8.1j Provide safe bicycle access to and from parking facilities at all community parks.
- C-I-8.1k Continue to designate a portion of the City's street construction and improvement fund for financing bikeway design and construction.
- C-I-8.1l Ensure that City facilities within the Countywide Bicycle and Pedestrian Plan maintain consistency with the requirements of the Streets and Highway Code in order to be eligible for further funding for improvements from the State or Federal sources, such as the Bicycle Transportation Account funds.
- C-I-8.1m Include funding for City facilities within the Countywide Bicycle & Pedestrian Plan updates and bikeway improvements to assist with funding Martinez projects listed in the plan and the City's Transportation Impact Fee program, recognizing the multi-modal travel needs of the City.
- C-I-9.1a Ensure development projects construct adjacent or nearby portions of trails, bicycle and or pedestrian paths set forth in the improvements table and map, to complete the network of transportation routes.
- C-I-9.1b Ensure staff review of development applications integrate multimodal infrastructure in street design, as conditions of approval.
- C-I-9.1c Prioritize the allocation of limited funds among potential complete street improvement projects taking into account safety, sidewalk and bicycle access, and access to trails.

- C-I-9.1d Recognize the multi-modal travel needs of the City by allocating revenue from the City's Transportation Impact Fee for bikeway and pedestrian facilities. These facilities should be consistent with the Countywide Bicycle & Pedestrian Plan until the City adopts its own master plan. Explore whether the impact fees can be automatically increased with the annual cost of living adjustment.
- C-I-10.1a Work with CCCTA to continue to support and expand transit routes that serve regional destinations within the City like the Downtown area, medical centers, and the Amtrak station.
- C-I-10.1b Work with CCCTA to continue to support and expand transit loops to serve local and regional medical centers, schools, and shopping, employment and recreation destinations.
- C-I-10.1c Work with CCTA and MTC to continue to pursue federal and state funds to subsidize capital and operating costs associated with local transit operations.
- C-I-10.1d Encourage ridership on public transit systems through marketing and promotional efforts. Provide information to residents and employees on transit services available for local and regional trips.
- C-I-10.1e Coordinate with partner agencies to implement regional transit solutions as part of the MTC SB 375 Sustainable Communities Strategy, and the City's Climate Action Plan.
- C-I-10.1f Support existing regional transit services, and promote Martinez commuter use of transit to lower greenhouse gas production from long distance single occupant vehicle commuting. Continue to support the County Connection bus service provided by CCCTA.
- C-I-10.1g Support efforts to improve the coordination and efficiency of bus service on a regional level and, if appropriate, the regionalization of transit service delivery.
- C-I-14.3a Where practical, utilize bicycles or low-emission vehicles for park maintenance and operations.
- C-I-14.4a When possible, replace existing equipment with more efficient heating, cooling, computer and lighting systems within City facilities.

Noise & Air Quality Element

Goals

- NA-G-5 Improve air quality over current conditions and meet or exceed state and regional standards.
- NA-G-6 Reduce levels of air contaminants.
- NA-G-9 Reduce greenhouse gas emissions to exceed or meet requirements of AB 32 and SB 375.

Policies

- NA-P-5.1 Continue to support and coordinate air quality planning efforts with other local, regional and state agencies to improve regional air quality.
- NA-P-5.2 Cooperate with regional efforts to expand public and mass transit services.
- NA-P-6.1 Reduce local contributions to the air contaminant levels in the air basin and particulate emissions to achieve levels below BAAQMD levels, in particular the levels of ozone and particulate matter.
- NA-P-9.1 Continue to maintain and improve a Climate Action Plan that will outline strategies to achieve the City's goal to reduce greenhouse gas emissions.

Implementation Measures

- NA-I-6.1a Require construction projects to implement the following dust control measures:
- a) Water all active construction areas at least twice daily and more often during windy periods. Active areas adjacent to residences should be kept damp at all times.
 - b) Cover all hauling trucks or maintain at least two feet of freeboard.
 - c) Pave, apply water at least twice daily, or apply non-toxic stabilizers on all unpaved access roads, parking areas, and staging areas.
 - d) Sweep daily with water sweepers all paved access roads, parking areas, and staging areas and sweep streets daily with water sweepers if visible soil material is deposited onto the adjacent roads.
 - e) Hydroseed or apply non-toxic soil stabilizers to inactive construction areas (i.e., previously graded areas that are inactive for 10 days or more).
 - f) Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles.
 - g) Limit traffic speeds on any unpaved roads to 15 mph.
 - h) Replant vegetation in disturbed areas as quickly as possible.
 - i) Suspend construction activities that cause visible dust plumes to extend beyond the construction site.
 - j) Post a publicly visible sign with contact information for dust complaints.
- NA-I-6.1b Require construction projects to reduce diesel particulate matter, PM_{2.5}, and other construction emissions by implementing the following measures:
- a) Provide a plan for approval by the City or the Bay Area Air Quality Management District (BAAQMD) demonstrating that heavy-duty (>50 horsepower) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NOX reduction and 45 percent particulate reduction compared to the most recent CARB fleet average for the year 2011.
 - b) Post signs indicating that diesel equipment and trucks standing idle for more than five minutes are to be turned off. This includes trucks waiting to deliver or receive

soil, aggregate, or other bulk materials. Rotating drum concrete trucks may keep their engines running as long as they are onsite or adjacent to the construction site. Install temporary electrical service whenever possible to avoid the need for independently powered equipment.

c) Properly tune and maintain equipment for low emissions.

NA-I-6.1c Require a construction health risk assessment either through screening or refine modeling, for large-scale construction projects that may result in significant diesel particulate matter. The construction health risk assessment must identify impacts and, if necessary, include measures to reduce exposure. Reduction in health risk can be accomplished through, though is not limited to, the following measures:

- a) Construction equipment selection;
- b) Use of alternative fuels, engine retrofits, and added exhaust devices;
- c) Modification of the construction schedule;
- d) Implementation of BAAQMD Basic and/or Additional Construction Mitigation Measures for control of fugitive dust.

NA-I-6.1d Encourage the use of non-vehicular means of transportation through land use patterns and investing in pedestrian and bicycle infrastructure and, as feasible, supporting a Safe Routes to School Program.

NA-I-6.1e Minimize impacts of new development by reviewing development proposals for potential impacts pursuant to CEQA and the BAAQMD Air Quality Handbook. Apply land use and transportation planning techniques to encourage the use of non-vehicular means of transportation, and/or shared transportation where possible, with the incorporation of:

- a) Public transit stops;
- b) Pedestrian and bicycle linkage to commercial centers, employment centers, schools, and parks;
- c) Preferential parking for car pools and van pools;
- d) Traffic flow improvements; and
- e) Employer trip reduction programs.

NA-I-9.1a Review and adjust City policies to be consistent with the Climate Action Plan.

NA-I-9.1b Update the Climate Action Plan (CAP) to address the following:

- a) Quantify base year GHG emissions levels in Martinez
- b) Establish GHG reduction targets that meet the targets established by SB 32
- c) Adopt policies and programs to achieve the GHG reduction targets
- d) Establish an implementation and monitoring program to track effectiveness

NA-I-9.1c Continue to work with local agencies to reduce emissions.

- NA-I-9.1d Review state goals for greenhouse gas reductions and provide a report to City Council every five years or as deemed necessary.
- NA-I-9.1e Continue to monitor federal, state and local activities related to climate change activities.
- NA-I-9.1f To the extent practical, require new development projects to comply with the greenhouse gas reduction strategies and programs of the City's Climate Action Plan.

Public Safety Element

Goals

- PS-G-10 Minimize risks to life, property, the economy, and the environment resulting from climate change impacts, including sea level rise and extreme heat events.

Policies

- PS-P-10.1 Prepare for and respond to the expected impacts of climate change.
- PS-P-10.2 Consider climate change implications, including sea level rise, when approving new projects and planning for growth, facilities, and infrastructure improvements in areas potentially affected by climate change.

Implementation Measures

- PS-I-10.1a Incorporate the projected impacts of climate change, including sea level rise and extreme heat and storm events, in the City's Local Hazard Mitigation Plan, the next update of the Housing Element and Emergency Operations Plan, and the Marina Waterfront Plan.
- PS-I-10.1b Select, prioritize, and implement, as feasible, adaptation responses identified in the Adapting to Rising Tides: Contra Costa County Assessment and Adaptation Project to adapt to sea level rise and build resiliency.
- PS-I-10.1c Incorporate the likelihood of climate change impacts into City emergency response planning and training.
- PS-I-10.1d Coordinate with Contra Costa County Flood and Conservation District, Contra Costa County Fire Protection District, East Bay Regional Park District, and other relevant organizations to address climate change impacts and develop adaptation strategies. Address fire prevention and protection, flooding and severe storms, extreme heat events, public health, and the health and adaptability of natural systems, including water and biological resources.
- PS-I-10.1e Consider the potential for sea level rise when processing development applications that might be affected by rising sea levels, including current recommendations and best available sea level rise and inundation projections from sources such as the California

Natural Resources Agency, the California Ocean Protection Council, Adapting to Rising Tides, and the Atmospheric Administration (NOAA).

PS-I-10.1f Incorporate locations and operations responsibility for establishing cooling centers for extreme heat events as part of the next update of the City's Emergency Operations Plan.

Impact 4.7-2: Project implementation has the potential to result in a significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources, or conflict with or obstruct a state or local plan for renewable energy or energy efficiency (Less than Significant)

The State CEQA Guidelines require consideration of the potentially significant energy implications of a project. CEQA requires mitigation measures to reduce “wasteful, inefficient and unnecessary” energy usage (Public Resources Code Section 21100, subdivision [b][3]). According to Appendix G of the CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. In particular, a project would be considered “wasteful, inefficient, and unnecessary” if it were to violate State and federal energy standards and/or result in significant adverse impacts related to project energy requirements, energy inefficiencies, energy intensiveness of materials, cause significant impacts on local and regional energy supplies or generate requirements for additional capacity, fail to comply with existing energy standards, otherwise result in significant adverse impacts on energy resources, or conflict or create an inconsistency with applicable plan, policy, or regulation.

The proposed project is the updated Martinez General Plan. Buildout of the General Plan Update includes residential, commercial, office, industrial, mixed-use, open space, and other land uses (see Section 2.0, Project Description for further detail). The amount of energy used in the Study Area at buildout would directly correlate to the type and size of development, the energy consumption associated with unit appliances, outdoor lighting, and energy use associated with other buildings and activities. Other major sources of Study Area energy consumption include fuel used by vehicle trips generated during construction and operational activities, and fuel used by off-road and on-road construction vehicles during construction. The following discussion provides a breakdown of the energy uses in the Study Area upon buildout of the General Plan Update.

Electricity and Natural Gas

At buildout, the City of Martinez's electricity and natural gas consumption would be used primarily to power buildings (all types of buildings, including residential, commercial, office, industrial, public, etc.). Electricity would primarily come from the electricity utility providers, MCE and PG&E, though on-site solar generation would also generate a substantial source of energy for the community at General Plan buildout.

Fuel Consumption - On-road Vehicles (Operation)

Buildout of the General Plan Update would generate vehicle trips during its operational phase. Based on the traffic analysis prepared for the proposed General Plan Update (Kittelsohn & Associates, 2022), the Study Area at buildout is anticipated to have approximately 731,160 Home-Based VMT. Fuel consumption is anticipated to represent the largest sector of GHG emissions at General Plan buildout. Energy for on-road vehicles would derive from gasoline, diesel, as well as electricity from MCE and PG&E and from on-site solar generation.

Fuel Consumption - On-road Vehicles (Construction)

Implementation of the proposed General Plan update would also generate on-road vehicle trips during construction activities (from construction workers, vendors, and haulers). The vast majority of on-road mobile vehicle fuel used during the construction activities during buildout of the General Plan Update would occur during building construction.

Off-road Vehicles (Construction)

Off-road construction vehicles would use diesel fuel during construction activities. A non-exhaustive list of off-road constructive vehicles expected to be used during construction activities includes: cranes, forklifts, generator sets, tractors, excavators, and dozers.

Conclusion

Buildout of the General Plan Update would use energy resources for the operation of buildings (electricity and natural gas), for on-road vehicle trips (e.g. gasoline and diesel fuel), and from off-road construction activities (e.g. diesel fuel). Each of these activities would require the use of energy resources. Developers of individual projects within the Study Area would be responsible for conserving energy, to the extent feasible, and would rely heavily on reducing per capita energy consumption to achieve this goal, including through Statewide and local measures. For example, developers would be required to comply with the latest version of the Building Energy Efficiency Standards (CalGreen), in effect at the time. CalGreen requires developers to implement stringent requirements for home insulation, energy efficiency of appliances, renewable energy, electric vehicle charging, water efficiency and conservation, construction waste reduction, indoor and outdoor air quality, material conservation and resource efficiency, and efficiency of building maintenance and operation.

Buildout of the General Plan Update would be in compliance with all applicable federal, State, and local regulations regulating energy usage. For example, both MCE and PG&E are responsible for the mix of energy resources used to provide electricity for their customers, and are in the process of implementing the Statewide Renewable Portfolio Standard (RPS) to increase the proportion of renewable energy (e.g. solar and wind) within their respective energy portfolios.

PG&E is expected to achieve at least 60% renewables by 2030, and 100 percent zero-carbon electricity by 2045 (in compliance with SB 100). MCE's portfolio currently consists of at least 60%

renewables, with the option to increase to 100% renewables. Other Statewide measures, including those intended to improve the energy efficiency of the statewide passenger and heavy-duty truck vehicle fleet (e.g. the Pavley Bill and the Low Carbon Fuel Standard), would improve vehicle fuel economies, thereby conserving gasoline and diesel fuel. These energy savings would continue to accrue over time. Additionally, building new housing near new job opportunities would reduce commuting time and allow for opportunities for pedestrian transportation such as walking and biking to work, further reducing energy usage. Furthermore, project-specific sustainability features implemented by individual development projects could further reduce energy consumption associated with individual projects.

The General Plan Update includes policies and implementation actions to support energy conservation and renewable energy, as well as reducing energy use. Open Space & Conservation Element Implementation Measure OSC-I-6.1a would identify opportunities to create energy conservation and efficiency programs for application in all City facilities, schools, and local businesses. Policy OSC-P-6.4 would encourage existing buildings and new construction to incorporate renewable energy and energy-and water-efficient technologies. Policy OSC-P-6.6 would support the use of solar power by streamlining the permitting process. Policy OSC-P-7.1 would continue to support the efforts of MCE and PG&E in identifying projected energy demands for residential, commercial, industrial, and other land uses and promote alternative energy such as the use of solar. Furthermore, connections exist between the Study Area and nearby pedestrian and bicycle pathways, and public transit access exists nearby, reducing the need for local motor vehicle travel. Although improvements to the City's pedestrian, bicycle, and public transit systems would provide further opportunities for alternative transit, the Study Area would be linked closely with existing networks that, in large part, are sufficient for most residents of the Study Area and neighboring communities.

As a result, the proposed General Plan Update would not result in any significant adverse impacts related to project energy requirements, energy use inefficiencies, and/or the energy intensiveness of materials by amount and fuel type, including during construction, operations, maintenance, and/or removal. PG&E, the natural gas provider, maintains sufficient capacity to serve the Study Area. The City of Martinez would comply with all existing energy standards, and would not result in significant adverse impacts on energy resources. For the reasons stated above, buildout of the General Plan Update would not be expected cause an inefficient, wasteful, or unnecessary use of energy resources nor conflict with or obstruct a State or local plan for renewable energy or energy efficiency. This is a **less than significant** impact.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Refer to the Goals, Policies, and Implementation Measures provided under Impact 4.7-1.

4.7.4 CUMULATIVE IMPACTS

The cumulative GHG and energy impacts are analyzed based on development within the Study Area. No specific development projects are proposed or would be approved as part of the General Plan Update. Construction of the individual development projects allowed under the land use designations of the proposed General Plan Update has the potential to result in construction-related GHG and energy impacts. Further, impacts resulting from potential development of the Study Area could occur as a result of substantial grading, site preparation, and an increase in urbanized development. Additionally, increased development in the County, including the Study Area, would contribute to cumulative operational GHG and energy impacts, including from increases in mobile source emissions, energy consumption, and other contributors to GHG and energy impacts.

As future development projects are received and reviewed by the City, those projects would be reviewed for consistency with the General Plan Update and all relevant State-level programs and requirements. All future projects must implement the most current version of the Title 24 energy efficiency requirements, as required by State law. Consistency with the General Plan Update and other mandatory State-level programs would ensure that future project-level contributions to inefficient, wasteful or unnecessary energy use would be less than significant. Moreover, as identified above, buildout of the General Plan Update would not be expected cause an inefficient, wasteful, or unnecessary use of energy resources nor conflict with or obstruct a State or local plan for renewable energy or energy efficiency. As a result, the proposed General Plan Update's incremental contribution to cumulative energy impacts would be less than cumulatively considerable.

The topic of GHG emissions is inherently a cumulative impact. Though significance thresholds can be developed by air districts, as well as State and federal regulatory agencies, these thresholds and their related goals are ultimately designed to effect change at a global level. As demonstrated in the analysis provided above, the proposed Project would not be consistent with California's long-term climate goal of achieving carbon neutrality by 2045 and would therefore have a significant and unavoidable impact even with the implementation of General Plan Update goals, policies and implementation measures. As a result, the General Plan Update's incremental contribution to cumulative GHG impacts would be considered **cumulatively considerable** and **significant and unavoidable**.

4.7.5 SIGNIFICANT UNAVOIDABLE IMPACTS

Impacts to GHG emissions associated with the implementation of the General Plan Update would be **significant and unavoidable** under project and cumulative project conditions.

4.7.6 REFERENCES

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This section provides a background discussion of the hazardous materials and waste, fire hazards, and hazards from air traffic found in the City of Martinez. This section is organized with an existing setting, regulatory setting, and impact analysis.

4.8.1 ENVIRONMENTAL SETTING

HAZARDOUS MATERIALS AND WASTE

Hazards include man-made or natural materials or man-made or natural conditions that may pose a threat to human health, life, property, or the environment. Hazardous materials and waste present health hazards for humans and the environment. These health hazards can result during the manufacture, transportation, use, or disposal of such materials if not handled properly. Hazards to humans can also exist from natural or human induced wildfire and air traffic accidents.

Hazardous Materials

A hazardous material is a substance or combination of substances which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may either: (1) cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating irreversible illness; or (2) pose a substantial present or potential hazard to human health and safety, or the environment when improperly treated, stored, transported, or disposed of. Hazardous materials are mainly present because of industries involving chemical byproducts from manufacturing, petrochemicals, and hazardous building materials.

Hazardous Waste

Hazardous waste is the subset of hazardous materials that has been abandoned, discarded, or recycled and is not properly contained, including contaminated soil or groundwater with concentrations of chemicals, infectious agents, or toxic elements sufficiently high to increase human mortality or to destroy the ecological environment. If a hazardous material is spilled and cannot be effectively picked up and used as a product, it is considered to be hazardous waste. If a hazardous material site is unused, and it is obvious there is no realistic intent to use the material, it is also considered to be a hazardous waste. Examples of hazardous materials include flammable and combustible materials, corrosives, explosives, oxidizers, poisons, materials that react violently with water, radioactive materials, and chemicals.

Transportation of Hazardous Materials

The transportation of hazardous materials within the State of California is subject to various federal, State, and local regulations. It is illegal to transport explosives or inhalation hazards on any public highway not designated for that purpose, unless the use of the highway is required to permit delivery, or the loading of such materials (California Vehicle Code §§ 31602(b), 32104(a)). The California Highway Patrol (CHP) designates through routes to be used for the transportation of hazardous materials. Transportation of hazardous materials is restricted to these routes except in cases where additional travel is required from that route to deliver or receive hazardous materials to and from users.

HAZARDOUS SITES

Cortese List

The Cortese List is a planning document used by the State, local agencies, and land owners to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. California Department of Toxic Substances Control (DTSC) and the State Water Resources Board are responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

EnviroStor Data Management System

The DTSC maintains the Envirostor Data Management System, which provides information on hazardous waste facilities (both permitted and corrective action) as well as any available site cleanup information. This site cleanup information includes: Federal Superfund Sites (NPL), State Response Sites, Voluntary Cleanup Sites, School Cleanup Sites, Corrective Action Sites, Tiered Permit Sites, and Evaluation/Investigation Sites. The hazardous waste facilities include: Permitted–Operating, Post-Closure Permitted, and Historical Non-Operating.

There are two active site locations with a Martinez address listed in the EnviroStor database; both are located in the eastern portion of the Study Area, outside of City limits but within the City’s SOI. An active status identifies that an investigation and/or remediation is currently in progress and that DTSC is actively involved, either in a lead or support capacity. The first active site is the ACME Landfill, a waste disposal facility operated by the ACME Fill Corporation from the 1950s to 1980s, located at 950 Waterbird Way. A Land Use Restriction on the site was recorded in 1999 due to the disposal of waste, later characterized as hazardous waste, on the site. The second active site is the Maltby Pump Station located on 900 Central Avenue. The site is an active voluntary cleanup site.

There are two site locations with a Martinez address listed with a “Certified/Operation & Maintenance” status in the EnviroStor database. Certified Operations & Maintenance identifies sites that have certified cleanups in place but require ongoing Operation and Maintenance (O&M) activities, such as pumping and treating contaminated groundwater, before complete cleanup will be achieved. Prior to the Certified O&M designation, all institutional controls (e.g., land use restrictions) that are necessary to protect public health must be in place. The first Certified O&M site is the Central Contra Costa Sanitary District (CCCSD) site located at 5019 Imhoff Place. The CCCSD operates a wastewater treatment plant at the site. The following contaminants were found in the soil during a Preliminary Endangerment Assessment (PEA) Report conducted in 1992: volatile organic compounds (VOCs), petroleum hydrocarbons quantified as diesel, polynuclear aromatic hydrocarbons, and metals that may include lead, cadmium, and chromium. These contaminants are a result of receiving soil/sludge waste from a settling pond or basin located at the Shell Oil Company refinery in 1965 and 1966. The PEA Report concluded that the hazardous substances detected did not pose a significant threat to public health or the environment; however, CCCSD agreed to enter into a Voluntary Agreement with DTSC to reduce further what CCCSD believes to be the already low

risk presented by the contaminated soils. Subsequently, a total of approximately 55,000 cubic yards of clean soil was imported to the Site to construct a 12-inch minimum soil cap over the impacted area. Inspection and maintenance, as well as land use restrictions, are ongoing and the site has retained a cleanup status of Certified O&M as of July 7, 2004.

The second Certified O&M site is the Vine Hill Complex located at 896 Waterbird Way. The Site is in a highly industrial area that lies in a deltaic, anaerobic marshy environment consisting primarily of bay mud and marshy, peat environments. The following contaminants were found at the site: VOCs, metals, and other potential contaminants. These contaminants are a result of the site's historical use as a landfill. The Site received closure certification on June 23, 1999 and transitioned to post closure status on June 11, 2003. Post closure operations at the Vine Hill property include: Corrective Action Management Unit (CAMU) Area A (closed and capped landfill), CAMU Area B (surface impoundments), and a leachate and groundwater management system that includes a Groundwater Treatment System. The site has retained a cleanup status of Certified O&M as of December 5, 2016.

In addition, there is one site location with a Martinez address listed with a "certified" status in the EnviroStor database. Certified status means that it is a completed site with previously confirmed release that was subsequently certified by DTSC as having been remediated satisfactorily under DTSC oversight. The site is the location of the Maintenance Yard Property used by the Martinez Unified School District at 921 Susanna Street. Lead was found in the soil during a Preliminary Environmental Assessment from October 2014 to January 2015. Subsequently, a total of approximately 730 cubic yards of impacted soil was excavated from the site and DTSC processed Certification of the site on June 3, 2016.

There are no sites within the Study Area that are included on the "List of Hazardous Waste and Substances Sites" or "List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code" from the DTSC EnviroStor database.

GeoTracker

GeoTracker is the California Water Resource Control Board's data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense, Site Cleanup Program) as well as permitted facilities such as operating Underground Storage Tanks (USTs) and land disposal sites.

Leaking Underground Storage Tanks (LUST): There are 62 locations with a Martinez address that are listed in the GeoTracker database for Leaking Underground Storage Tanks (LUST). Sixty of the locations have undergone LUST cleanup and the State has closed the case. There are two locations in Martinez with an open case. Table 4.8-1 lists the location of open and closed cases for LUSTs in Martinez.

4.8

HAZARDS AND HAZARDOUS MATERIALS

TABLE 4.8-1: MARTINEZ LUST CLEANUP SITES

Name	Activity	Location
Closed Cases (Cleanup Completed)		
7 Eleven	Completed - Case Closed	4001 Pacheco Blvd
76 Service Station	Completed - Case Closed	6655 Alhambra Ave
Arco	Completed - Case Closed	3700 Pacheco Blvd
Bay Area Diablo Petroleum Company	Completed - Case Closed	3575 Pacheco Blvd
Beneto Tank Lines	Completed - Case Closed	990 Howe Rd
Billing's Plumbing	Completed - Case Closed	4095 Pacheco Blvd
Bishop Wholesale	Completed - Case Closed	4233 Alhambra Way
Black Mountain Spring Water	Completed - Case Closed	888 Howe Rd
Bp	Completed - Case Closed	61 Arthur Rd
Ccc Consolidated Fire Dist Station #12	Completed - Case Closed	1210 Shell Ave
Chevron Avon Terminal	Completed - Case Closed	611 Solano Way
Chevron	Completed - Case Closed	6606 Alhambra Ave
Chevron	Completed - Case Closed	1250 Morello Ave
Chevron	Completed - Case Closed	3950 Alhambra Ave
Contra Costa County Hospital	Completed - Case Closed	2500 Alhambra Ave
Contra Costa County Pool Garage	Completed - Case Closed	1215 Main St
Contra Costa County Public Works	Completed - Case Closed	Unknown Franklin Canyon Rd
Contra Costa Landscaping Inc	Completed - Case Closed	261 Arthur Rd
Crockett Electric Company	Completed - Case Closed	3440 Pacheco Blvd
Delvatti Property	Completed - Case Closed	615 Alhambra Ave
Exxon	Completed - Case Closed	4141 Alhambra Ave
Former Arco	Completed - Case Closed	906 Alhambra Avenue
Former Exxon	Completed - Case Closed	6710 Alhambra Ave
Golden Bear Equipment Company	Completed - Case Closed	3655 Alhambra Ave
Heim Brothers Econo Storage	Completed - Case Closed	375 Arthur Rd
Heinsen Construction (Former)	Completed - Case Closed	4022 Pacheco Blvd.
Housing For Independent People	Completed - Case Closed	719 Alhambra Ave
It Truck Yard	Completed - Case Closed	4501 Pacheco Blvd
Ivy High Lift	Completed - Case Closed	1000 Howe Rd
J & S Paper Company	Completed - Case Closed	885 Howe Rd
L & L Shopping Center	Completed - Case Closed	911 41 Alhambra Ave
L & L Shopping Center	Completed - Case Closed	917 Alhambra Ave
Landsea Terminals Inc	Completed - Case Closed	2801 Waterfront Rd
Lonestar Industries	Completed - Case Closed	4796 Imhoff Pl
Martinez City Hall	Completed - Case Closed	525 Henrietta St
Martinez Mini Market	Completed - Case Closed	2250 Pacheco Blvd
Martinez Municipal Marina	Completed - Case Closed	7 Court St N
Martinez Unified School District	Completed - Case Closed	921 Susana St
Mayflower Contract Services	Completed - Case Closed	3300 Pacheco Blvd
Moeller Property	Completed - Case Closed	875 Howe Rd
Mountain View Sanitary District	Completed - Case Closed	3800 Arthur Rd

TABLE 4.8-1: MARTINEZ LUST CLEANUP SITES

Name	Activity	Location
Closed Cases (Cleanup Completed)		
Mountain View Sanitary District	Completed - Case Closed	3800 Arthur Rd
Nu Way Cleaners	Completed - Case Closed	618 Las Juntas
P&M Arco	Completed - Case Closed	2201 Berrellesa Ave (Now 400 Soto St)
Pacific Bell	Completed - Case Closed	515 E St
Riley's Striping	Completed - Case Closed	3350 Pacheco Blvd
Scaife Property	Completed - Case Closed	921 Arnold Dr
Shell	Completed - Case Closed	4355 Pacheco Blvd
Shell	Completed - Case Closed	3630 Alhambra Ave
Shell	Completed - Case Closed	1175 Muir Rd
Sheriff's Communications	Completed - Case Closed	50 Glacier Blvd
Southern Pacific	Completed - Case Closed	401 Ferry St
Telfer Tank Lines	Completed - Case Closed	211 Foster St
Texaco	Completed - Case Closed	3850 Alhambra Ave
Ultramar (Beacon Ss # 3714)	Completed - Case Closed	3767 Alhambra Ave
Ultramar Beacon #3713 (Former)	Completed - Case Closed	2501 Pacheco Blvd
Unocal	Completed - Case Closed	3750 Alhambra Ave
Valley Furniture	Completed - Case Closed	735 Escobar St
Veterans Admin Medical Center	Completed - Case Closed	150 Muir Rd
Willis Trucking	Completed - Case Closed	874 Howe Rd
Open Cases		
55 Howe Road Investors, LLC	Open – Verification Monitoring	55 Howe Rd
Kaiser Medical Office - Martinez	Open - Site Assessment	200 Muir Road

SOURCE: CALIFORNIA WATER RESOURCES CONTROL BOARD GEOTRACKER DATABASE, 2022.

Permitted Underground Storage Tank (UST): There are 39 locations with a Martinez address that have Underground Storage Tanks (UST) that are permitted through the California Water Resources Control Board.

Water Board Program Cleanup Sites: There are 32 locations with a Martinez address that are listed in the GeoTracker database for Water Board Cleanup Sites. Thirteen of the locations have undergone cleanup and the State has closed the case, with two more sites eligible for closure. There are six locations in Martinez under remediation, four locations with verification monitoring, one location under site assessment, four sites listed as open but inactive, one open (long term management), and one open for assessment and interim remedial action. Table 4.8-2 lists the location of open and closed cases for Water Board Program Cleanup Sites in Martinez.

TABLE 4.8-2: MARTINEZ WATER BOARD CLEANUP SITES

Name	Location
Closed Cases (Land Use Restrictions)	
Berrellessa Apartment Complex	301 Berrellessa Street
Harris Property	1000 Howe Road
Closed Cases (Cleanup Completed)	
Texaco Trading	Mococo Rd @ Waterfront Rd
Pacheco Properties, Inc.	4595 Pacheco Boulevard
Village Oaks Cleaners	1135 Arnold Drive
Tucker Property	735 Escobar St
Landscape Care Company	4026 Pacheco Blvd
It Facility - Martinez (Former)	4501 Pacheco Blvd
Southern Pacific Property - Martinez	Marina Vista @ Ferry St
Chevron Pipeline Martinez	4585 Pacheco Blvd
Kinder Morgan Pipe Line Release	Waterfront Rd/ Railroad Tracks
Alhambra Site Bank Of Oakland	3500 Alhambra Ave
Exxon Bulls Head Point Pipeline Site	Bulls Head Point - State Lands Commission
Open – Eligible For Closure	
Transmontaigne Martinez	2801 Waterfront Road
Tosco Pipeline - Wickland	2801 Waterfront Road
Open – Remediation	
Crystal Cleaners Facility	6672 Alhambra Avenue
Tesoro / Tdpi / Cop Committee Site	150 Solano Way
Tosco Avon Refinery	1 Solano Way
Chevron, Avon Terminal Agt, Martinez	611 Solano Way
Tesoro Golden Eagle Refinery	150 Solano Way
Tesoro Avon Refinery	150 Solano Way
Open – Verification Monitoring	
Eco Services Inc.	100 Mococo Road
Monsanto Chemical Facility	1778 Monsanto Way
Acme Fill Corp	950 Waterbird Way, North Parcel
Shell Oil Co - Martinez Refinery	North End Marina Vista Blvd
Open – Site Assessment	
Chevron Historical Pipeline - Pim Site 23	Near Waterbird Way, East Of Interstate 680 And Just North Of Santa Fe Railroad
Open - Inactive Case	
Central Contra Costa Sanitary District	5019 Imhoff Place
Santa Fe Pacific Pipeline Partners	Closed Unk Pipeline Area Pacheco Creek
Amorco Terminal	200 Waterfront Road
Al Auto Detail	209 Berrellessa

TABLE 4.8-2: MARTINEZ WATER BOARD CLEANUP SITES

Name	Location
Open - Long Term Management	
Pacific Atlantic	2801 Waterfront Road
Open - Assessment & Interim Remedial Action	
Martinez Refining Company	1801 Marina Vista

SOURCE: CALIFORNIA WATER RESOURCES CONTROL BOARD GEOTRACKER DATABASE, 2022.

Solid Waste Information System (SWIS)

FACILITY/SITE LISTING

The Solid Waste Information System (SWIS) is a database of solid waste facilities that is maintained by California's Department of Resources Recycling and Recovery (CalRecycle). The SWIS data identifies active, planned, and closed sites. The City of Martinez has three active facilities and two closed facilities listed in the database. The active facilities are: the Acme Landfill and the Contra Costa TS and Recovery, both located on Waterbird Way; and EcoMulch. The Acme Landfill is a permitted Solid Waste Landfill. The Contra Costa TS and Recovery is a permitted Large Volume Transfer/Processing Facility. EcoMulch is a Chipping and Grinding Facility. The closed facilities include the Acme Composting Compost Facility and the Martinez City Rubbish facility. The site details are listed in Table 4.8-3.

TABLE 4.8-3: CALRECYCLE OPEN AND CLOSED FACILITIES/SITES

Number	Name	Location	Activity	Regulatory	Status
07-AA-0002	Acme Landfill	950 Waterbird Way	Solid Waste Landfill	Permitted	Active
07-AA-0027	Contra Costa TS and Recovery	951 Waterbird Way	Large Volume Transfer/Proc Facility	Permitted	Active
07-AA-0067	EcoMulch	4949 Pacheco Blvd.	Chipping and Grinding Facility/Operation	Notification	Active
07-AA-0035	Acme Composting Compost Facility	950 Waterbird Wy, E Parcel Acme Lf	Composting Facility (Green Waste)	Exempt	Clean Closed
07-CR-0018	Martinez City Rubbish	301 Waterfront Road	Solid Waste Disposal Site	Pre-regulations	Closed

SOURCE: CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY, 2022.

HAZARDS FROM AIR TRAFFIC

The State Division of Aeronautics has compiled extensive data regarding aircraft accidents around airports in California. This data is much more detailed and specific than data currently available from the Federal Aviation Administration (FAA) and the National Transportation Safety Board (NTSB). According to the California Airport Land Use Planning Handbook (2011), prepared by the State Division of Aeronautics, 21 percent of general aviation accidents occur during takeoff and initial

climb and 44.2 percent of general aviation accidents occur during approach and landing. The State Division of Aeronautics has plotted accidents during these phases at airports across the country and has determined certain theoretical areas of high accident probability.

Approach and Landing Accidents

As nearly half of all general aviation accidents occur in the approach and landing phases of flight, considerable work has been done to determine the approximate probability of such accidents. Nearly 77 percent of accidents during this phase of flight occur during touchdown onto the runway or during the roll-out. These accidents typically consist of hard or long landings, ground loops (where the aircraft spins out on the ground), departures from the runway surface, etc. These types of accidents are rarely fatal and often do not involve other aircraft or structures. Commonly these accidents occur due to loss of control on the part of the pilot and, to some extent, weather conditions (California Division of Aeronautics, 2011).

The remaining 23 percent of accidents during the approach and landing phase of flight occur as the aircraft is maneuvered towards the runway for landing, in a portion of the airspace around the airport commonly called the traffic pattern. Common causes of approach accidents include the pilot's misjudging of the rate of descent, poor visibility, unexpected downdrafts, or tall objects beneath the final approach course. Improper use of rudder on an aircraft during the last turn toward the runway can sometimes result in a stall (a cross-control stall) and resultant spin, causing the aircraft to strike the ground directly below the aircraft. The types of events that lead to approach accidents tend to place the accident site fairly close to the extended runway centerline. The probability of accidents increases as the flight path nears the approach end of the runway (California Division of Aeronautics, 2011).

According to aircraft accident plotting provided by the State Division of Aeronautics, most accidents that occur during the approach and landing phase of flight occur on the airport surface itself. The remainder of accidents that occur during this phase of flight are generally clustered along the extended centerline of the runway, where the aircraft is flying closest to the ground and with the lowest airspeed (California Division of Aeronautics, 2011).

Takeoff and Departure Accidents

According to data collected by the State Division of Aeronautics, nearly 65 percent of all accidents during the takeoff and departure phase of flight occur during the initial climb phase, immediately after takeoff. This data is correlated by two physical constraints of general aviation aircraft:

- The takeoff and initial climb phase are times when the aircraft engine(s) is under maximum stress and is thus more susceptible to mechanical problems than at other phases of flight; and
- Average general aviation runways are not typically long enough to allow an aircraft that experiences a loss of power shortly after takeoff to land again and stop before the end of the runway.

While the majority of approach and landing accidents occur on or near to the centerline of the runway, accidents that occur during initial climb are more dispersed in their location as pilots are not attempting to get to any one specific point (such as a runway). Additionally, aircraft vary widely in payload, engine power, glide ratio, and several other factors that affect glide distance, handling characteristics after engine loss, and general response to engine failure. This further disperses the accident pattern. However, while the pattern is more dispersed than that seen for approach and landing accidents, the departure pattern is still generally localized in the direction of departure and within proximity of the centerline. This is partially due to the fact that pilots are trained to fly straight ahead and avoid turns when experiencing a loss of power or engine failure. Turning flight causes the aircraft to sink faster and flying straight allows for more time to attempt to fix the problem. (California Division of Aeronautics, 2011).

Local Airport Facilities

There are no private or public airport facilities in the Study Area.

Buchanan Field Airport: Buchanan Field Airport, located on a 495-acre site in an unincorporated area of north central Contra Costa County, is owned and operated by the County and administered by the County Public Works Department. Buchanan Field Airport is located at 550 Sally Ride Drive, Concord, approximately 0.75 miles east of Martinez City Limits. Buchanan Field is a general aviation airport without scheduled commercial air service.

The Contra Costa County Airport Land Use Compatibility Plan (ALUCP), adopted by the Contra Costa County Airport Land Use Commission (ALUC) on December 13, 2000, establishes policies applicable to land use compatibility planning in the vicinity of airports throughout the County, including the Buchanan Field Airport. The ALUCP serves as a tool for use by the ALUC in fulfilling its duty to review airport and adjacent land use development proposals. Additionally, the plan sets compatibility criteria applicable to local agencies in their preparation or amendment of land use plans and ordinances and to land owners in their design of new development. The Buchanan Field Airport Influence Area (AIA) extends into the eastern portion of the Study Area (Shutt Moen Associates, 2000). Figure 4.8-1 shows the boundaries of the Buchanan Field Airport Safety Zones in the area. The ALUCP sets safety standards for each Safety Zone, including permitted land uses and intensity, height limits, and hazardous materials storage. Safety Zones are numbered from one to four, with Safety Zone 1 having the most restrictive standards and Safety Zone 4 having the least restrictive standards. As shown in Figure 4.8-1, Safety Zone 2 and Safety Zone 4 extend into the Study Area.

The safety standards for Safety Zone 2 include:

1. Land uses shall be limited to a maximum of 30 people per acre or 1 person per 500 square feet of gross building floor area;
 - a. Hotels, restaurants, shopping centers, theaters, and other places of public assembly typically do not comply with this criterion, but are acceptable if the usage is limited through building design, use permit, and/or other mechanisms.
2. Buildings shall have no more than two habitable floors above ground.

4.8 HAZARDS AND HAZARDOUS MATERIALS

3. Residences, children's schools (through grade 12), day care centers, hospitals, and nursing homes are specifically prohibited.
4. Aboveground bulk storage of hazardous materials is prohibited with the exception of:
 - a. On-airport storage of aviation fuel and other aviation-related flammable materials.
 - b. Up to 2,000 gallons of nonaviation flammable materials

The safety standards for Safety Zone 4 include:

1. Land use intensity is not limited other than that buildings shall have no more than four habitable floors above ground.
2. Aboveground storage of more than 2,000 gallons of fuel or other hazardous materials is prohibited in existing or planned residential or commercial areas.

Flight Paths. Martinez area residents are subject to small aircraft overflights from operations at Buchanan Field Airport. Traffic patterns vary at Buchanan Field, depending on whether aircraft are moving under Visual Flight Rules (VFR) conditions or during Instrument Flight Rules (IFR) weather. During VFR conditions, the pattern altitude above mean sea level is determined for light aircraft and for heavy aircraft. During IFR weather, flight altitude may have a lower ceiling. Approaches also differ depending on whether the aircraft are general aviation and commuter flights versus air carrier and business jets.

Height Limits. The maximum allowable structural height limits are defined in the ALUCP in accord with Part 77 of the Federal Aviation Regulations. These limits have been designed to ensure safety where buildings or other structures (such as chimneys, landscaping and antennae) would intrude into needed airspace. The eastern portion of the Martinez area is affected by height limits. Height limits especially apply along the higher elevations (above 173 feet) east of Morello Avenue. The City's height restrictions are consistent with these limitations.

Crash Zones. Safety (crash hazard) zones are designated by the ALUCP. Only a relatively small portion of the Martinez area is within these designated safety zones, specifically within the Martinez Sphere of Influence at the northern end of the Buchanan Field runways along State Route 4.

Major Regional Airport Facilities

San Francisco International Airport (SFO): The San Francisco International Airport is located approximately 28 miles southwest of Martinez. SFO is the largest airport in the region, and provides a wide range of domestic airline service and all of the region's long-haul international flights. San Francisco serves 68 percent of regional Bay Area air passengers and 43 percent of regional air cargo shipments.

Metropolitan Oakland International Airport (OAK): The Oakland International Airport is located approximately 19 miles southwest of Martinez. Oakland Airport has traditionally been the hub for low-cost carriers and a major air cargo center due to operations by FedEx and UPS. Oakland serves 17 percent of Bay Area regional air passengers and 52 percent of air cargo. The AIA includes portions of the cities of Oakland, San Leandro, Alameda, Hayward, and small unincorporated areas of Alameda County in the vicinity of the Airport, including San Lorenzo.

Hayward Executive Airport: The Hayward Executive Airport is located in Alameda County approximately 22 miles south of Martinez on the west side of the City of Hayward. The AIA includes portions of the cities of Hayward, San Leandro, and unincorporated areas of Alameda County.

Norman Y. Mineta San Jose International Airport (SJC): The San Jose International Airport is located approximately 44 miles south of Martinez, and is the only Air Carrier airport in Santa Clara County. Air Carrier aviation is defined as scheduled commercial passenger flights and includes scheduled airfreight flights. San Jose International Airport has a full range of aircraft parking/storage facilities, aircraft fueling facilities and aircraft support operations, and is classified as a Medium Hub Airport based on the number of annual passenger enplanements. Medium Hub airports (such as SJC) are those that account for between 0.25 and one percent of total U.S. enplanements. SJC serves 15 percent of the Bay Area regional air passengers and six percent of air cargo. The AIA extends north to I-237.

National Transportation Safety Board Aviation Accident Database

The National Transportation Safety Board Aviation Accident Database identifies a total of one aircraft accident in Martinez (National Transportation Safety Board, 2022). The accident occurred in 1992 (helicopter) and resulted in two fatalities.

OTHER POTENTIAL HAZARDS

Crude Oil by Rail

Historically, pipelines have transported most crude oil. However, as higher crude oil production outpaced pipeline capacity, railroads were used to help fill the gap. Rail shipments of crude oil have fluctuated over time. Oil by rail in the United States increased from 9,500 carloads in 2008 to 434,000 carloads in 2013 (California Interagency Rail Safety Working Group 2014). At its peak in 2014, crude oil accounted for between 1.6 to 1.7 percent of rail carloads on U.S. Class I railroads (Association of American Railroads 2022). Carloads then fell sharply the next few years as new pipelines were built, but carloads rebounded somewhat in 2018 and 2019.

The State of California Interagency Rail Safety Working Group (IRSWG) issued the *Oil by Rail Safety in California: Preliminary Findings and Recommendations* report in July 2014.¹ The IRSWG report identifies a correlation between an increase in crude oil by rail shipments and the number of incidents involving crude oil by rail. More crude oil by volume was spilled in rail incidents in 2013 than was spilled in the nearly four decades prior. Incidents involving oil by rail in California increased from three in 2011 to 25 in 2013. Total petroleum spills by rail in California (crude oil and other) increased from 98 in 2010 to 182 in 2013. The IRSWG report concludes that this data shows the potential for high-consequence incidents to increase as more oil is transported by rail. The report identified nine major accidents in 2013 and 2014, including three in Canada and six in the United

¹ The 2014 study is the most recent study available.

States. One of the derailments in Canada involved 47 fatalities; the eight other accidents did not result in injuries or fatalities. The report did not identify any crude oil derailments in California that have resulted in injuries or fatalities.

The IRSWG report identified and mapped areas along rail routes with potential high vulnerability and the locations of emergency response teams relative to the vulnerabilities. The IRSWG identified risks from oil by rail as well as gaps in local emergency response capabilities. Specifically, the following findings were identified:

- High hazard areas for derailments are primarily located in the mountains, with at least one such site along every rail route into California. Some high hazard areas are also located in more urban areas, such as in the San Bernardino-Riverside and San Luis Obispo regions. Overall, high hazard areas represent an estimated two percent of track and one percent of the derailments that have occurred. None of the high hazard areas are located in the vicinity of Martinez.
- Areas of vulnerable natural resources are located throughout the State, including in urban areas. A rail accident almost anywhere in California would place waterways and sensitive ecosystems at risk. The high hazard areas for derailments are generally located in areas with high natural resources vulnerability and nearby waterways (e.g., Dunsmuir, the Feather River Canyon).
- Emergency hazardous material response teams in California have generally good coverage of urban areas, but none are located near the high hazard areas in rural Northern California. The Martinez area is covered.
- Population centers, schools, and hospitals are frequently located near rail lines in urban areas and in the Central Valley. The Martinez area does not include any highly populated areas in the vicinity of a high hazard area identified by the IRSWG report.
- Earthquake faults are located along rail lines in many areas, especially in urban areas in and around Los Angeles and the Bay Area. A major earthquake could damage tracks and bridges beyond the immediate area of the marked faults.

Railways are located in the northern and central portions of the Study Area, as shown on the General Plan Land Use Map. These railways have the potential to transport hazardous materials, including crude oil.

Wildfire Hazards

The State has charged the California Department of Forestry and Fire Protection (CAL FIRE) with the identification of Fire Hazard Severity Zones (FHSZ) within State Responsibility Areas (SRA). In addition, CAL FIRE must recommend Very High Fire Hazard Severity Zones (VHFHSZ) identified within any Local Responsibility Areas (LRA). The FHSZ maps are used by the State Fire Marshall as a basis for the adoption of applicable building code standards. The Study Area includes LRA and SRA, with portions being designated as VHFHSZs, as shown in Figure 4.16-1 and Figure 4.16-2 and discussed in detail in Section 4.16, Wildfire, of this EIR.

LRAs are concentrated along the western edge of the City boundaries, within and surrounding the Franklin Hills Sub-Area. The open space areas on the western boundary of the City (and into unincorporated Contra Costa County) are designated as a VHFHSZ. SRAs are typically areas outside of city limits, but within spheres of influence (SOI). There is a Moderate to High FHSZ within the SRA along the southwestern perimeter of the Study Area, in the SOI, also referred to as the Alhambra Valley neighborhood and the unincorporated area to the west of the City.

In addition, there is a Federal Responsibility Area within the City of Martinez. The National Park Service is responsible for the Mt. Wanda area, which is designated for Open Space and Preservation.

In the event of a fire emergency, fire services are provided to the Study Area by the Contra Costa County Fire Protection District, and much of the City is served by the Martinez Water Department, which takes into account fire flow needs when determining storage.

Asbestos-Containing Materials (ACM)

Asbestos, a natural fiber used in the manufacturing of different building materials, has been identified as a human carcinogen. Most friable (i.e., easily broken or crushed) asbestos-containing materials (ACM) were banned in building materials by 1978. By 1989, most major manufacturers had voluntarily removed non-friable ACM (i.e., flooring, roofing, and mastics/sealants) from the market. These materials, however, were not banned completely. The Study Area includes existing development from and prior to the 1960s; therefore, the presence of ACM is likely in some structures.

Lead-Based Paint (LBP)

Lead-based paint has been identified by the Occupational Safety and Health Administration (OSHA), the Environmental Protection Agency (EPA), and the Department of Housing and Urban Development (HUD) as a potential health risk to humans, particularly children, based on its effects to the central nervous system, kidneys, and bloodstream. The risk of lead-based paint has been classified by HUD based upon the age and condition of the painted surface. The Study Area includes existing development from and prior to the 1960s; therefore, the presence of lead-based paint is likely in some structures.

4.8.2 REGULATORY SETTING

FEDERAL

Aviation Act of 1958

The Federal Aviation Act resulted in the creation of the Federal Aviation Administration (FAA). The FAA was charged with the creation and maintenance of a National Airspace System.

Clean Air Act

The Federal Clean Air Act (FCAA) was first signed into law in 1970. In 1977, and again in 1990, the law was substantially amended. The FCAA is the foundation for a national air pollution control effort,

and it is composed of the following basic elements: National Ambient Air Quality Standards (NAAQS) for criteria air pollutants, hazardous air pollutant standards, state attainment plans, motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

Clean Water Act

The Clean Water Act (CWA), which amended the Water Pollution Control Act (WPCA) of 1972, sets forth the Section 404 program to regulate the discharge of dredged and fill material into Waters of the United States and the Section 402 National Pollutant Discharge Elimination System (NPDES) to regulate the discharge of pollutants into Waters of the United States. The Section 401 Water Quality Certification program establishes a framework of water quality protection for activities requiring a variety of Federal permits and approvals (including CWA Section 404, CWA Section 402, Federal Energy Regulatory Commission Hydropower and Section 10 of the Rivers and Harbors Act).

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) introduced active federal involvement to emergency response, site remediation, and spill prevention, most notably the Superfund program. The Act was intended to be comprehensive in encompassing both the prevention of, and response to, uncontrolled hazardous substances releases. CERCLA deals with environmental response, providing mechanisms for reacting to emergencies and to chronic hazardous material releases. In addition to establishing procedures to prevent and remedy problems, it establishes a system for compensating appropriate individuals and assigning appropriate liability. It is designed to plan for and respond to failure in other regulatory programs and to remedy problems resulting from action taken before the era of comprehensive regulatory protection.

Environmental Protection Agency

The primary regulator of hazards and hazardous materials is the EPA, whose mission is to protect human health and the environment. The City of Martinez is located within EPA Region 9, which includes Arizona, California, Hawaii and New Mexico.

Federal Aviation Regulations (CFR, Title 14)

The Federal Aviation Regulations (FAR) establish regulations related to aircraft, aeronautics, and inspections and permitting.

FY 2001 Appropriations Act

Title IV of the Appropriations Act required the identification of “Urban Wildland Interface Communities in the Vicinity of Federal Lands that are at High Risk from Wildfire” by the U.S. Departments of the Interior and Agriculture.

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act, as amended, is the statute regulating hazardous materials transportation in the United States. The purpose of the law is to provide adequate protection against the risks to life and property inherent in transporting hazardous materials in interstate commerce. This law gives the U.S. Department of Transportation (DOT) and other agencies the authority to issue and enforce rules and regulations governing the safe transportation of hazardous materials.

Natural Gas Pipeline Safety Act

The Natural Gas Pipeline Safety Act authorizes the U.S. Department of Transportation Office of Pipeline Safety to regulate pipeline transportation of natural (flammable, toxic, or corrosive) gas and other gases as well as the transportation and storage of liquefied natural gas. The Office of Pipeline Safety regulates the design, construction, inspection, testing, operation, and maintenance of pipeline facilities. While the federal government is primarily responsible for developing, issuing, and enforcing pipeline safety regulations, the pipeline safety statutes provide for State assumption of the intrastate regulatory, inspection, and enforcement responsibilities under an annual certification. To qualify for certification, a state must adopt the minimum federal regulations and may adopt additional or more stringent regulations as long as they are not incompatible.

Pipeline and Hazardous Materials Safety Administration and Federal Railroad Administration

In May 2015, the Pipeline and Hazardous Materials Safety Administration (PHMSA) in coordination with the Federal Railroad Administration (FRA), issued a final rulemaking on the movement of “high-hazard flammable trains.” A high hazard flammable train is a continuous block of 20 or more tank cars loaded with a flammable liquid or 35 or more tank cars loaded with a flammable liquid dispersed through a train. The rule affects movement of flammable liquids by rail, including crude oil and ethanol. The final rule includes enhanced tank car standards and retrofitting requirements for older tank cars carrying crude oil and ethanol, requires a new braking standard, designates new operational protocols for trains transporting large volumes of flammable liquids, such as routing requirements, speed restrictions, and information sharing with local government agencies, and provides new sampling and testing requirements to improve classification of energy products placed into transport.

Resource Conservation and Recovery Act (RCRA)

This act established EPA’s “cradle to grave” control (generation, transportation, treatment, storage and disposal) over hazardous materials and wastes. In California, the Department of Toxic Substances Control (DTSC) has RCRA authorization.

STATE

Aeronautics Act (Public Utilities Code §21001)

The Caltrans Division of Aeronautics bases the majority of its aviation policies on the Aeronautics Act. Policies include permits and annual inspections for public airports and hospital heliports and recommendations for schools proposed within two miles of airport runways.

Airport Land Use Commission Law (Public Utilities Code §21670 et seq.)

The law, passed in 1967, authorized the creation of Airport Land Use Commissions (ALUC) in California. Per the Public Utilities Code, the purpose of an ALUC is to protect public health, safety, and welfare by encouraging orderly expansion of airports and the adoption of land use measures that minimizes exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses (§21670). Furthermore, each ALUC must prepare an Airport Land Use Compatibility Plan (ALUCP). Each ALUCP, which must be based on a twenty-year planning horizon, should focus on broadly defined noise and safety impacts.

Assembly Bill 337

Per AB 337, local fire prevention authorities and the California Department of Forestry and Fire Protection (CalFire) are required to identify “Very High Fire Hazard Severity Zones (VHFHSZ) in Local Responsibility Areas (LRA). Standards related to brush clearance and the use of fire resistant materials in fire hazard severity zones are also established.

California Code of Regulations

Title 3 of the CCR pertains to the application of pesticides and related chemicals. Parties applying regulated substances must continuously evaluate application equipment, the weather, the treated lands and all surrounding properties. Title 3 prohibits any application that would:

- Contaminate persons not involved in the application
- Damage non-target crops or animals or any other public or private property
- Contaminate public or private property or create health hazards on said property

Title 8 of the CCR establishes California Occupational Safety and Health Administration (Cal OSHA) requirements related to public and worker protection. Topics addressed in Title 8 include materials exposure limits, equipment requirements, protective clothing, hazardous materials, and accident prevention. Construction safety and exposure standards for lead and asbestos are set forth in Title 8.

Title 14 of the CCR establishes minimum standards for solid waste handling and disposal.

Title 17 of the CCR establishes regulations relating to the use and disturbance of materials containing naturally occurring asbestos.

Title 19 of the CCR establishes a variety of emergency fire response, fire prevention, and construction and construction materials standards.

Title 22 of the CCR sets forth definitions of hazardous waste and special waste. The section also identifies hazardous waste criteria and establishes regulations pertaining to the storage, transport, and disposal of hazardous waste.

Title 26 of the CCR is a medley of State regulations pertaining to hazardous materials and waste that are presented in other regulatory sections. Title 26 mandates specific management criteria related to hazardous materials identification, packaging, and disposal. In addition, Title 26 establishes requirements for hazardous materials transport, containment, treatment, and disposal. Finally, staff training standards are set forth in Title 26.

Title 27 of the CCR sets forth a variety of regulations relating to the construction, operation and maintenance of the State's landfills. The title establishes a landfill classification system and categories of waste. Each class of landfill is constructed to contain specific types of waste (household, inert, special, and hazardous).

California Fire Code

The 2019 California Fire Code (CCR Title 24, Part 9) establishes regulations to safeguard against the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety for and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout California. The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas.

California Government Code Section 65302

This section, which establishes standards for developing and updating General Plans, includes fire hazard assessment and Safety Element content requirements.

California Health & Safety Code

Division 11 of the Health and Safety Code establishes regulations related to a variety of explosive substances and devices, including high explosives and fireworks. Section 12000 et seq. establishes regulations related to explosives and explosive devices, including permitting, handling, storage, and transport (in quantities greater than 1,000 pounds).

Division 12 establishes requirements for buildings used by the public, including essential services buildings, earthquake hazard mitigation technologies, school buildings, and postsecondary buildings.

Division 20 of the Health and Safety Code establishes DTSC authority and sets forth hazardous waste and underground storage tank regulations. In addition, the division creates a State superfund framework that mirrors the Federal program.

Division 26 of the Health and Safety Code establishes California Air Resources Board (CARB) authority. The division designates CARB as the air pollution control agency per Federal regulations and charges the Board with meeting Clean Air Act requirements.

CA Health and Safety Code and UBC Section 13000 et seq.

State fire regulations are set forth in §13000 *et seq.* of the California Health and Safety Code, which is divided into “Fires and Fire Protection” and “Buildings Used by the Public.” The regulations provide for the enforcement of the UBC and mandate the abatement of fire hazards.

The code establishes broadly applicable regulations, such as standards for buildings and fire protection devices, in addition to regulations for specific land uses, such as childcare facilities and high-rise structures.

CA Vehicle Code Section 31600 (Transportation of Explosives)

Establishes requirements related to the transportation of explosives in quantities greater than 1,000 pounds, including licensing and route identification.

California Public Resources Code

The State’s Fire Safe Regulations are set forth in Public Resources Code §4290, which include the establishment of State Responsibility Areas (SRA).

Public Resources Code §4291 sets forth defensible space requirements, which are applicable to anyone that *...owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered with flammable material* (§4291(a)).

California Public Utilities Commission (CPUC)

CPUC is the State agency charged with ensuring the safety of freight railroads, inter-city and commuter railroads, and highway-railroad crossings in the State of California. CPUC performs these railroad safety responsibilities through the Railroad Operations and Safety Branch (ROSB) of the Safety & Enforcement Division. ROSB’s mission is to ensure that California communities and railroad employees are protected from unsafe practices on freight and passenger railroads by enforcing state and federal rail safety rules, regulations, and inspection efforts; and by carrying out proactive assessments of potential risks before they create dangerous conditions. ROSB investigates rail accidents and safety related complaints, and recommends safety improvements to the Commission, railroads, and the federal government as appropriate. In addition to enforcing California Public Utilities Code and CPUC General Orders, ROSB inspectors enforce FRA regulations in a state/federal enforcement partnership.

Food and Agriculture Code

Division 6 of the California Food and Agricultural Code (FAC) establishes pesticide application regulations. The division establishes training standards for pilots conducting aerial applications as well as permitting and certification requirements.

State Oversight of Hazards and Hazardous Materials

The DTSC is primarily responsible for regulation, handling, use, and disposal of toxic materials while the SWRCB regulates discharge of potentially hazardous materials to waterways and aquifers and administers the basin plans for groundwater resources in the various regions of the state. The RWQCB oversees surface and groundwater in Contra Costa County. Programs intended to protect workers from exposure to hazardous materials and from accidental upset are covered under the Occupational Health and Safety Administration at both the federal level (OSHA) and at the State level through the California Division of Occupational Safety and Health (CAL/OSHA), as well as through the California Department of Health Services (DHS). Air quality is regulated through the California Air Resources Board (CARB) and Bay Area Air Quality Management District (BAAQMD). The State Fire Marshal is responsible for the protection of life and property through the development and application of fire prevention engineering, education and enforcement; CalFire provides fire protection services for California's state- and privately-owned wildlands.

Water Code

Division 7 of the California Water Code, commonly referred to as the Porter-Cologne Water Quality Control Act, created the SWRCB and the RWQCB. In addition, water quality responsibilities are established for the SWRCB and RWQCBs.

LOCAL

Certified Unified Program Agency (CUPA)

The California Environmental Protection Agency designates specific local agencies as Certified Unified Program Agencies (CUPA), typically at the county level. In Contra Costa County, the Contra Costa County Health Services Department Hazardous Materials Division is responsible for the County's CUPA programs. Each designated CUPA is responsible for the implementation of six statewide programs within its jurisdiction. These programs include:

- Underground storage of hazardous substances (USTs)
- Hazardous Materials Business Plan (HMBP) requirements
- Hazardous Waste Generator requirements
- California Accidental Release Prevention (Cal-ARP) program
- Uniform Fire Code hazardous materials management plan
- Above Ground Storage Tanks (Spill Prevention Control and Countermeasures Plan only)

Implementation of these programs involves:

- Permitting and inspection of regulated facilities

- Providing educational guidance and notice of changing requirements stipulated in State or Federal laws and regulations
- Investigations of complaints regarding spills or unauthorized releases
- Administrative enforcement actions levied against facilities that have violated applicable laws and regulations

Contra Costa County Hazard Mitigation Plan

The City adopted the Contra Costa County Hazard Mitigation Plan (Volume 1 and the City of Martinez's portion of Volume 2) on December 5, 2018. The plan serves as its local hazard mitigation plan and fully addresses the requirements of Government Code section 65302(g)(4). The plan incorporates a process where hazards are identified and profiled, the people and facilities at risk are analyzed, and mitigation actions are developed to reduce or eliminate hazard risk. The implementation of these mitigation actions, which include both short- and long-term strategies, involves planning, policy changes, programs, projects, and other activities. The plan covers the unincorporated county, 25 special purpose districts, and 10 municipalities, including the City of Martinez.

Contra Costa County Emergency Operations Plan (2015)

The Contra Costa County Emergency Operations Plan (EOP), approved June 16, 2015, provides the basis for a coordinated response before, during, and after an emergency affecting Contra Costa County. The EOP establishes emergency organization, assigns tasks, specifies policies and general procedures, and provides for the coordination of planning efforts of the various emergency staff and service elements in the Operational Area. The EOP facilitates multi-jurisdictional and interagency coordination in emergency operations and is designed to be utilized in coordination with applicable local, State and federal contingency plans. It also establishes the organizational framework of the California Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS) within Contra Costa County.

Contra Costa County Airport Land Use Compatibility Plan

The Contra Costa County ALUCP, adopted by the Contra Costa County ALUC on December 13, 2000, establishes policies applicable to land use compatibility planning in the vicinity of airports throughout the County, including the Buchanan Field Airport. The basic function of the ALUCP is to promote compatibility between airports and the land uses that surround them. The ALUCP serves as a tool for use by the ALUC in fulfilling its duty to review airport and adjacent land use development proposals.

City of Martinez General Plan

The adopted City of Martinez General Plan identifies policies related to hazardous materials in relation to waterway impacts in the Alhambra Creek Enhancement Plan component of the General Plan and addresses wildfire fire hazards in the Safety Element. The General Plan notes that Martinez has a high risk of future hazardous materials incidents and may be subject to the occurrence of accidental releases of dangerous substances from a variety of sources due to its location among a heavy concentration of petroleum and chemical processing plants, including, but not limited to,

those located within or adjacent to the Concord-Green Valley Fault. Hazardous chemicals are transported in and out of the area on a daily basis through transportation systems, including: Interstate 680, Highway 4, local streets; the Union Pacific and Burlington Northern and Santa Fe (BNSF) Railroads; access through San Pablo Bay, Carquinez Straits, and Suisun Bay; Buchanan Field; and petroleum and natural gas pipelines and pump stations. The General Plan contains goals, policies, and implementation measures designed to minimize risks of accidental release of hazardous materials and hazards associated with Buchanan Field.

City of Martinez Municipal Code

Chapter 8.16, *Solid Waste Management*, of the City of Martinez Municipal Code regulates solid waste handling, including hazardous waste, in order to protect public health, safety, and welfare.

Title 14, *Emergency Organization and Functions*, provides for the preparation and carrying out of plans for the protection of persons and property within the City in the event of an emergency; the direction of the emergency organization; and the coordination of the emergency functions of this City with all other public agencies, corporations, organizations, and affected private persons.

Chapter 15.28, *Fire Prevention Code*, ratifies the Contra Costa County Fire Protection District Fire Code, adopting by reference the 2019 California Fire Code (California Code of Regulations, Title 24, Part 9 [based on the 2018 International Fire Code published by the International Code Council]) as amended by the changes, additions, and deletions set forth in the ordinance adopting the Contra Costa County Fire Protection District Fire Code for the same triennial cycle.

Chapter 22.33, *Hillside Development Regulations*, regulates development of hillside areas by relating intensity of development to the limitations imposed by topography, hydrology, and geology, and avoiding development in areas prone to erosion, flooding and landsliding; ensuring that the level of development is consistent with the level of services which reasonably can be provided in hill areas; and preserving the natural features, environmental quality and scenic character of the hills while providing creative, innovative and safe residential development with a variety of housing types. Section 22.33.040, *Development Standards*, provides for landscaping standards which include selection of plant species that are drought tolerant and minimize erosion and fire hazard risks to persons and property.

City of Martinez Emergency Operations Plan

The City of Martinez EOP (2009) identifies the City's emergency planning, organization, and response policies and procedures. The City's EOP addresses the City's responsibilities in emergencies associated with an "all hazards" approach in managing natural disasters and human-caused emergencies; and provides a framework for coordination of response and recovery efforts within the City in coordination with local, State, and federal agencies, while maintaining the flexibility needed to adapt to various situations that arise.

4.8.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact associated with hazards and hazardous materials if it will:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- 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;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- 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;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

IMPACTS AND MITIGATION MEASURES

Impact 4.8-1: General Plan implementation has the potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment (Less than Significant)

Future development, infrastructure, and other projects allowed under the General Plan may involve the transportation, use, and/or disposal of hazardous materials. Hazardous materials are typically used in industrial, and commercial uses, as well as residential uses. Future uses may involve the transport and disposal of such materials from time to time. Future activities may involve equipment or construction activities that use hazardous materials (e.g., coatings, solvents and fuels, and diesel-fueled equipment), cleanup of sites with known hazardous materials, the transportation of excavated soil and/or groundwater containing contaminants from areas that are identified as being contaminated, or disposal of contaminated materials at an approved disposal site. While hazardous materials may be associated with industrial activities, hazardous materials may also be associated with the regular cleaning and maintenance of residential and other less intense uses. Accidental release of hazardous materials that are used in the construction or operation of a project may occur.

There is also the potential for accidental release of pre-existing hazardous materials such as asbestos or lead based paint associated with previous activities on a site.

The General Plan Update would enable development of new residential, commercial, industrial, and public uses. Construction activities associated with new development could result in upset and/or accident conditions involving the release of hazardous materials into the environment. Specific development projects have not been identified as part of the General Plan Update. However, future development accommodated through implementation of the General Plan Update could involve the demolition of existing structures and buildings as areas within the City are redeveloped. As discussed above, the Study Area includes existing development from and prior to the 1960s; therefore, the presence of LBP, ACM, and/or other contaminants, which are typically present in buildings and structures constructed prior to 1978, are likely present in some structures. All demolition that could result in the release of ACMs or lead-based paint would be conducted according to federal and State regulations which govern the renovation and demolition of structures where ACMs and lead-based paint are present. The National Emission Standards for Hazardous Air Pollutants mandates that building owners conduct an asbestos survey to determine the presence of ACMs prior to the commencement of any remedial work, including demolition. If ACM material is found, abatement of asbestos would be required prior to any demolition activities. If paint is separated from building materials (chemically or physically) during demolition of the structures, the paint waste would be required to be evaluated independently from the building material by a qualified Environmental Professional in accordance with California Code of Regulations Title 8, Section 1532.1. If LBP is found, abatement would be required to be completed by a qualified Lead Specialist prior to any demolition activities. Compliance with existing regulations related to ACM and LBP would reduce potential impacts to a less than significant level.

Future development accommodated through implementation of the General Plan Update could involve grading and excavation activities which could expose construction workers and the public to previously unknown hazardous substances present in the soil or groundwater. Exposure to contaminants could occur if the contaminants migrated to surrounding areas or if contaminated zones were disturbed at the contaminated location. Grading and excavation activities could also reveal previously unidentified underground storage tanks. Although underground storage tank removal activities could pose risks to workers and the public, potential risks would be minimized by managing the tank according to existing Contra Costa County Health Services Department Hazardous Materials Division standards. Potential impacts to groundwater would be dependent upon the type of contaminant, the amount released, and depth to groundwater at the time of the release.

The public could also be exposed to hazardous materials if new development or redevelopment were to be located on a current or historical hazardous material site. Currently, there are two active site locations with a Martinez address listed in the EnviroStor database: ACME Landfill and the Maltby Pump Station. There are two open LUST sites in the Study Area: 55 Howe Road Investors, LLC and Kaiser Medical Office - Martinez.

Additionally, the Martinez Study Area is surrounded by a heavy concentration of petroleum and chemical processing plants and may be subject to the occurrence of accidental releases of dangerous substances from a variety of sources. Hazardous materials are transported into and out of the area

on a daily basis utilizing various transportation routes and systems including: Interstate 680, Highway 4, local streets, the Union Pacific and BNSF Railroads, San Pablo Bay, Carquinez Straits, and Suisun Bay, Buchanan Field, and petroleum and natural gas pipelines and pump stations. As discussed above, Martinez is not located in or near a high hazard area for train derailments. The U.S. Department of Transportation PHMSA and FRA establish rules and regulations related to the transport of hazardous materials, including crude oil by rail. The State CPUC ensures the safety of freight railroads, inter-city and commuter railroads, and highway-railroad crossings through the Railroad Operations and Safety Branch (ROSB) of the Safety & Enforcement Division. ROSB enforces State and federal rail safety rules, regulations, inspection, and assessment efforts to ensure that California communities and railroad employees are protected from unsafe practices on freight and passenger railroads. The Martinez area is served by a Type 1 hazardous materials response team as well as a non-certified hazardous materials response team. Although the General Plan Update would continue to allow for development in proximity to the existing rail line, the proposed General Plan Update does not include any specific development proposals and would not directly increase the movement of crude oil or other hazardous materials by rail. Further, the General Plan Update would not alter existing railroad operations.

Federal, State and local agencies have developed regulations to investigate and mitigate effects, resulting from the storage, use, transport, and disposal of hazardous materials and waste. In California, the U.S. Environmental Protection Agency (U.S. EPA) has granted the California Environmental Protection agency (Cal EPA) enforcement authority for management of hazardous materials. Locally, the Hazardous Materials Program of Contra Costa Health Services (CCHS) has been granted responsibility for implementation and enforcement of many hazardous materials in Contra Costa under the CUPA. CUPAs and Program Agencies (PAs) throughout the State created a partnership and formed the California CUPA Forum. Together, members of the California CUPA Forum and representatives of local, State, and federal agencies established the Unified Program Administration and Advisory Group (UPAAG) to effectively address policy decisions, education and problem-solving. The Unified Program consolidates the administration, permit, inspection, and enforcement activities of the following environmental and emergency management programs: Aboveground Petroleum Storage Act (APSA) Program; Area Plans for Hazardous Materials Emergencies; California Accidental Release Prevention (CalARP) Program; Hazardous Materials Release Response Plans and Inventories (Business Plans); Hazardous Material Management Plan (HMMP) and Hazardous Material Inventory Statements (HMIS) (California Fire Code); Hazardous Waste Generator and Onsite Hazardous Waste Treatment Programs; and Underground Storage Tank Program. State agency partners involved in the implementation of the Unified Program are responsible for setting program element standards, working with CalEPA to ensure program consistency and provide technical assistance to CUPAs and PAs.

The use, transportation, and disposal of hazardous materials is regulated and monitored by local fire departments, CUPAs, Cal OSHA, and the DTSC, consistent with the requirements of federal, State, and local regulations and policies. Facilities that store hazardous materials on-site are required to maintain a Hazardous Materials Business Plan in accordance with State regulations. In the event of an accidental release of hazardous materials, the local CUPA and emergency management agencies (e.g., Police and Fire) would respond. All future projects allowed under the General Plan Update

would be required to comply with the provisions of federal, State, and local requirements related to hazardous materials. As future development and infrastructure projects are considered by the City, each project would be evaluated for potential impacts, specific to the project, associated with hazardous materials as required under CEQA.

In addition to the requirements associated with federal, State, and local regulations, the General Plan Update includes policies and implementation measures that are intended to reduce the risk of hazards associated with hazardous materials. Policy PS-P-13.1 encourages adequate separation between areas that contain hazardous materials and sensitive receptors. Policy PS-P-13.2 recommends that hazardous materials storage and handling areas are designed to minimize the possibility of environmental contamination and adverse off-site impacts. Policy PS-P-13.3 requires the City to coordinate with appropriate local, state, and federal agencies regarding hazardous waste reduction, handling, and disposal. Policy LU-P-6.1 requires the City to consider environmental justice issues related to potential adverse health impacts, including exposure to hazardous materials. Policy PS-P-13.4 requires that all processes involving hazardous waste (including its transportation, storage, and disposal) are conducted in a manner that meets or exceeds state and federal standards. Implementation Measure PS-I-13.1a establishes an appropriate buffer between land uses involving hazardous materials and those where the presence of hazardous materials is incompatible. These policies and implementation measures in the General Plan Update would ensure that potential hazards are identified on a project site, that development is located in areas where potential exposure to hazards and hazardous materials can be mitigated to an acceptable level, and that business operations comply with Federal and State regulations regarding the use, transport, storage, and disposal of hazardous materials. The General Plan Update also includes policies and actions to ensure that the City has adequate emergency response plans and measures to respond in the event of an accidental release of a hazardous substance.

As described previously in the regulatory setting, hazardous materials regulations related to the use, handling, and transport of hazardous materials are codified in Titles 8, 22, and 26 of the CCR, and their enabling legislation set forth in Chapter 6.95 of the California Health and Safety Code. These laws were established at the state level to ensure compliance with federal regulations to reduce the risk to human health and the environment from the routine use of hazardous substances. These regulations must be implemented by employers/businesses, as appropriate, and are monitored by the State (e.g., Cal OSHA in the workplace or DTSC for hazardous waste) and/or the County. Implementation of Title 49, Parts 171-180, of the Code of Federal Regulations would reduce any impacts associated with the potential for accidental release of hazardous materials. Therefore, implementation of the General Plan Update policies and implementation measures, as well as federal and State regulations, would ensure that potential impacts associated with the routine use, transport, storage, or disposal or foreseeable upset and/or accidental release of hazardous materials would be reduced to **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS**Land Use Element*****Policies***

LU-P-6.1 Consider environmental justice issues related to potential adverse health impacts associated with land use decisions, including exposure to hazardous materials, industrial activity, vehicle exhaust, and other sources of pollution, on residents regardless of age, culture, gender, race, socioeconomic status, or geographic location.

Implementation Measures

LU-I-6.1a Review all development proposals, planning projects, and infrastructure projects to ensure that potential adverse impacts to disadvantaged communities, such as exposure to pollutants, including toxic air contaminants, and unacceptable levels of noise and vibration are reduced to the extent feasible and that measures to improve quality of life, such as connections to bicycle and pedestrian paths, community services, schools, and recreation facilities, access to healthy foods, and improvement of air quality are included in the project. The review shall address both the construction and operation phases of the project.

Public Safety Element***Goals***

PS-G-13 Minimize as feasible risks to life, property and the environment resulting from the use, storage, transportation and disposal of hazardous materials.

Policies

PS-P-13.1 Encourage adequate separation between areas that contain hazardous materials and sensitive receptors.

PS-P-13.2 Recommend that hazardous materials storage and handling areas are designed to minimize the possibility of environmental contamination and adverse off-site impacts.

PS-P-13.3 Coordinate with appropriate local, state, and federal agencies regarding hazardous waste reduction, handling, and disposal.

PS-P-13.4 Require that all processes involving hazardous waste (including its transportation, storage, and disposal) are conducted in a manner that meets or exceeds state and federal standards.

Implementation Measures

PS-I-13.1a Through land use policy and text amendments, establish an appropriate buffer between land uses involving hazardous materials and those where the presence of hazardous materials is incompatible.

Impact 4.8-2: General Plan implementation has the potential to 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)

The City of Martinez is served by a variety of preschools, elementary, middle, and high schools; refer to Section 4.13, Public Services of this EIR. As noted above, future development under the General Plan Update could utilize, transport, store, or dispose of hazardous materials during construction or operation. Excavation and grading activities associated with future development could expose the public to unknown hazardous materials present in soil or groundwater, which would require remediation activities. Remediation, if any, would include potential transport of hazardous materials to an approved landfill facility.

CEQA Guidelines Section 15186, *School Facilities*, requires that school projects, as well as projects proposed to be located near schools, examine potential health impacts resulting from exposure to hazardous materials, wastes, and substances. Furthermore, permitting requirements for individual hazardous material handlers or emitters would require evaluation and notification where potential hazardous materials handling and emissions could occur in proximity to existing schools.

All hazardous materials would be handled in accordance with federal, State, and local requirements, which would limit the potential for a project to expose nearby uses, including schools, to hazardous emissions or an accidental release. Hazardous emissions are monitored by the BAAQMD, RWQCB, DTSC and the local CUPA. In the event of a hazardous materials spill or release, notification and cleanup operations would be performed in compliance with applicable federal, State, and local regulations and policies. In addition, the General Plan Update includes policies and implementation measures to address potential impacts associated with hazardous materials. Policy PS-P-13.1 would ensure adequate separation between areas that contain hazardous materials and sensitive receptors. Policy PS-P-13.2 recommends that hazardous materials storage and handling areas are designed to minimize the possibility of environmental contamination and adverse off-site impacts. Policy PS-P-13.3 requires the City to coordinate with appropriate local, state, and federal agencies regarding hazardous waste reduction, handling, and disposal. Policy PS-P-13.4 requires that all processes involving hazardous waste (including its transportation, storage, and disposal) are conducted in a manner that meets or exceeds state and federal standards. Implementation Measure PS-I-13.1a establishes an appropriate buffer between land uses involving hazardous materials and those where the presence of hazardous materials is incompatible. These policies and implementation measures in the General Plan would ensure that potential hazards are identified on a project site, that development is located in areas where potential exposure to hazards and hazardous materials can be mitigated to an acceptable level, and that business operations comply with Federal and State regulations regarding the use, transport, storage, and disposal of hazardous materials. Implementation of the safety procedures and regulations mandated by applicable federal, State, and local laws would ensure that potential risks resulting from the routine transportation, use, storage, or disposal of hazardous materials or hazardous wastes in proximity to a school associated with implementation of the General Plan Update would be **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS***Public Safety Element******Goals***

PS-G-13 Minimize as feasible risks to life, property and the environment resulting from the use, storage, transportation and disposal of hazardous materials.

Policies

PS-P-13.1 Encourage adequate separation between areas that contain hazardous materials and sensitive receptors.

PS-P-13.2 Recommend that hazardous materials storage and handling areas are designed to minimize the possibility of environmental contamination and adverse off-site impacts.

PS-P-13.3 Coordinate with appropriate local, state, and federal agencies regarding hazardous waste reduction, handling, and disposal.

PS-P-13.4 Require that all processes involving hazardous waste (including its transportation, storage, and disposal) are conducted in a manner that meets or exceeds state and federal standards.

Implementation Measures

PS-I-13.1a Through land use policy and text amendments, establish an appropriate buffer between land uses involving hazardous materials and those where the presence of hazardous materials is incompatible.

Impact 4.8-3: General Plan implementation has the potential to have projects located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Less than Significant)

There are two active site locations within the Study Area that are on the Cortese list, compiled pursuant to Government Code Section 65962.5: ACME Landfill and the Maltby Pump Station. There are two open LUST sites in the Study Area: 55 Howe Road Investors, LLC and Kaiser Medical Office - Martinez. There are two locations in Martinez with an open case that are listed in the GeoTracker database for LUST. There are six locations listed in the GeoTracker database for Water Board Cleanup Sites in Martinez under remediation, four locations with verification monitoring, one location under site assessment, four sites listed as open but inactive, one open (long term management), and one open for assessment and interim remedial action.

The above-mentioned sites are subject to various State and federal laws and regulators, including the CERCLA, EPA, DTSC, and RWQCB. Development allowed by the General Plan Update could create a hazard to the public or the environment through a disturbance or release of contaminated materials if the development occurs on or adjacent to contaminated sites (whether previously

documented or not) without appropriate measures to contain or mitigate the existing contamination. State and federal regulations ensure that existing hazards, including those associated with known hazardous materials sites, are addressed prior to development.

The General Plan Update includes policies and implementation measures that are intended to reduce the risk of hazards associated with hazardous materials. Policy PS-P-13.1 encourages adequate separation between areas that contain hazardous materials and sensitive receptors. Policy PS-P-13.2 recommends that hazardous materials storage and handling areas are designed to minimize the possibility of environmental contamination and adverse off-site impacts. Policy PS-P-13.3 requires the City to coordinate with appropriate local, state, and federal agencies regarding hazardous waste reduction, handling, and disposal. Implementation Measure PS-I-13.1a establishes an appropriate buffer between land uses involving hazardous materials and those where the presence of hazardous materials is incompatible. Policy PS-P-13.4 requires that all processes involving hazardous waste (including its transportation, storage, and disposal) are conducted in a manner that meets or exceeds state and federal standards. In addition to these policies, all projects must comply with State and federal regulations related to hazardous materials. Implementation of the General Plan Update and compliance with federal and State regulations would ensure a **less than significant** impact with regard to potential sites included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Public Safety Element

Goals

PS-G-13 Minimize as feasible risks to life, property and the environment resulting from the use, storage, transportation and disposal of hazardous materials.

Policies

PS-P-13.1 Encourage adequate separation between areas that contain hazardous materials and sensitive receptors.

PS-P-13.2 Recommend that hazardous materials storage and handling areas are designed to minimize the possibility of environmental contamination and adverse off-site impacts.

PS-P-13.3 Coordinate with appropriate local, state, and federal agencies regarding hazardous waste reduction, handling, and disposal.

PS-P-13.4 Require that all processes involving hazardous waste (including its transportation, storage, and disposal) are conducted in a manner that meets or exceeds state and federal standards.

Implementation Measures

PS-I-13.1a Through land use policy and text amendments, establish an appropriate buffer between land uses involving hazardous materials and those where the presence of hazardous materials is incompatible.

Impact 4.8-4: The General Plan, located within an airport land use plan, would not result in a safety hazard or excessive noise for people residing or working in the project area (Less than Significant)

The City of Martinez does not have any airport facilities located within the Study Area. However, Martinez area residents are subject to small aircraft overflights from operations at Buchanan Field Airport. Review of the Contra Costa County ALUCP indicates that an eastern portion of the Study Area is within the AIA boundaries. As shown in Figure 4.8-1, Safety Zone 2 and Safety Zone 4 extend into the Study Area. The ALUCP sets safety standards for each Safety Zone, including permitted land uses and intensity, height limits, and hazardous materials storage. The General Plan Update does not propose any land use changes or increases in the intensity or density of land uses within the AIA boundaries. The area within the AIA would remain Public/Quasi Public and Open Space. The existing land use designations would remain; therefore, the General Plan Update would not introduce new residents or employees within AIA boundaries.

Noise exposure maps prepared and published in the 2008 Buchanan Field Airport Master Plan Update show that existing 2005 noise levels up to 75 CNEL were experienced near the airport. The Buchanan Field Airport Master Plan Update does not identify the City of Martinez as containing existing noise sensitive land uses within the noise contours. However, implementation of the General Plan Update would not result in the creation of new noise-sensitive land uses within the Buchanan Field noise contours.

Noise associated with aircraft overflights is also of concern when evaluating aircraft noise effects in terms of land use compatibility. Single-event noise is the maximum sound level produced by an individual approach overflight at a specific location, often described in terms of L_{max}, which is the maximum sound level recorded for each event. A different measurement of single-event noise, also commonly used when evaluating aircraft noise, is the SEL. The SEL describes the event's mean energy level over the duration of the noise event. As would be expected, single-event noise levels for aircraft overflights within the Study Area would be greatest and most frequent near the airport's primary flight paths. The majority of mapped noise contours associated with Buchanan Field are located outside of the City and SOI, however, a small portion of the 65 CNEL contour is located north of SR 4. Proposed uses within the City's SOI that would be affected by the 65 CNEL contour are undeveloped land designated GC by the Land Use Map. Implementation Measure N-I-1.3a would require an acoustical analysis for future development projects that are deemed to possibly result in violation of the noise standards, either in terms of a noise impact created by the new development that could affect nearby properties, or if the new development may be impacted by existing noise sources in the community. Additionally, Implementation Measure N-P-1.4 requires compliance with City noise standards to rests with new development, rather than forcing noise mitigation measures

upon existing uses. Therefore, any proposed development within the Buchanan Field noise contour would be required to comply with the above noise standards.

The General Plan Update includes policies and implementation actions that are intended to reduce the risk of safety hazards and excessive noise associated with the operation of Buchanan Field Airport. Policy PS-P-14.1 requires the City to continue to work with the County Public Works Department, Aviation Advisory Committee, ALUC, the Metropolitan Transportation Commission (MTC), Federal Aviation Administration (FAA), and other relevant agencies to protect and minimize the risk to lives and property due to hazards associated with the operation of Buchanan Field Airport. NA-P-2.8 aims to minimize noise impacts of air flight paths over the City, including the impacts of helicopter flight paths related to operation of regional hospitals. PS-I-14.1a ensures land use policy takes into account flight paths and reduces height limits and location of structures. NA-I-2.8a directs the City to work with Buchanan Airfield to promote a fly neighborly program to minimize noise results from low altitude general aircraft over Martinez. Implementation of the General Plan Update would ensure a **less than significant** impact with regard to this issue.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Public Safety Element

Goals

PS-G-14 Reduce the risk of hazards associated with the operation of Buchanan Field Airport.

Policies

PS-P-14.1 Continue to work with the County Public Works Department, Aviation Advisory Committee, Airport Land Use Commission (ALUC), the Metropolitan Transportation Commission (MTC), Federal Aviation Administration (FAA), and other relevant agencies to protect minimize the risk to lives and property due to hazards associated with the operation of Buchanan Field Airport.

Implementation Measures

PS-I-14.1a Through land use policy, ensure that development takes into account flight paths and reduces height limits and location of structures accordingly.

Noise and Air Quality Element

Goals

NA-G-1 Continue to implement City noise standards to provide protection from unsafe and undesirable noise levels.

NA-G-2 Encourage acceptable noise levels in Martinez.

Policies

- NA-P-1.1 The interior and exterior noise level standards for noise-sensitive areas of new uses affected by transportation-related noise are as follows:
1. For traffic noise within Martinez, L_{dn} and peak-hour L_{eq} values are estimated to be approximately similar. Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions.
 2. Outdoor activity areas for single-family residential uses are defined as backyards. For large parcels or residences with no clearly defined outdoor activity area, the standard shall be applicable within a 100-foot radius of the residence.
 3. For multi-family residential uses, and for mixed-use projects that include residential units, the exterior noise level standard shall be applied at the common outdoor recreation area, such as at pools, play areas or tennis courts.
 4. Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn} or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn} may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.
 5. Outdoor activity areas of transient lodging facilities include swimming pool and picnic areas.
 6. Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
 7. Only the exterior spaces of these uses designated for employee or customer relaxation have any degree of sensitivity to noise.
- NA-P-1.3 Any City-required acoustical analysis shall be prepared according to specific standards and practices.
- NA-P-2.3 Discourage the establishment of acoustically incompatible land uses in juxtaposition or adjacency to each other, when possible.
- NA-P-2.4 Discourage land use patterns and traffic patterns that expose sensitive noise receptors (hospitals, schools, churches, senior care uses, etc.) to noise levels that exceed noise standards and the City's Noise Control Ordinance.
- NA-P-2.8 Minimize the noise impacts of air flight paths over the City, including the impacts of helicopter flight paths related to operation of regional hospitals.

Implementation Measures

NA-I-1.1a Evaluate new development proposals for compliance with the standards established in Table 9-5. Where necessary, the City may require preparation of a noise study to determine compliance.

NA-I-1.3a An acoustical analysis may be required by the City for development projects that are deemed to possibly result in violation of the noise standards outlined in Policies N-1.1 and N-1.2, above, either in terms of a noise impact created by the new development that could affect nearby properties, or if the new development may be impacted by existing noise sources in the community. Additionally, a noise analysis may be required regarding project proximity to noise sensitive receptors.

Where an acoustical analysis is required by the City, it shall be prepared in accordance with the following provisions:

- a) Applicant has the financial responsibility (with the study to be administered by the City).
- b) Must be prepared by qualified persons experienced in the fields of environmental noise assessment and architectural acoustics.
- c) Include representative noise-level measurements with sufficient sampling periods and locations to adequately describe local conditions.
- d) Estimate existing and projected (project and cumulative) noise levels in terms of City noise standards for both interior and exterior exposures.
- e) Recommend appropriate project-level noise mitigation measures. Where the noise source in question consists of intermittent single events, the report must address the effects of maximum noise levels in sleeping rooms evaluating possible sleep disturbance.
- f) Estimate interior and exterior noise exposure after the prescribed mitigations are implemented.
- g) Describe the post-project assessment program which could be used to evaluate the effectiveness of the proposed mitigations.

NA-I-2.8a Work with Buchanan Airfield to promote a fly neighborly program to minimize noise results from low altitude general aircraft over Martinez.

NA-I-2.8b Work with surrounding and area jurisdictions and hospitals to reduce the impact of helicopter takeoffs, landings and over-flights in Martinez.

Impact 4.8-5: General Plan implementation does not have the potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (Less than Significant)

The General Plan Update would allow a variety of new development, including residential, commercial, industrial, and public service projects, which would result in increased jobs and

population in the City of Martinez. Roads and infrastructure improvements would occur to accommodate the new growth. Future projects are not anticipated to remove or impede evacuation routes and the General Plan Update does not include land uses, policies, or other components that conflict with adopted emergency response or evacuation plans.

The City of Martinez EOP addresses the City's responsibilities in emergencies and provides a framework for coordination of response and recovery efforts within the City in coordination with local, State, and federal agencies. The City is also a member of the Contra Costa County Operational Area and is supported by the Contra Costa County Sheriff's Office of Emergency Services. Mutual aid is provided to members of the Operational Area via local, State, and federal agencies, including the Contra Costa County Sheriff's Department, Community Emergency Response Team (CERT), and the State of California Office of Emergency Services.

The General Plan Update includes policies that are intended to manage emergency situations. Policy PS-P-11.1 requires the use of the City's emergency response plan as the guide for emergency management in Martinez. Policy PS-P-11.2 encourages critical public facilities to remain operative during emergencies. Implementation Measure PS-I-11.1d requires the City to maintain and update the City's emergency response plan on a regular basis, designating emergency shelters and evacuation routes. Policy PS-P-11.4 encourages coordination of emergency drills with the Contra Costa County Fire Protection District, County Sheriff, and the City Police Department, so that the Plan's implementation during an emergency will happen smoothly. The General Plan Update includes provisions to ensure that transportation systems are maintained and/or improved throughout the City. Further, the General Plan Update Public Safety Element confirms that the City has established prearranged emergency response procedures, identified evacuation routes, and executed mutual aid agreements for emergency assistance within the Martinez City limits. Table 8-2 in the General Plan Update identifies streets within VHFHSZ areas that lack two routes for emergency evacuation and PS-I-6.7a directs the City to cooperate with the Contra Costa Fire Protection District to establish CERT training and public education for residents in areas lacking two access points for evacuation procedures. Therefore, through consistency and adherence to the General Plan Update policies and implementation measures, implementation of the General Plan Update would have a **less than significant** impact with regard to this issue.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Public Safety Element

Goals

- PS-G-11 Be prepared to act in emergency situations.
- PS-G-12 Provide effective, efficient, and immediately available Community Preparedness programs response in the event of a natural or man-made disaster.

Policies

- PS-P-11.1 Use the City's Emergency Response Plan as the guide for emergency management in Martinez.
- PS-P-11.2 Encourage critical public facilities to remain operative during emergencies.
- PS-P-11.3 Promote greater community awareness and preparedness by working with business associations, homeowners' associations, community groups, and utility providers.
- PS-P-11.4 Encourage coordination of emergency drills with the Contra Costa County Fire Protection District, County Sheriff, and the City Police Department, so that the Plan's implementation during an emergency will happen smoothly.
- PS-P-12.1 Maintain efficient and effective City government operation in case of any catastrophic emergency or disaster.
- PS-P-12.2 Maintain a current disaster management operations plan and adequately train personnel, including City employees.

Implementation Measures

- PS-I-4.3a Work with Contra Costa County Fire Protection District to develop emergency notification and evacuation procedures as part of the City's emergency response plan that is updated at least every 5 years.
- PS-I-6.7a In cooperation with the Contra Costa County Fire Protection District, establish CERT training and public education for residents in areas lacking two access points for evacuation procedures.
- PS-I-11.1a Continually evaluate response time and make improvements to equipment and personnel when necessary to ensure goals.
- PS-I-11.1b Periodically review the adequacy of training exercises and facilities to evaluate the need for improvements.
- PS-I-11.1c Evaluate the City's Emergency Operations Center on an annual basis to verify that it is adequately equipped.
- PS-I-11.1d Maintain and update the City's Emergency Response Plan on a regular basis, designating emergency shelters and evacuation routes.
- PS-I-11.3a Provide relevant community groups, and businesses, with an overview of the City's Emergency Response Plan, and periodically inform them of updates to the Plan when necessary.
- PS-I-12.1a Provide annual training for City employees and update the emergency preparedness plan.

PS-I-12.1b Conduct seminars and make public presentation on personal, family and neighborhood emergency preparedness when possible.

PS-I-12.1c Encourage public participation in the Community Emergency Response Team (CERT) program.

Impact 4.8-6: General Plan implementation does not have the potential to expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires (Less than Significant)

The potential for wildland fires represents a hazard to people and structures, particularly within areas adjacent to open space or within close proximity to wildland fuels. As described in Section 4.16, Wildfire, and shown in Figure 4.16-1 and Figure 4.16-2 in that section of this EIR, the Study Area and surrounding area contains Moderate to High FHSZs in both LRA and SRA. The western edge of the City boundaries, within and surrounding the Franklin Hills Sub-Area, is designated as a VHFHSZ within LRA. There are no SRA found within City limits; however, there are Moderate to High FHSZ within SRA along the southwestern perimeter of the Study Area, also referred to as the Alhambra Valley neighborhood, and in the unincorporated area to the west of the City. In addition to the direct physical threat to life and property, smoke released during an event can have a detrimental effect on air quality and lead to health risks from smoke inhalation.

Protection from wildland fires is realized through the creation of defensible areas around structures, the use of fire-resistant building materials, and coordinated emergency response. All new construction is required to adhere to standards and requirements set forth in the City of Martinez Municipal Code, including the Contra Costa County Fire Protection District Fire Code, which adopts by reference the 2019 California Fire Code (California Code of Regulations, Title 24, Part 9) as amended by the changes, additions, and deletions set forth in the ordinance adopting the Contra Costa County Fire Protection District Fire Code. The Contra Costa County Fire Protection District's ordinances and standards cover topics such as location of fire hydrants, provision of sprinklers and roadway widths, and provide the basis for the rural fire prevention capital facilities standards and response time performance standards specified in the City's Growth Management Element. Section 22.33.040, *Development Standards*, provides for landscaping standards in hillside areas which include selection of plant species that are drought tolerant and minimize erosion and fire hazard risks to persons and property.

The General Plan Update includes policies that are intended to protect citizens of Martinez from potential fire hazards. General Plan Update policy PS-P-5.1 requires fire safe construction practices, such as fire preventive site design, landscaping and building materials, and installation of sprinklers on new development and redevelopment projects. Policy PS-P-4.1 ensures that there is necessary maintenance on open space brush areas that are susceptible to burning. Policy PS-P-4.2 is intended to prevent the invasion of grassland by Baccharis (a highly fire prone plant) by retaining grazing on publicly owned rangelands and integrating grazing practices within developed areas. Policy PS-P-4.3 requires the City to continue to work with Contra Costa Fire Protection District to make Martinez more resilient to fire hazards. Policy PS-P-4.4 requires the City to work with Contra Costa Fire Protection District to promote public awareness. Policy PS-P-4.5 requires the City to review, amend,

and update, at regular intervals, all relevant City codes and ordinances to incorporate the most current knowledge and highest standards for safety. Policy PS-P-4.6 encourages the use of fire-retardant vegetation for landscaping, especially in high fire hazard areas.

In addition to the above referenced policies, the City maintains adequate water supply and water flow availability, ensures adequate emergency access, provides adequate fire protection services, and ensures public awareness regarding fire safety. Future development allowed under the General Plan Update would be required to comply with the provisions of federal, State, and local requirements related to wildland fire hazards, including State fire safety regulations associated with wildland-urban interfaces, fire-safe building standards, and defensible space requirements. As future development and infrastructure projects are considered by the City, each project would be evaluated for potential impacts, specific to the project, associated with wildland fire hazards as required under CEQA. Therefore, implementation of the General Plan Update, combined with local and State requirements, would ensure a **less than significant** impact with regard to this issue

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Public Safety Element

Goals

PS-G-4 Protect citizens of Martinez from potential fire hazards.

PS-G-5 Reduce fire hazards Citywide.

Policies

PS-P- 4.1 Perform necessary maintenance on open space brush areas that are susceptible to burning.

PS-P- 4.2 Prevent the invasion of grassland by Baccharis (a genus of perennials and shrubs that are highly flammable) by retaining grazing on publicly owned rangelands and integrating grazing practices within developed areas.

PS-P-4.3 Continue to work with Contra Costa Fire Protection District to make Martinez more resilient to fire hazards.

PS-P-4.4 Work with Contra Costa County Fire Protection District to promote public awareness of fire hazards and safety measures, including outreach to at-risk populations, and identification of low risk areas for temporary shelter and refuge during wildfire events.

PS-P-4.5 Review, amend and update, at regular intervals, all relevant City codes and ordinances to incorporate the most current knowledge and highest standards for safety.

PS-P-4.6 Encourage the use of fire-retardant vegetation for landscaping, especially in high fire hazard areas.

- PS-P-5.1 Require fire safe construction practices, such as fire preventive site design, landscaping and building materials, and installation of sprinklers on new development and redevelopment projects.
- PS-P-5.2 Encourage landscaping maintenance programs to reduce potential fire hazards in the hills, wildland areas, and urban interface.
- PS-P-5.3 Reduce fire hazard risks in existing developments by ensuring that private property is maintained to minimize vulnerability.
- PS-P-5.4 Work with the Contra Costa Fire Protection District to ensure adequate fire suppression resources in the local responsibility areas, and coordination with CALFIRE for state responsibility areas where wildfires may affect both areas.

Implementation Measures

- PS-I-4.1a Work with Contra Costa County Fire Protection District to support and consider providing fire safety demonstrations at public schools, civic and local organizations, businesses, industries, institutions and public gatherings, including outreach to at-risk populations.
- PS-I-4.1b Review current building and planning codes for any needed updates and require new developments and renovations to comply with the California Building Code, Fire Code, and local ordinances for construction and adequacy of water flow and pressure, ingress/egress and other measures for fire protection.
- PS-I-5.3.a: Implement requirements for non-combustible roofs and exterior siding in high fire areas. Continue to enforce regulations related to fire resistant construction, sprinkler systems, and early warning fire detection system installation.
- PS-I-5.3b Through the project review process, continue to ensure that landscaping, lighting, building siting and design, adequate water pressure and peak load storage capacity, and building construction materials reduce the opportunity for fire hazards.
- PS-I-5.3c Continue to require access for emergency vehicles and firefighting equipment on all new development and redevelopment projects. The City shall also identify the feasibility of constructing additional emergency access improvements for existing developments that do not meet minimum road standards for emergency equipment, such as:
 - a) Additional vehicle pullouts at key hillside locations.
 - b) Limiting or restricting on-street parking at key hillside locations.
 - c) Potential for construction of new or improved emergency access routes.
 - d) Roadside clearance improvements.
- PS-I-5.3.d Continue to implement the Contra Costa Fire Protection District Fire Code and Contra Costa County Wildfire Protection Plan including measures for defensible space, firefighting access, and construction standards.

- PS-I-5.3e Periodically update and adopt CALFIRE maps identifying fire hazard areas in Martinez.
- PS-I-5.3.f Ensure the location of new public facilities, such as schools and hospitals, are not located in Fire Hazard Severity Zones, and, if they are, in the event of a fire they can safely evacuate and or operate.
- PS-I-5.3g: Continue to consider the requirement of vegetation management plans in all new development. The City shall also identify the feasibility of other vegetation management options, including:
- a) Increased landscaping safety through elimination of use of fire-hazardous plants.
 - b) Use of non-prolific landscaping species.
 - c) Requiring project proponents in hillside areas to evaluate and upgrade as necessary fire flows and water supplies to hillside areas.
- PS-I-5.3i: Require the use of fire-safe planting materials in landscape plans for new development, including the use of non-prolific species. Include development standards requiring the same in the Design Guidelines.
- PS-I-5.3j: Provide information on methods for reducing fire hazards through the City's website and newsletter, including information on clearing of plant debris and combustible materials, use of fire-safe landscaping and defensible space, and modifying buildings to make them fire-resistant.
- PS-I-5.3m: Maintain fuel breaks and other fire defense improvements on public property and require similar measures for private maintenance of private property.

4.8.4 CUMULATIVE IMPACTS

Construction of individual development projects allowed under the land use designations of the General Plan Update may involve the transportation, use, and/or disposal of hazardous materials, which may involve the use of equipment that contains hazardous materials (e.g., solvents and fuels or diesel-fueled equipment), or the transportation of excavated soil and/or groundwater containing contaminants from areas that are identified as being contaminated. Furthermore, because of the regional nature of the General Plan, some future land uses could transport or use hazardous materials within one-quarter mile of a school, or other sensitive receptors such as hospitals and residences.

As with specific projects resulting from implementation of the General Plan Update, cumulative development would be required to evaluate individual hazards and hazardous materials impacts at the project-level. While some cumulative impacts would potentially occur in the region as individual projects are constructed, the General Plan Update policies and implementation measures, as well as local, State, and federal regulations, would reduce the risk to people associated with hazards and hazardous materials, including hazards associated with aircraft and wildland fire, in the region. Considering the protection granted by local, State, and federal agencies and their requirements for the use of hazardous materials and other potential hazards in the region, as described above, the

overall cumulative impact for hazards impacts would not be significant. As a result, the General Plan's incremental contribution to cumulative hazards and hazardous materials impacts would be **less than cumulatively considerable**.

4.8.5 SIGNIFICANT UNAVOIDABLE IMPACTS

Hazards and hazardous materials impacts associated with the implementation of the General Plan Update would be **less than significant**. No significant unavoidable hazards and hazardous materials impacts would occur as a result of the General Plan Update.

4.8.6 REFERENCES

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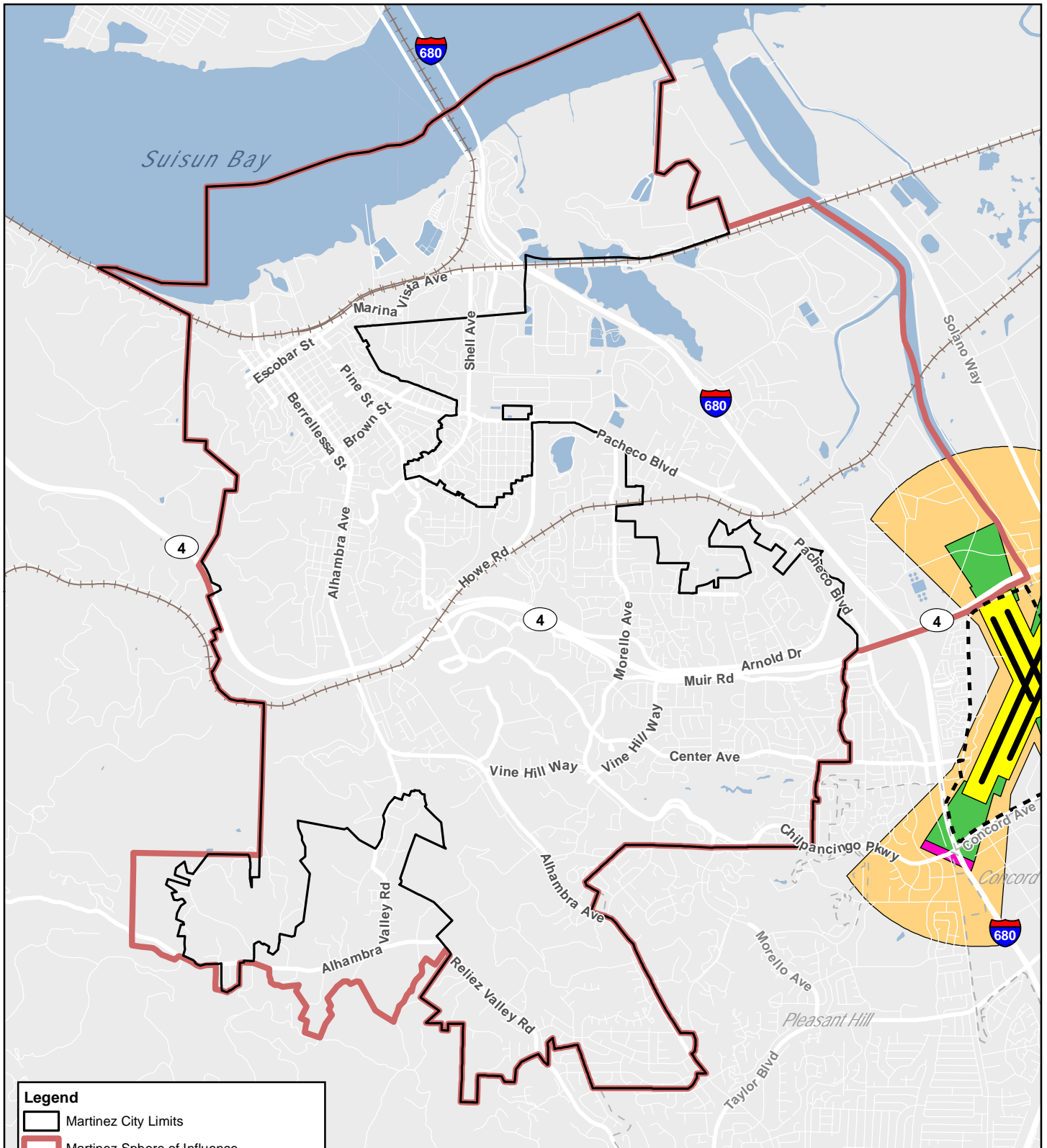
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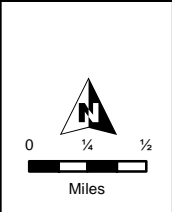
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Legend

- Martinez City Limits
- Martinez Sphere of Influence
- Buchanan Field Airport Property Boundary
- Buchanan Field Airport Safety Zones**
- Safety Zone 1
- Safety Zone 2
- Safety Zone 3
- Safety Zone 4
- Runway



CITY OF MARTINEZ
Figure 4.8-1. Airport Land Use Compatibility Zones

Sources: Contra Costa County Airport Land Use Compatibility Plan (December 2000), Figure 3C Safety Zones Buchanan Field Airport; California State Geoportal; Contra Costa County GIS. Map date: May 9, 2022.

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This section provides a background discussion of the regional hydrology, flooding, water quality, water purveyors, and water sources in Martinez. This section is organized with an existing setting, regulatory setting, and impact analysis.

One comment was received during the NOP 30-day public comment period related to this environmental topic. Comments related to hydrology and water quality pertained to identifying new information available for flood impacts and the potential for impacts on Alhambra Creek.

All comments received on the during the 30-day Notice of Preparation comment period are included in Appendix A of this Draft EIR.

Key Terms

AF: Acre Feet: The volume of one acre of water to a depth of one foot. Each acre-foot of water is equal to approximately 325,851.4 gallons.

AFY: Acre Feet per Year

BGS: Below Ground Surface.

CFS: Cubic Feet per Second.

GPD: Gallons per Day.

GPM: Gallons per Minute.

Groundwater: Water that is underground and below the water table, as opposed to surface water, which flows across the ground surface. Water beneath the earth's surface fills the spaces in soil, gravel, or rock formations. Pockets of groundwater are often called "aquifers" and are the source of drinking water for a large percentage of the population in the United States. Groundwater is often extracted using wells which pump the water out of the ground and up to the surface. Groundwater is naturally replenished by surface water from precipitation, streams, and rivers when this recharge reaches the water table.

MG: Million Gallons

MGD: Million Gallons per Day

Surface Water: Water collected on the ground or from a stream, river, lake, wetland, or ocean. Surface water is naturally replenished through precipitation, but is naturally lost through evaporation and seepage into soil.

4.9.1 ENVIRONMENTAL SETTING

REGIONAL HYDROLOGY

The City of Martinez is located in Contra Costa County, approximately 25 miles northeast of San Francisco and roughly 60 miles southwest of Sacramento. Martinez is situated just south of the Carquinez Strait which opens to the San Pablo Bay. Approximately seven miles to the east of Martinez is the confluence of the Sacramento and San Joaquin rivers that together furnish roughly 51 percent of the State's water supply (California Regional Water Quality Control Board, 2022). Surface water from the two drainage basins meet and form the Delta, which ultimately drains to San Francisco Bay. The Delta is a maze of river channels and diked islands covering roughly 1,150 square miles, including 78 square miles of water area. The legal boundary of the Delta is described in Section 12220 of the Water Code and is located roughly seven miles west of Martinez.

Topography

Martinez consists of two general topographic areas: the lowland area and the upland area. The low land area extends from the Carquinez Strait south and extends along Alhambra Creek in the western portion of Martinez, and along Pacheco Boulevard in the eastern portion of Martinez. The upland areas consist of hills that border the lowland areas on the west, east, and south. These hills represent the surface expression of structural folding and uplift.

Climate

Martinez has a typical Mediterranean climate (warm dry summer and cool wet winter) of the coastal areas of Central California. Mean annual precipitation is approximately 18.00 inches, more than 95 percent of which falls during the cool season, from October to April. Average daily temperature ranges from 36 to 89 degrees Fahrenheit (°F), but the extreme low and high temperatures have been 19°F and 115°F, respectively. The rainy season begins in November and ends in March.

WATERSHEDS

A watershed is a region that is bound by a divide that drains to a common watercourse or body of water. Watersheds serve an important biological function, oftentimes supporting an abundance of aquatic and terrestrial wildlife including special-status species and anadromous and native local fisheries. Watersheds provide conditions necessary for riparian habitat.

The State of California uses a hierarchical naming and numbering convention to define watershed areas for management purposes. This means that boundaries are defined according to size and topography, with multiple sub-watersheds within larger watersheds. Table 4.9-1 shows the primary watershed classification levels used by the State of California. The second column indicates the approximate size that a watershed area may be within a particular classification level, although variation in size is common.

TABLE 4.9-1: STATE OF CALIFORNIA WATERSHED HIERARCHY NAMING CONVENTION

Watershed Level	Approximate Square Miles (Acres)	Description
Hydrologic Region (HR)	12,735 (8,150,000)	Defined by large-scale topographic and geologic considerations. The State of California is divided into ten HRs.
Hydrologic Unit (HU)	672 (430,000)	Defined by surface drainage; may include a major river watershed, groundwater basin, or closed drainage, among others.
Hydrologic Area (HA)	244 (156,000)	Major subdivisions of hydrologic units, such as by major tributaries, groundwater attributes, or stream components.
Hydrologic Sub-Area (HSA)	195 (125,000)	A major segment of an HA with significant geographical characteristics or hydrological homogeneity.

SOURCE: CALWATER, CALIFORNIA INTERAGENCY WATERSHED MAPPING COMMITTEE 2008

Hydrologic Region

The San Francisco Bay (Hydrologic Region) HR covers approximately 2.88 million acres (4,500 square miles) and includes all of San Francisco and portions of Marin, Sonoma, Napa, Solano, San Mateo, Santa Clara, Contra Costa, and Alameda counties. The region corresponds to the boundary of Regional Water Quality Control Board (RWQCB) 2. Significant geographic features include the Santa Clara, Napa, Sonoma, Petaluma, Suisun-Fairfield, and Livermore valleys; the Marin and San Francisco peninsulas; San Francisco, Suisun, and San Pablo bays; and the Santa Cruz Mountains, Diablo Range, Bolinas Ridge, and Vaca Mountains of the Coast Range. While being the smallest in size of the 10 HRs in the State, the region has the second largest population in the State. Major population centers include the cities of San Francisco, San Jose, and Oakland (California Department of Water Resources, 2003).

Hydrologic Unit

The Study Area is within the western part of the Suisun Bay hydrologic unit (HUC 8) (Hydrologic Unit Code 18050001). The Suisun Bay watershed, which is characterized by generally treeless rolling hills with higher elevations ranging between 100 and 272 feet above mean sea level (amsl) and near the Sacramento and San Joaquin River delta to the east.

Hydrologic Area

For purposes of planning on a city-wide basis, hydrologic areas are generally considered to be the appropriate watershed planning level. As a planning area becomes smaller the hydrologic area level may be too large in terms of scale, and a hydrologic subarea may be considered more appropriate. The Study Area is located within three hydrologic areas (HUC 10). These include Walnut Creek-Frontal Suisun Bay Estuaries, Mount Diablo Creek-Frontal Suisun Bay Estuaries, and the Suisun Bay Watershed. Figure 4.9-1 illustrates the boundaries of the hydrologic area relative to the Study Area.

Hydrologic Sub-Area

There are numerous hydrologic sub-areas within and throughout Martinez and the city's Study Area. Analysis of hydrologic sub-areas is appropriate for the review of individual projects, but is not appropriate for the watershed analysis of the City's General Plan Update.

Groundwater Basins

The portion of the northern Study Area is underlain by the Arroyo del Hambre Valley Groundwater Basin (Groundwater Basin Number: 2-31). As described by California's Groundwater Bulletin 118 the Arroyo del Hambre Valley Groundwater Basin is located in northern Contra Costa County along the south shore of Suisun Bay. The basin is about 35 miles northeast of San Francisco. It is bounded by Suisun Bay on the north, the Berkeley foothills on the west, the Ygnacio Valley groundwater basin on the east and the City of Martinez on the south. The basin is underlain by Alluvium. Due to the lack of published data, the descriptions of the Arroyo del Hambre Valley groundwater basin hydrogeology are limited.

The nearest significant groundwater basin is the Ygnacio Valley groundwater basin (Basin 2-6). The Ygnacio Valley Groundwater Basin's surface area is approximately 15,900 acres bounded by Suisun Bay to the North, Interstate 680 to the west, the Concord Fault to the east, and the City of Walnut Creek to the south. The Ygnacio Valley Groundwater Basin underlies the Cities of Pleasant Hill and Walnut Creek; it occupies a structural depression between the Berkeley Hills and the Diablo Range. Thick alluvial deposits that cover a faulted and folded complex of consolidated Cretaceous and Tertiary rocks underlie the basin. The water-bearing units in the basin are Quaternary alluvium and alluvial valley fill deposits. Aquifers in the basin area are hydrologically connected to the Sacramento River.

FLOODPLAIN MAPPING

Dam Inundation

Earthquakes centered close to a dam are typically the most likely cause of dam failure. Dam Inundation maps have been required in California since 1972, following the 1971 San Fernando Earthquake and near failure of the Lower Van Norman Dam. The Study Area has one dam, the Martinez Dam, that is identified by the Division of Safety of Dams and Bureau of Reclamation.

The Martinez Dam is a Central Valley Project (CVP) in Contra Costa County, which contains the Martinez Reservoir. The dam was constructed by earth fill in 1946/1947 and is owned by the U.S. Bureau of Reclamation. The dam has a drainage area of 40.0 square miles, and an elevation of 72 feet. The total storage capacity is 268 AF. The reservoir's surface area is approximately 13 acres and has a Spillway Capacity of 53 CFS.

Martinez Reservoir is impounded in a small, north facing valley at the eastern edge of the City of Martinez. The site is situated on the northeast margin of the East Bay hills which are, in the immediate reservoir vicinity, rounded low hills rising to elevations of 200 feet or less. To the west and south, the topographic relief increases to 600 feet or more along prominent ridges and hills underlain by folded Tertiary and Cretaceous strata which strike generally northwest/southeast.

Approximately two miles north of the reservoir, the Sacramento River flows westward from Suisun Bay through the Carquinez Strait. At the reservoir site, the hills are underlain by moderately hard Tertiary sandstone and minor shale, commonly mantled by thin alluvial cover. The bedrock strata dips moderately to the southwest of the reservoir. Minor, discontinuous faults locally cut the bedrock, but do not significantly disrupt the overall northwest trending synclinal structure. Throughout the site vicinity, alluvium, stream channel deposits, and artificial fill apron the hills and underlie the lower ground.

The Martinez Dam does not have a history of dam failure; however, it is identified as having the potential to inundate habitable portions of the Study Area in the unlikely event of dam failure. The National Inventory of Dams information portal identified that the Martinez Dam, inspected August 17, 2020, has a “High” hazard potential. An Emergency Action Plan (EAP) has been developed by the dam owner. An EAP is a plan of action to be taken to reduce the potential for property damage and loss of life in an area affected by a dam failure or large flood. In addition to the Martinez Dam, two dams located outside the Study Area also have the potential to inundate portions of the Martinez Study Area in the event of dam failure. These include the Lafayette Dam and New Melones Dam.

Located in the City of Lafayette, Lafayette Reservoir Dam and its appurtenances, including an outlet tower, were constructed between 1927 and 1933. The dam is owned and operated by the East Bay Municipal Utility District (EBMUD). The reservoir provides an emergency water supply for EBMUD customers. The reservoir and its surrounding watershed land are also a recreational resource, first opened in 1966 and now hosting 1.4 million visitors per year, and habitat for a variety of plant and animal species.

The National Inventory of Dams information portal identifies the Lafayette Reservoir Dam as a “High” hazard potential; it was last inspected in December 2020. An EAP has been developed by the dam owner. A condition assessment was completed September 1, 2017 and it was determined to be in “Fair” assessed condition. A Fair assessment indicates the dam is expected to perform satisfactorily under normal conditions, however, there may be dam safety deficiency under rare or extreme conditions.

The New Melones Dam was constructed in 1979 and is a rockfill, earth dam owned and operated by the Bureau of Reclamation. The Dam and powerplant are on the Stanislaus River, about 60 miles upstream from its confluence with the San Joaquin River and 40 miles east of Stockton. The river forms the boundary between Calaveras and Tuolumne counties, and drains an area of about 980 square miles on the western slope of the Sierras in east-central California. The Stanislaus River Basin has three major tributaries, the North, South and Middle forks; and the annual average flow is almost 1,000,000 acre-feet. The climate is semiarid, with hot, dry summers and cool, wet winters. The primary function of New Melones Dam and Lake is flood control. Of the 2,400,000 acre-foot capacity, 450,000 acre-foot is reserved for flood control purposes.

The remaining capacity is used for a number of purposes including the satisfaction of preexisting water rights, fisheries enhancement, water quality improvement and electrical generation. The New Melones powerplant provides power for the equivalent of 72,000 households. The National Inventory of Dams information portal identified that the Dam has a “High” hazard potential; it was

inspected in December 2020, but has an “unknown” condition assessment. An EAP has been developed by the dam owner.

Tables 4.9-2 and Figure 4.9-2 shows the extent of inundation by surface water if each of these dams were to fail. As shown on Figure 4.9-2, the majority of inundation is concentrated within the eastern and northern portions of the Study Area.

TABLE 4.9-2: DAM INUNDATION AREA

Dam	City	SOI	Total
Lafayette	17.62	155.48	173.11
Martinez	418.40	386.30	804.70
New Melones	1,857.32	1,138.14	2,995.46
All Dams Combined¹	1,872.91	1,305.41	3,178.32

SOURCES: CALIFORNIA DEPARTMENT OF WATER RESOURCES; CALIFORNIA DEPARTMENT OF EMERGENCY SERVICES; CALIFORNIA STATE GEOPORTAL; CONTRA COSTA COUNTY. MAP DATE: APRIL 27, 2022.

NOTES:

1. NUMBERS ARE BASED ON MERGING LAFAYETTE, MARTINEZ, AND NEW MELONES AND TOTAL INCLUDES OVERLAP.

FEMA Flood Zones

FEMA mapping provides important guidance for the City in planning for flooding events and regulating development within identified flood hazard areas. FEMA’s National Flood Insurance Program (NFIP) is intended to encourage State and local governments to adopt responsible floodplain management programs and flood measures. As part of the program, the NFIP defines floodplain and floodway boundaries that are shown on Flood Insurance Rate Maps (FIRMs). The FEMA FIRM for the Study Area is shown on Figure 4.9-3.

Areas that are subject to flooding are indicated by a series of alphabetical symbols, indicating anticipated exposure to flood events:

- **Zone A:** Subject to 100-year flooding with no base flood elevation determined. Identified as an area that has a one percent chance of being flooded in any given year.
- **Zone AE:** Subject to 100-year flooding with base flood elevations determined.
- **Zone AH:** Subject to 100-year flooding with flood depths between one- and three-feet being areas of ponding with base flood elevations determined.
- **500-year Flood Zone:** Subject to 500-year flooding. Identified as an area that has a 0.2 percent chance of being flooded in a given year.

Creeks and Flood Control

There are several drainage basins within the Study Area. The City limits of Martinez include portions of several watersheds. Most of Martinez (including downtown) belongs to the lower third of the Alhambra Creek watershed, which originates in Briones Regional Park. The headwaters and upper watersheds of the Hidden Lakes, Virginia Creek, Vine Hill Creek, and Peyton Creek watersheds originate within Martinez. The Shell-West watershed lies both within the City limits and in the County.

Substantial creeks within the Study Area include Grayson Creek, Vine Hill, and Alhambra Creek drainages.

Grayson Creek is a perennial stream with some intermittently flowing tributaries, which drains much of the valley area of Pleasant Hill, as well as an area at the southernmost Martinez city limits.

Vine Hill Drainage Basin is an intermittent stream that drains roughly five to seven square miles of generally low rolling landscape between Martinez Ridge and Interstate 680.

Alhambra Creek is the most critical hydrologic system in the Martinez area. An intermittent stream draining 16 square miles and passing through urban areas of Martinez, it possesses greatest flood risk. Alhambra Creek is considered a flash drainage basin characterized by a rapid rise in flood peaks and rapid recessions. In addition, the section of the channel north of Main Street is influenced by tidal action. Alhambra Creek has received increasing amounts of surface flow runoff over the years with the rise in impervious surfaces in its urban reaches. Impervious surfaces such as concrete and asphalt prevent absorption of runoff and, in addition to swelling the flow within the creek channel itself, excessive runoff can lead to overland sheet flow within the basin. The flooding of Downtown Martinez has been a frequent winter occurrence.

The Study Area has had a history of flooding since its founding in 1849, with the most recent major flood events occurring in the winter of 1997-98. As shown on Figure 4.9-3, portions of the Study Area along creeks and drainages are subject to 100 year flood events. Additionally, Downtown Martinez is built in the floodplain of Alhambra Creek, and falls within the 100-year flood plain established by FEMA). Projects completed in 2001-2002 worked to reduce the frequency of flooding in the Downtown area. These projects widened and realigned a section of the Alhambra Creek, restored floodplains, and provided overflow and wetland areas to accommodate higher peak flows. Before this work took place, flooding frequency was estimated to be every two to seven years. With these improvements, flooding may occur about every 10 years. According to the 2002 report issued by the California Floodplain Management Task Force, the chance of a 100-year flood during a 30-year mortgage is calculated at 26 percent.

Sea Level Rise

The San Francisco Bay is vulnerable to a range of natural hazards, including storms, extreme high tides, and rising sea levels resulting from global climate change. Flooding already poses a threat to communities along the Bay and there is compelling evidence that these risks will increase in the future. As temperatures rise globally, sea levels are rising mainly because ocean water expands as it warms, and water from melting of major stores of land ice and glaciers flow into the ocean. In the past century, average global sea level has increased by seven to eight inches. Sea level at the San Francisco tide gauge has risen by about seven inches since 1900.

Rising seas put new areas at risk of flooding and increase the likelihood and intensity of floods in areas that are already at risk. The State's *Sea Level Rise Guidance Document* (2018) projects a "likely" (66 percent probability) increase in sea level at the San Francisco tide gauge of 10 inches by 2040. By the end of the century, sea levels are likely to rise by 2.4 feet under a low emissions scenario

Representative Concentration Pathways (RCP 2.6) and 3.4 feet under a high emissions scenario (RCP 8.5). Flooding will be more severe when combined with storm events.

The City of Martinez contains future high tide areas with six feet of sea level rise or areas within the likely end of century 50-year storm event. These areas are almost entirely located north of the railroad line. Existing uses in this area include industrial and manufacturing uses, the Martinez Regional Shoreline, the Martinez Waterfront Park, the John Muir Amphitheatre, and marshland.

In 2014, the Capital Corridor Joint Powers Authority published the Sea Level Rise Vulnerability Assessment which identifies various types of vulnerabilities (physical, functional, governance, and information) for different assets in six focus areas along the Capitol Corridor route through a process of Geographic Information Systems (GIS) analysis and consulting with various asset managers. The focus area for the City of Martinez which was studied in the Assessment was the Martinez Amtrak station, which is located directly south of the Martinez Regional Shoreline Park. According to the Assessment, permanent inundation becomes a serious risk for the station and the tracks in Martinez starting at four feet, or 48 inches, of sea level rise. Temporary flooding of four feet of water above the mean higher high water (MHHW) is expected to occur with a 100-year extreme storm tide level with no sea level rise and could also occur with a 50-year extreme storm tide level with six inches of sea level rise. The rail bridge crossing Alhambra Creek is vulnerable to flooding either due to permanent sea level rise or storm surge during a strong storm.

Tsunami/Seiches

Tsunamis and seiches are standing waves that occur in the ocean or relatively large, enclosed bodies of water (i.e., large lakes and bays) that can follow seismic, landslide, and other events from local sources (California, Oregon, Washington coast) or distant sources (Pacific Rim, South American Coast, Alaska/Canadian coast). The Study Area is sufficiently distant from the open ocean and San Francisco Bay to reduce effects from a tsunami. However, a small portion of land along the Martinez shoreline is at risk of inundation from tsunamis that could be generated in the open ocean, San Francisco Bay, or Carquinez Strait. Figure 4.9-4 shows tsunami hazard areas in the Study Area.

STORMWATER QUALITY

Potential hazards to surface water quality include the following nonpoint pollution problems: high turbidity from sediment resulting from erosion of improperly graded construction projects, concentration of nitrates and dissolved solids from agriculture or surfacing septic tank failures, contaminated street and lawn run-off from urban areas, and warm water drainage discharges into cold water streams.

The most critical period for surface water quality is following a rainstorm which produces significant amounts of drainage runoff into streams at low flow, resulting in poor dilution of contaminants in the low flowing stream. Such conditions are most frequent during the fall at the beginning of the rainy season when stream flows are near their lowest annual levels. Besides the greases, oils, pesticides, litter, and organic matter associated with such runoff, heavy metals such as copper, zinc, and cadmium can cause considerable harm to aquatic organisms when introduced to streams in low flow conditions.

Surface water pollution is also caused by erosion. Excessive and improperly managed grading, vegetation removal, quarrying, logging, and agricultural practices all lead to increased erosion of exposed earth and sedimentation of watercourses during rainy periods. In slower moving water bodies these same factors often cause a buildup of siltation, which ultimately reduces the capacity of the water system to percolate and recharge groundwater basins, as well as adversely affecting both aquatic resources and flood control efforts.

303(d) Impaired Water Bodies: Section 303(d) of the Federal Clean Water Act requires states to identify waters that do not meet water quality standards or objectives and, thus, are considered "impaired." Once listed, Section 303(d) mandates prioritization and development of a Total Maximum Daily Load (TMDL). The TMDL is a tool that establishes the allowable loadings or other quantifiable parameters for a waterbody and thereby the basis for the states to establish water quality-based controls. The purpose of TMDLs is to ensure that beneficial uses are restored and that water quality objectives are achieved.

The Study Area has two water bodies listed on the 2018 Section 303(d) list of impaired water bodies. Grayson Creek and the Carquinez Strait are listed as Category 4b and Category 5 segments respectively, which means they are a water segment where standards are not met and a TMDL is required, but not yet completed for at least one of the pollutants being listed for this segment.

Additionally, Category 4B identifies that another regulatory program is expected to address impairment.

- Grayson Creek: The pollutant listed for this segment is trash originating from illegal dumping and urban runoff/storm sewers. The estimated size of the area affected is seven miles.
- The Carquinez Strait: The pollutants listed for this segment include Chlordane, Dichlorodiphenyltrichloroethane (DDT), Dieldrin, Dioxin compounds, Furan Compounds, Invasive Species, Mercury, Polychlorinated biphenyls (PCBs), and Selenium. The estimated size of the area affected is 5,657.31 acres. At least one beneficial use is not supported and a TMDL is needed.

The Contra Costa Clean Water Program (CCCWP) was established in 1991 in response to the federal stormwater regulations. The CCCWP comprises Contra Costa County, its 19 Cities/Towns (including Martinez), and the Contra Costa County Flood Control and Water Conservation District. Contra Costa is within the jurisdiction of two Water Boards – San Francisco Bay Water Board (which includes Martinez), and the Central Valley Water Board.

The eastern portions of the unincorporated Contra Costa County, and the cities of Antioch, Brentwood, and Oakley, are covered under a Permit issued by the Central Valley Water Board. The remaining Contra Costa municipalities are covered under a Permit issued by the San Francisco Bay Water Board. Each local jurisdiction must implement specified activities year-round. They must incorporate stormwater pollution prevention into municipal operations; inspect local businesses and construction sites; enforce prohibitions against non-stormwater discharges entering creeks or storm drains; perform specified public outreach activities; require new developments to manage

runoff pollutants; reduce the quantity of trash, copper, mercury, and PCBs entering creeks and storm drains, and monitor water quality as well as other activities (Contra Costa Clean Water Program, 2022).

This Permit requires implementation of Best Management Practices (BMPs) to reduce the level of pollutants in the stormwater to the maximum extent practicable. Some of the more important requirements are summarized below. Each of the members of the CCCWP are called Permittees in the discussion below:

- The Permittees shall, within their respective jurisdictions, effectively prohibit the discharge of non-stormwater into storm drain systems and watercourses. It shall be prohibited to discharge rubbish, refuse, bark, sawdust, or other solid wastes into surface waters.
- Permittees shall use their planning authorities to include appropriate source control, site design, and stormwater treatment measures in new development and redevelopment projects to address both soluble and insoluble stormwater runoff pollutant discharges and prevent increases in runoff flows from new development and redevelopment projects. This goal is to be accomplished primarily through the implementation of low impact development (LID) techniques. The goal of LID is to reduce runoff and mimic a site's predevelopment hydrology by minimizing disturbed areas and impervious cover and then infiltrating, storing, detaining, evapotranspiring, and/or biotreating the stormwater runoff close to its source. LID employs principles such as preserving and recreating natural landscape features and minimizing imperviousness to create functional and appealing site drainage that treats stormwater as a resource, rather than a waste product. Practices used to adhere to these LID principles include measures such as rain barrels and cisterns, green roofs, permeable pavement, preserving undeveloped open space, and biotreatment through rain gardens, bioretention units, bioswales, and planter/tree boxes.
- Each Permittee shall implement an industrial and commercial site control program at all sites which could reasonably be considered to cause or contribute to pollution of stormwater runoff, with inspections and effective follow-up and enforcement to abate actual or potential pollution sources.
- Permittees shall develop and implement an illicit discharge program that includes an active surveillance component and a centralized complaint collection and follow-up component to prevent illicit discharge into stormwater. Permittees shall maintain a complaint tracking and follow-up data system.
- Each Permittee shall implement a construction site inspection and control program at all construction sites.
- Through outreach programs, each permittee shall increase the knowledge of residents regarding the impacts of stormwater pollution on receiving water and potential solutions to mitigate the problems change, the waste disposal and runoff pollution generation behavior of residents by encouraging implementation of appropriate solutions, and involve various citizens in mitigating the impacts of stormwater pollution.
- Prevent the impairment of urban streams by pesticide-related toxicity.
- Reduce trash loads from municipal stormwater systems 100% by 2023.

- Implement a Total Mercury and Methylmercury control program.

WATER RESOURCES

Water Supplies

SURFACE WATER

Martinez's surface water supply is currently supplied via purchase from the Contra Costa Water District (CCWD). CCWD uses the Sacramento-San Joaquin River Delta and supplementary sources: Rock Slough near Oakley, Old River near Discovery Bay, Middle River on Victoria Island, and Mallard Slough in Bay Point. The City water supply comes from the Contra Costa Canal which terminates in the Martinez Reservoir near the City's water treatment plant. The water is sold to Martinez based on CCWD's rate structure per unit of water delivered. The City has received all of its untreated water supply from CCWD since 1949, and has no other water supply providers. The City owns and operates the Martinez Water Treatment Plant located at 3003 Pacheco Boulevard. The treatment plant has a filtration capacity of 14.7 mgd.

GROUNDWATER

The City currently has no active groundwater well sources. All the City's raw water supply is from surface water provided by the CCWD's Contra Costa Canal. The City has no major groundwater production facilities for water supply, and there are no major groundwater basins underlying the City. The nearest significant groundwater basin is the Ygnacio Valley groundwater basin (Basin 2-6) on the east side of Interstate 680 and Taylor Road.

RECYCLED WATER SUPPLIES

The City does not currently supply any recycled water and there are not currently any recycled water projects planned. Recycled water has the potential to offset some of the treated water demand in the future, although no plans are in place. However, wastewater generated from the water service area is recycled and used outside the water service area boundaries.

4.9.2 REGULATORY SETTING

There are a number of regulatory agencies whose responsibility includes the oversight of the water resources of the state and nation including the Federal Emergency Management Agency, the US Environmental Protection Agency, the State Water Resources Board, and the Regional Water Quality Control Board. The following is a brief overview of the federal, state, and local regulations that are applicable to the proposed project or future projects.

FEDERAL REGULATIONS

Clean Water Act (CWA)

The CWA, initially passed in 1972, regulates the discharge of pollutants into watersheds throughout the nation. Section 402(p) of the act establishes a framework for regulating municipal and industrial stormwater discharges under the National Pollutant Discharge Elimination System (NPDES) Program. Section 402(p) requires that stormwater associated with industrial activity that discharges

either directly to surface waters or indirectly through municipal separate storm sewers must be regulated by an NPDES permit.

The CWA establishes the basic structure for regulating the discharges of pollutants into the waters of the United States and gives the US Environmental Protection Agency (EPA) the authority to implement pollution control programs. The statute's goal is to regulate all discharges into the nation's waters and to restore, maintain, and preserve the integrity of those waters. The CWA sets water quality standards for all contaminants in surface waters and mandates permits for wastewater and stormwater discharges.

The CWA also requires states to establish site-specific water quality standards for navigable bodies of water and regulates other activities that affect water quality, such as dredging and the filling of wetlands. The following CWA sections assist in ensuring water quality for the water of the United States:

CWA Section 208 requires the use of best management practices (BMPs) to control the discharge of pollutants in stormwater during construction CWA Section 303(d) requires the creation of a list of impaired water bodies by states, territories, and authorized tribes; evaluation of lawful activities that may impact impaired water bodies, and preparation of plans to improve the quality of these water bodies. CWA Section 303(d) also establishes TMDLs, which is the maximum amount of a pollutant that a water body can receive and still safely meet water quality standards CWA Section 404 authorizes the US Army Corps of Engineers to require permits that will discharge dredge or fill materials into waters in the US, including wetlands.

In California, the EPA has designated the SWRCB and its nine RWQCBs with the authority to identify beneficial uses and adopt applicable water quality objectives.

The SWRCB is responsible for implementing the Clean Water Act and does so through issuing NPDES permits to cities and counties through regional water quality control boards. Federal regulations allow two permitting options for storm water discharges (individual permits and general permits). The SWRCB elected to adopt a statewide general permit (Water Quality Order No. 2003-0005-DWQ) for small Municipal Separate Storm Sewer Systems (MS4s) covered under the CWA to efficiently regulate numerous storm water discharges under a single permit. The San Francisco RWQCB has issued a large municipality permit to jurisdictions in the San Francisco Bay region, including Martinez as part of the Contra Costa Permittees, (WDR Order R2-2009-0074, NPDES Permit No. CAS612008, 10/14/2009). Permittees must meet the requirements in Provision D of the General Permit, which require the development and implementation of a Storm Water Management Plan (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable. The SWMP must include the following six minimum control measures:

1. Public Education and Outreach on Storm Water Impacts;
2. Public Involvement/Participation;
3. Illicit Discharge Detection and Elimination;

4. Construction Site Storm Water Runoff Control;
5. Post-Construction Storm Water Management in New Development; and
6. Redevelopment and Pollution Prevention/Good Housekeeping for Municipal Operations.

Federal Emergency Management Agency (FEMA)

FEMA operates the National Flood Insurance Program (NFIP). Participants in the NFIP must satisfy certain mandated floodplain management criteria. The National Flood Insurance Act of 1968 has adopted as a desired level of protection, an expectation that developments should be protected from floodwater damage of the Intermediate Regional Flood (IRF). The IRF is defined as a flood that has an average frequency of occurrence on the order of once in 100 years, although such a flood may occur in any given year. Communities are occasionally audited by the California Department of Water Resources to insure the proper implementation of FEMA floodplain management regulations.

Flood Control Act

The Flood Control Act (1917) established survey and cost estimate requirements for flood hazards. All levees and structures constructed per the Act were to be maintained locally but controlled federally. All rights of way necessary for the construction of flood control infrastructure were to be provided to the Federal government at no cost. Federal involvement in the construction of flood control infrastructure, primarily dams and levees, became more pronounced upon passage of the Flood Control Act of 1936.

Flood Disaster Protection Act (FDPA)

The FDPA of 1973 was a response to the shortcomings of the NFIP, which were experienced during the flood season of 1972. The FDPA prohibited Federal assistance, including acquisition, construction, and financial assistance, within delineated floodplains in non-participating NFIP communities. Furthermore, all Federal agencies and/or federally insured and federally regulated lenders must require flood insurance for all acquisitions or developments in designated Special Flood Hazard Areas (SFHAs) in communities that participate in the NFIP.

Improvements, construction, and developments within SFHAs are generally subject to the following standards:

- All new construction and substantial improvements of residential buildings must have the lowest floor (including basement) elevated to or above the base flood elevation (BFE).
- All new construction and substantial improvements of non-residential buildings must either have the lowest floor (including basement) elevated to or above the BFE or dry-flood proofed to the BFE.
- Buildings can be elevated to or above the BFE using fill, or they can be elevated on extended foundation walls or other enclosure walls, on piles, or on columns.

- Extended foundation or other enclosure walls must be designed and constructed to withstand hydrostatic pressure and be constructed with flood-resistant materials and contain openings that will permit the automatic entry and exit of floodwaters. Any enclosed area below the BFE can only be used for the parking of vehicles, building access, or storage.

National Flood Insurance Program (NFIP)

Per the National Flood Insurance Act of 1968, the NFIP has three fundamental purposes: Better indemnify individuals for flood losses through insurance; Reduce future flood damages through State and community floodplain management regulations; and Reduce Federal expenditures for disaster assistance and flood control.

While the Act provided for subsidized flood insurance for existing structures, the provision of flood insurance by FEMA became contingent on the adoption of floodplain regulations at the local level.

National Pollutant Discharge Elimination System (NPDES)

National Pollutant Discharge Elimination System (NPDES) permits are required for discharges to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, oceans, dry stream beds, wetlands, and storm sewers that are tributary to any surface water body. NPDES permits are issued under the Federal Clean Water Act, Title IV, Permits and Licenses, Section 402 (33 USC 466 et seq.)

The RWQCB issues these permits in lieu of direct issuance by the Environmental Protection Agency, subject to review and approval by the EPA Regional Administrator (EPA Region 9). The terms of these NPDES permits implement pertinent provisions of the Federal Clean Water Act and the Act's implementing regulations, including pre-treatment, sludge management, effluent limitations for specific industries, and anti-degradation. In general, the discharge of pollutants is to be eliminated or reduced as much as practicable so as to achieve the Clean Water Act's goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the RWQCB are also Waste Discharge Requirements issued under the authority of the CWA.

These NPDES permits regulate discharges from publicly owned treatment works, industrial discharges, stormwater runoff, dewatering operations, and groundwater cleanup discharges. NPDES permits are issued for five years or less, and therefore must be updated regularly. The rapid and dramatic population and urban growth in the Central Valley Region has caused a significant increase in NPDES permit applications for new waste discharges. To expedite the permit issuance process, the RWQCB has adopted several general NPDES permits, each of which regulates numerous discharges of similar types of wastes. The SWRCB has issued general permits for stormwater runoff from construction sites statewide. Stormwater discharges from industrial and construction activities in the Region can be covered under these general permits, which are administered jointly by the SWRCB and RWQCB.

Rivers and Harbors Appropriation Act of 1899

One of the country's first environmental laws, this Act established a regulatory program to address activities that could affect navigation in Waters of the United States.

Water Pollution Control Act of 1972

The Water Pollution Control Act (WPCA) established a program to regulate activities that result in the discharge of pollutants to waters of the United States

STATE

Assembly Bill 162

This bill requires a general plan's land use element to identify and annually review those areas covered by the general plan that are subject to flooding as identified by flood plain mapping prepared by the Federal Emergency Management Agency (FEMA) or the Department of Water Resources (DWR). The bill also requires, upon the next revision of the housing element, on or after January 1, 2009, the conservation element of the general plan to identify rivers, creeks, streams, flood corridors, riparian habitat, and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management. By imposing new duties on local public officials, the bill creates a State-mandated local program.

This bill also requires, upon the next revision of the housing element, on or after January 1, 2009, the safety element to identify, among other things, information regarding flood hazards and to establish a set of comprehensive goals, policies, and objectives, based on specified information for the protection of the community from, among other things, the unreasonable risks of flooding.

Assembly Bill 70

This bill provides that a city or county may be required to contribute its fair and reasonable share of the property damage caused by a flood to the extent that it has increased the State's exposure to liability for property damage by unreasonably approving, as defined, new development in a previously undeveloped area, as defined, that is protected by a State flood control project, unless the city or county meets specified requirements.

Senate Bill 92

On June 27, 2017, SB 92 became effective and added Sections 6160 and 6161 to the Water Code, requiring owners of State-regulated dams, except those classified as low hazard, to prepare emergency action plans (EAPs) containing inundation map(s) for emergency preparedness. An EAP contains a blueprint for emergency response following an incident involving a dam and details various failure scenarios of a dam and its related critical infrastructure. It provides special notification procedures. Dam owners must submit EAPs to the Governor's Office of Emergency Services (Cal OES) for approval by deadlines that are based on the dam's downstream hazard classification. The EAPs, including the inundation map(s), are to be updated every ten years, but if relevant circumstances change, then the update must be made sooner. SB 92 provides the Department of Water Resources with enforcement tools, including fines and operational restrictions for failure to comply.

California Fish and Wildlife Code

The California Department of Fish and Wildlife (CDFW) protects streams, water bodies, and riparian corridors through the streambed alteration agreement process under Section 1600 to 1616 of the California Fish and Game Code. The California Fish and Game Code establishes that “an entity may not substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river stream, or lake” (Fish and Game Code Section 1602(a)) without notifying the CDFW, incorporating necessary mitigation and obtaining a streambed alteration agreement. The CDFW’s jurisdiction extends to the top of banks and often includes the outer edge of riparian vegetation canopy cover.

California Code of Regulations

California Code of Regulations (CCR) Title 22, Chapter 15, Article 20 requires all public water systems to prepare a Consumer Confidence Report for distribution to its customers and to the Department of Health Services. The Consumer Confidence Report provides information regarding the quality of potable water provided by the water system. It includes information on the sources of the water, any detected contaminants in the water, the maximum contaminants levels set by regulation, violations and actions taken to correct them, and opportunities for public participation in decisions that may affect the quality of the water provided.

CA Government Code

The Senate and Assembly bills identified above have resulted in various changes and additions to the California Government Code. Key sections related to the above referenced bills are identified below.

Section 65584.04

Any land having inadequate flood protection, as determined by FEMA or DWR, must be excluded from land identified as suitable for urban development within the planning area.

Section 8589.4

California Government Code §8589.4, commonly referred to as the Potential Flooding-Dam Inundation Act, requires owners of dams to prepare maps showing potential inundation areas in the event of dam failure. A dam failure inundation zone is different from a flood hazard zone under the National Flood Insurance Program (NFIP). NFIP flood zones are areas along streams or coasts where storm flooding is possible from a “100-year flood.” In contrast, a dam failure inundation zone is the area downstream from a dam that could be flooded in the event of dam failure due to an earthquake or other catastrophe. Dam failure inundation maps are reviewed and approved by the California Office of Emergency Services (OES). Sellers of real estate within inundation zones are required to disclose this information to prospective buyers.

California Department of Health Services

The Department of Health Services, Division of Drinking Water and Environmental Management, oversees the Drinking Water Program. The Drinking Water Program regulates public water systems and certifies drinking water treatment and distribution operators. It provides support for small water systems and for improving their technical, managerial, and financial capacity. It provides subsidized funding for water system improvements under the State Revolving Fund (“SRF”) and Proposition 50 programs. The Drinking Water Program also oversees water recycling projects, permits water treatment devices, supports and promotes water system security, and oversees the Drinking Water Treatment and Research Fund for methyltertbutylether (MTBE) and other oxygenates.

California Water Code

California’s primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants the SWRCB and each of the RWQCBs power to protect water quality, and is the primary vehicle for implementation of California’s responsibilities under the Federal Clean Water Act. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a water quality control plan (Basin Plan) for its region the regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

The Water Code Section 13260 requires all dischargers of waste that may affect water quality in waters of the state to prepare and provide a water quality discharge report to the RWQCB. Section 13260a-c is as follows:

(a) Each of the following persons shall file with the appropriate regional board a report of the discharge, containing the information that may be required by the regional board:

(1) A person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than into a community sewer system.

(2) A person who is a citizen, domiciliary, or political agency or entity of this state discharging waste, or proposing to discharge waste, outside the boundaries of the state in a manner that could affect the quality of the waters of the state within any region.

(3) A person operating, or proposing to construct, an injection well.

(b) No report of waste discharge need be filed pursuant to subdivision (a) if the requirement is waived pursuant to Section 13269.

(c) Each person subject to subdivision (a) shall file with the appropriate regional board a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge.

Consumer Confidence Report Requirements

California Code of Regulations (CCR) Title 22, Chapter 15, Article 20 requires all public water systems to prepare a Consumer Confidence Report for distribution to its customers and to the Department of Health Services. The Consumer Confidence Report provides information regarding the quality of potable water provided by the water system. It includes information on the sources of the water, any detected contaminants in the water, the maximum contaminant levels set by regulation, violations and actions taken to correct them, and opportunities for public participation in decisions that may affect the quality of the water provided.

Senate Bill (SB) 610 and Assembly Bill (AB) 901

The State Legislature passed SB 610 and AB 901 in 2001. Both measures modified the Urban Water Management Planning Act.

SB 610 requires additional information in an urban water management plan if groundwater is identified as a source of water available to an urban water supplier. It also requires that the plan include a description of all water supply projects and programs that may be undertaken to meet total projected water use. SB 610 requires a city or county that determines a project is subject to CEQA to identify any public water system that may supply water to the project and to request identified public water systems to prepare a specified water supply assessment. The assessment must include, among other information, an identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and water received in prior years pursuant to these entitlements, rights, and contracts.

AB 901 requires an urban water management plan to include information, to the extent practicable, relating to the quality of existing sources of water available to an urban water supplier over given time periods. AB 901 also requires information on the manner in which water quality affects water management strategies and supply reliability. The bill requires a plan to describe plans to supplement a water source that may not be available at a consistent level of use, to the extent practicable. Additional findings and declarations relating to water quality are required.

Senate Bill (SB) 221

SB 221 adds Government Code Section 66455.3, requiring that the local water agency be sent a copy of any proposed residential subdivision of more than 500 dwelling units within five days of the subdivision application being accepted as complete for processing by the city or county. It also adds Government Code Section 66473.7, establishing detailed requirements for establishing whether a “sufficient water supply” exists to support any proposed residential subdivisions of more than 500 dwellings, including any such subdivision involving a development agreement. When approving a qualifying subdivision tentative map, the city or county must include a condition requiring availability of a sufficient water supply. The applicable public water system must provide proof of

availability. If there is no public water system, the city or county must undertake the analysis described in Government Code Section 66473.7. The analysis must include consideration of effects on other users of water and groundwater.

State Updated Model Landscape Ordinance

Under AB 1881, the updated Model Landscape Ordinance requires cities and counties to adopt landscape water conservation ordinances by January 31, 2010 or to adopt a different ordinance that is at least as effective in conserving water as the updated Model Ordinance.

Water Quality Control Plan for the Sacramento and San Joaquin River Basins

The Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses, and implementation measures. The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term “water quality standards,” as used in the Federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels of quality that must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the RWQCB and others that are necessary to achieve and maintain the water quality standards.

The RWQCB regulates waste discharges to minimize and control their effects on the quality of the region’s ground and surface water. Permits are issued under a number of programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means. Water quality problems in the region are listed in the Basin Plan, along with the causes, where they are known. For water bodies with quality below the levels necessary to allow all the beneficial uses of the water to be met, plans for improving water quality are included. The Basin Plan reflects, incorporates, and implements applicable portions of a number of national and statewide water quality plans and policies, including the California Water Code and the Clean Water Act.

Water Quality Control Plan for the San Francisco Bay Region

The Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses, and implementation measures. The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term “water quality standards,” as used in the Federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels of quality that must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the RWQCB and others that are necessary to achieve and maintain the water quality standards.

The RWQCB regulates waste discharges to minimize and control their effects on the quality of the region’s ground and surface water. Permits are issued under a number of programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical,

administrative, and legal means. Water quality problems in the region are listed in the Basin Plan, along with the causes, where they are known. For water bodies with quality below the levels necessary to allow all the beneficial uses of the water to be met, plans for improving water quality are included. The Basin Plan reflects, incorporates, and implements applicable portions of a number of national and statewide water quality plans and policies, including the California Water Code and the Clean Water Act.

Urban Water Management Planning Act

The Urban Water Management Planning Act has as its objectives the management of urban water demands and the efficient use of urban water. Under its provisions, every urban water supplier is required to prepare and adopt an urban water management plan. An “urban water supplier” is a public or private water supplier that provides water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. The plan must identify and quantify the existing and planned sources of water available to the supplier, quantify the projected water use for a period of 20 years, and describe the supplier’s water demand management measures. The urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The Department of Water Resources must receive a copy of an adopted urban water management plan.

State Water Resources Control Board Storm Water Strategy

The Storm Water Strategy is founded on the results of the Storm Water Strategic Initiative, which served to direct the State Water Board’s role in storm water resources management and evolve the Storm Water Program by a) developing guiding principles to serve as the foundation of the storm water program, b) identifying issues that support or inhibit the program from aligning with the guiding principles, and c) proposing and prioritizing projects that the Water Boards could implement to address those issues.

The State Water Board staff created a strategy-based document called the Strategy to Optimize Management of Storm Water (STORMS). STORMS includes a program vision, missions, goals, objectives, projects, timelines, and consideration of the most effective integration of project outcomes into the Water Board’s Storm Water Program.

LOCAL

City of Martinez Urban Water Management Plan (2020)

The purpose of the 2020 Urban Water Management Plan (UWMP) is to ensure efficient use of urban water supplies in the city of Martinez and promote conservation. The UWMP discusses not only the availability of water, but also water use, reclamation, and water conservation activities. The UWMP complies with the Urban Water Management Planning Act (UWMP Act) (California Water Code [CWC] Section 10610 et seq.), the Water Conservation Act of 2009 (CWC Section 10608), and the 20x2020 Water Conservation Plan, which are being implemented by the California Department of Water Resources (DWR).

Regional Landscape Water Conservation Ordinance

The Contra Costa Water District and local planning agencies worked together to develop a Regional Landscape Water Conservation Ordinance (Regional Ordinance) to comply with the state mandate (AB 1881). The Regional Ordinance is designed to both meet the State's water conservation goals and to be uncomplicated for planning staff to review and administer. As a result the City of Martinez amended the adopted 1195 Ordinance to include chapter 22.35 to provide for water conservation in landscaping for all new developments.

Contra Costa Clean Water Program

To comply with the Federal Clean Water Act, Contra Costa County, its 19 incorporated Cities and the Contra Costa County Flood Control & Water Conservation District have joined together to form the Contra Costa Clean Water Program (CCCWP). The CCCWP strives to eliminate stormwater pollution through public education, inspection and enforcement activities, and industrial outreach. The Contra Costa Clean Water Program is dedicated to maintaining a healthy environment in Contra Costa's creeks, rivers, the Delta, and the Bay.

Contra Costa County Municipal NPDES Permit Waste Discharge Requirements Order R2-2009-0074 NPDES Permit No. CAS612008

In response to the Federal Clean Water Act, the Contra Costa Clean Water Program regulates waste dischargers under a NPDES Permit administered by the appropriate Regional Water Quality Control Board (RWQCB-2). Specifically, the municipalities are regulated with regard to their jurisdiction and/or maintenance responsibility for municipal storm drain systems and watercourses that they own or operate. The NPDES Permit is concerned primarily with regulating trash, pollutants of concern, and excessive hydrologic runoff which can carry sediment and cause flooding.

Contra Costa Clean Water Program Stormwater C.3 Guidebook

The 6th Edition of the Contra Costa Clean Water Program Stormwater C.3 Guidebook (2012) helps to ensure that applicable projects comply with the C.3 requirements in the California Regional Water Quality Control Boards' Municipal Regional Permit. The Guidebook provides detailed information about how to prepare a Stormwater Control Plan. In addition, there are two Guidebook Addendums, "Contra Costa Clean Water Program Technical Criteria for Non-LID Facilities" and "Preparing a Stormwater Control Plan for a Small Land Development Project".

Bay Area Stormwater Management Agencies, Start at the Source: Design Guidance Manual for Stormwater Quality Protection

This document is intended for use in the planning and design phases of residential, commercial, institutional, and industrial development and redevelopment. It recognizes that one of the best opportunities to reduce the generation of urban runoff or "nonpoint source pollution" from development is through planning and design. This document provides Best Management Practices including principles and techniques for basic siting and design considerations, construction phase strategies, and post construction property management practices.

City of Martinez Clean Water Program

The City of Martinez Clean Water Program serves to radically reduce or eliminate pollutants from entering the municipal storm drain system. This program is mandated under the 1987 Amendments to the Federal Water Pollution Control Act or the Clean Water Act. Through activities known as best management practices or BMPs, the City conducts municipal maintenance (e.g., street sweeping and catch basin cleaning), public education and outreach, new development and construction controls, illicit discharge control activities, monitoring and special studies, and watershed management activities.

City of Martinez Municipal Code

Floodplain Ordinance (Municipal Code Chapter 15.30)

The City initially adopted a Floodplain Ordinance in 1995, under Chapter 15.30 “Floodplain Management” of the City’s Municipal Code. The Ordinance was further updated in July 2015 to reflect FEMA’s required revisions, and provides additional clarifications to assist residents and City staff to administer the floodplain management measures. It is based on California Model Floodplain Management Ordinance for Coastal Communities developed in 2006 by the State Department of Water Resources to meet the minimum requirements of the National Flood Insurance Program (NFIP). In addition, it will allow for adaptation of future Flood Insurance Studies and FIRM’s for the community.

Buildings and Construction (Municipal Code Title 15)

Title 15, *Buildings and Construction*, adopts various codes with modifications, including, but not limited to, the California Building Code, Residential Code, Green Building Standards Code, and Mechanical Code. Section 15.04.060, *Section J110 Amended—Erosion Control*, amends the California Building Code and contains the City’s “Erosion Control Ordinance.” The Erosion Control Ordinance requires erosion mitigation measures as part of the grading permit, and sets minimum Erosion Control Standards and enforcement mechanisms.

Chapter 15.06, Stormwater Management and Discharge Control

Chapter 15.06, *Stormwater Management and Discharge Control*, is the City’s stormwater/urban runoff management and discharge controls ordinance. Its purpose is to protect and enhance the water quality in the City of Martinez’s watercourses pursuant to, and consistent with the Porter-Cologne Water Quality Control Act (Water Code Section 13000 et seq.) and the Federal Clean Water Act (33 U.S.C. Section 1251 et seq.). It also carries out the conditions in the City’s NPDES permit that require implementation of appropriate source control and site design measures and stormwater treatment measures for development projects.

San Francisco Bay Region Municipal Regional Stormwater NPDES Permit Order No. R2-2019-0004 NPDES Permit No. CAS612008

In response to the Federal Clean Water Act, the Contra Costa Clean Water Program regulates waste dischargers under a NPDES Permit administered by the San Francisco RWQCB (Region 2). Specifically, the municipalities are regulated with regard to their jurisdiction over and/or maintenance

responsibility for municipal storm drain systems and watercourses that they own or operate. The NPDES Permit is concerned primarily with regulating trash, pollutants of concern, and excessive hydrologic runoff which can carry sediment and cause flooding.

4.9.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on the environment associated with hydrology and water quality if it will:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- 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 offsite;
 - 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.
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

IMPACTS AND MITIGATION MEASURES

Impact 4.9-1: General Plan implementation could violate water quality standards or waste discharge requirements or otherwise substantially degrade water quality or obstruct implementation of a water quality control plan (Less than Significant)

Construction-Related Water Quality Impacts

No specific development projects are proposed or would be approved as part of the General Plan Update; however development and growth consistent with the proposed General Plan Update Land Use Map is anticipated to result in future development projects throughout the Study Area. Grading, excavation, removal of vegetation cover, and loading activities associated with future construction activities could temporarily increase runoff, erosion, and sedimentation. Construction activities also

could result in soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas.

As required by the Clean Water Act, each subsequent development project or improvement project will require an approved Storm Water Pollution Prevention Plan (SWPPP) that includes best management practices for grading, and preservation of topsoil. A SWPPP is not required if the project will disturb less than one acre. SWPPPs are designed to control storm water quality degradation to the extent practicable using best management practices during and after construction.

Future development project applicants must submit the SWPPP with a Notice of Intent to the RWQCB to obtain a General Permit. The RWQCB is an agency responsible for reviewing the SWPPP with the Notice of Intent, prior to issuance of a General Permit for the discharge of storm water during construction activities. The RWQCB accepts General Permit applications (with the SWPPP and Notice of Intent) after specific projects have been approved by the lead agency. The lead agency for each specific project that is larger than one acre is required to obtain a General Permit for discharge of storm water during construction activities prior to commencing construction (per the Clean Water Act).

Additionally, as described in the Regulatory Setting, the City of Martinez Municipal Code Title 15 (Buildings and Construction), adopts various codes with modifications, including, but not limited to, the California Building Code, Residential Code, Green Building Standards Code, and Mechanical Code. Section 15.04.060, contains the City's Erosion Control Ordinance. The Erosion Control Ordinance requires erosion measures as part of the grading permit, and sets minimum Erosion Control Standards and enforcement mechanisms. Additionally, Chapter 15.06, Stormwater Management and Discharge Control, is the City's stormwater/urban runoff management and discharge controls ordinance. Its purpose is to protect and enhance the water quality in the City of Martinez's watercourses pursuant to, and consistent with the Porter-Cologne Water Quality Control Act (Water Code Section 13000 et seq.) and the Federal Clean Water Act (33 U.S.C. Section 1251 et seq.). It also carries out the conditions in the City's NPDES permit that require implementation of appropriate source control and site design measures and stormwater treatment measures for development projects.

The General Plan sets policies and implementation measures for build-out of the City, but it does not envision or authorize any specific development project. Because of this, the site-specific details of potential future development projects are currently unknown and analysis of potential impacts of such projects is not feasible and would be speculative. However, each future project must include detailed project specific drainage plans that control storm water runoff and erosion, both during and after construction, and would be required to adhere to Municipal Code standards adopted for erosion control and stormwater/urban runoff management. In addition, the RWQCB will require a project specific SWPPP to be prepared for each future project that disturbs an area one acre or larger. The SWPPPs will include project specific best management measures that are designed to control drainage and erosion.

New Development-Related Water Quality Impacts

New development under the proposed General Plan Update could introduce constituents into the storm water that are typically associated with urban runoff. These constituents include sediments, petroleum hydrocarbons, pesticides, fertilizers, and heavy metals such as lead, zinc, and copper. These pollutants tend to build up during the dry months of the year. Precipitation during the early portion of the wet season (generally from November to April) washes away most of these pollutants, resulting in higher pollutant concentrations in the initial wet weather runoff. This initial runoff is referred to as the “first flush” of storm events. Subsequent periods of rain would result in less concentrated pollutant levels in the runoff.

The amount and type of runoff generated by the various future projects could be greater than under existing conditions, due to increases in impervious surfaces. There could be a corresponding increase in urban runoff pollutants and first flush roadway contaminants, as well as an increase in nutrients and other chemicals from landscaped areas. These constituents would result in water quality impacts to onsite and offsite drainage flows to area waterways.

NPDES permits are required for discharges to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, oceans, dry stream beds, wetlands, and storm sewers that are tributary to any surface water body. NPDES permits are issued under the Federal Clean Water Act, Title IV, Permits and Licenses, Section 402 (33 USC 466 et seq.). The City requires all development projects subject to NPDES requirements to obtain the appropriate permits prior to development.

The City of Martinez Clean Water Program serves to reduce or eliminate pollutants from entering the municipal storm drain system. Through activities known as BMPs, the City conducts municipal maintenance (e.g., street sweeping and catch basin cleaning), public education and outreach, new development and construction controls, illicit discharge control activities, monitoring and special studies, and watershed management activities.

Future development would be required to be consistent with the proposed General Plan Update and the General Plan Land Use Map. The implementation of the policies contained in the Open Space and Conservation, and Land Use elements, as well as compliance with the NPDES program requirements, as described above, are intended to ensure that development in the Martinez Study Area protects drainage patterns and reduces the potential for polluted runoff throughout the Study Area.

The City of Martinez has developed the General Plan Update to enhance storm drainage, infiltration, and funding for improvement features, which will reduce on-and-offsite runoff impacts, while decreasing polluted runoff. The policies identified include numerous requirements that would reduce the potential for implementation of the General Plan Update to result in increased impacts to stormwater drainage systems, or provide substantial additional sources of polluted runoff. Specifically, Policy OSC-P-9.1 calls for the protection and improvement of water quality in all of Martinez’s watersheds, creeks, and water bodies. Policy OSC-P-9.2 requires the City to enforce federal, state and local mandates regarding water quality such as the National Pollutant Discharge

Elimination System (NPDES), and Policy LU-I-3.1c requires development plans to include urban water runoff plans that protect adjacent waterways.

Water Quality Impacts from Discharges to 303(d) Listed Water Bodies

Section 303(d) of the federal Clean Water Act requires States to identify waters that do not meet water quality standards or objectives and thus, are considered "impaired." Once listed, Section 303(d) mandates prioritization and development of a Total Maximum Daily Load (TMDL). The TMDL is a tool that establishes the allowable loadings or other quantifiable parameters for a waterbody and thereby the basis for the States to establish water quality-based controls. The purpose of TMDLs is to ensure that beneficial uses are restored and that water quality objectives are achieved.

The Study Area has two water bodies listed on the 2018 Section 303(d) list of impaired water bodies. Grayson Creek and the Carquinez Strait are listed as Category 4b and Category 5 segments respectively, which means they are a water segment where standards are not met and a TMDL is required, but not yet completed for at least one of the pollutants being listed for this segment. Additionally, Category 4B identifies that another regulatory program is expected to address impairment.

- Grayson Creek: The pollutant listed for this segment is trash originating from illegal dumping and urban runoff/storm sewers. The estimated size of the area affected is seven miles.
- The Carquinez Strait: The pollutants listed for this segment include Chlordane, Dichlorodiphenyltrichloroethane (DDT), Dieldrin, Dioxin compounds, Furan Compounds, Invasive Species, Mercury, Polychlorinated biphenyls (PCBs), and Selenium. The estimated size of the area affected is 5,657.31 Acres. At least one beneficial use is not supported and a TMDL is needed.

As described previously, the CCCWP was established in 1991 in response to the federal stormwater regulations. The CCCWP comprises Contra Costa County, its 19 cities/towns (including Martinez), and the Contra Costa County Flood Control and Water Conservation District.

This Order requires implementation of BMPs to reduce the level of pollutants in stormwater to the maximum extent practicable. Some of the more notable requirements are summarized below. Each of the members of the CCCWP are called permittees in the discussion below:

- The Permittees shall, within their respective jurisdictions, effectively prohibit the discharge of non-stormwater into storm drain systems and watercourses. It shall be prohibited to discharge rubbish, refuse, bark, sawdust, or other solid wastes into surface waters.
- Permittees shall use their planning authorities to include appropriate source control, site design, and stormwater treatment measures in new development and redevelopment projects to address both soluble and insoluble stormwater runoff pollutant discharges and prevent increases in runoff flows from new development and redevelopment projects. This goal is to be accomplished primarily through the implementation of low impact development (LID) techniques. The goal of LID is to reduce runoff and mimic a site's

predevelopment hydrology by minimizing disturbed areas and impervious cover and then infiltrating, storing, detaining, evapotranspiring, and/or biotreating the stormwater runoff close to its source. LID employs principles such as preserving and recreating natural landscape features and minimizing imperviousness to create functional and appealing site drainage that treats stormwater as a resource, rather than a waste product. Practices used to adhere to these LID principles include measures such as rain barrels and cisterns, green roofs, permeable pavement, preserving undeveloped open space, and biotreatment through rain gardens, bioretention units, bioswales, and planter/tree boxes.

- Each Permittee shall implement an industrial and commercial site control program at all sites which could reasonably be considered to cause or contribute to pollution of stormwater runoff, with inspections and effective follow-up and enforcement to abate actual or potential pollution sources.
- Permittees shall develop and implement an illicit discharge program that includes an active surveillance component and a centralized complaint collection and follow-up component to prevent illicit discharge into stormwater. Permittees shall maintain a complaint tracking and follow-up data system.
- Each Permittee shall implement a construction site inspection and control program at all construction sites.
- Through outreach programs, each Permittee shall increase the knowledge of residents regarding the impacts of stormwater pollution on receiving water and potential solutions to mitigate the problems change, the waste disposal and runoff pollution generation behavior of residents by encouraging implementation of appropriate solutions, and involve various citizens in mitigating the impacts of stormwater pollution.
- Prevent the impairment of urban streams by pesticide-related toxicity.
- Reduce trash loads from municipal stormwater systems by 40% by 2015, 70% by 2018, and 100% by 2023.
- Implement a Total Mercury and Methylmercury control program.

Conclusion: Future development projects are required to prepare a detailed project specific drainage plan and a SWPPP that will control storm water runoff and erosion, both during and after construction. If the project involves the discharge of dewatering into surface waters, the project proponent will need to acquire a Dewatering Permit, NPDES permit, and Waste Discharge permit from the RWQCB.

The City of Martinez has developed the General Plan Update to include policies that, when implemented, will reduce storm water pollution from new development and protect and enhance natural storm drainage and water quality features. As described above, under the Regulatory Setting, the City is required to implement a range of measures and procedures when reviewing new development and infrastructure projects. Chapter 15.30 of the City's Municipal Code establishes minimum storm water management requirements and controls and outlines discharges which violate industrial or construction activity NPDES permit. The City regulates stormwater quality and prohibits discharges of pollutants into surface waters unless the discharge is authorized by an NPDES storm water discharge permit. Compliance with existing City construction and stormwater management codes, and submittal of a site-specific drainage study and SWPPP, would reduce

potential impacts related to stormwater quality associated with future development projects consistent with the General Plan Update.

The General Plan Update Open Space and Conservation Element contains Goal OS-G-8, which calls for the protection of water resource systems to maintain natural habitat within the Watershed and enhance the biological value of the City. Goal OSC-G-9 supports the protection of water quality from pollutants and protect the resource. Goals OS-G-8 and OSC-G-9 are supported by a variety of policies and implementation measures including Policy OSC-P-8.1 that ensures the preservation of water resources such as the Alhambra Creek Watershed, wetlands, flood plains, recharge zones, riparian areas, open space and native or natural habitats. OSC-P-9.1 supports the protection and improvement of the water quality of in all of Martinez’s watersheds, creeks, and water bodies, and OSC-P-9.2 enforces Federal State and local mandates regarding water quality such as the NPDES. Implementation measures contained in the Open Space and Conservation element further support water quality and pollution. These include OSC-I-8.1a that requires proposed projects located near watersheds or riparian areas to protect the natural resource consistent with flood management and recharge objectives. Under Policy OSC-I-9.1a all projects in watersheds will be reviewed to limit damage and preserve quality of water insuring proper mitigation measures as part of development. OSC-I-9.1b ensures the management and storage of hazardous materials, especially underground tanks that may leak into existing waterways. OSC-I-9.1c considers the establishment of buffers between development and water resources to prevent contamination of the water from urban pollutants. OSC-I-9.2a supports the Contra Costa Clean Water Program and continues to implement a stormwater clean water program to reduce pollutants according to NPDES mandates. OSC-I-9.2b requires new development to incorporate treatment measures, site design techniques and source controls to address stormwater runoff, pollutant discharges and prevent increase in runoff rates in development projects. OSC-I-9.2c aims to reduce impervious surface areas associated with projects and encourages design that reduces stormwater flow and volume. OSC-I-9.2d ensures the enforcement of development guidelines that protect areas that are susceptible to erosion or other factors that would pose significant impacts to local waterways. OSC-I-9.2f supports the use of vegetated “green” roof to reduce runoff flow rates and volume, absorb and filter pollutants.

Additionally the Land Use Element of the proposed General Plan Update includes several implementation measures that further support water quality and reductions to water quality impacts including: LU-I-3.1a that considers zoning ordinance amendments to require that all new development along a creek or adjacent to a natural watercourse prepare a creek/watercourse preservation and protection plan; LU-I-3.1b considers the formulation of regulations to include required setbacks from the streams, creeks and watercourses to protect the resource, habitat and any recreation value associated therewith; and, LU-I-3.1c requires development plans to include urban water runoff plans that protect adjacent waterways.

The policies identified above include numerous requirements that would, collectively, reduce the potential for General Plan Update implementation to result in increased water quality impacts. In addition, compliance with the Clean Water Act and regulations enforced by the RWQCB would ensure that construction-related impacts to water quality are minimized, and future projects comply with all applicable laws and regulations.

The General Plan Update policies and implementation measures referenced herein and listed below include policies aimed to maximize stormwater quality and infiltration as well as measures to review development projects to identify potential stormwater and drainage impacts and require development to identify potential stormwater and drainage impacts and require development to include measures to ensure that off-site runoff is not increased during rain and flood events. Existing regulatory requirements that manage water quality include requirements to obtain approval from the RWQCB for NPDES permits, other discharge permits, SWPPPs, and to implement BMPs. These regulatory requirements are intended to ensure that water quality does not degrade to levels that would violate water quality standards. Through implementation of the General Plan Update policies and implementation measures listed below, implementation of Municipal Code requirements identified above, compliance with mandatory Federal and State regulations, and compliance with the existing regulations for the Hydrological Region would ensure that impacts to drainage patterns and water quality would be **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Open Space & Conservation Element

Goals

- OS-G-8 Protect water resource systems to maintain the natural habitat within the watershed and enhance the biological value of the City.
- OSC-G-9 Protect high quality water from pollutants and protect the resource.

Policies

- OSC-P-8.1 Water resources such as the Alhambra Creek Watershed, wetlands, flood plains, recharge zones, riparian areas, open space and native or natural habitat should be preserved.
- OSC-P-9.1 Protect and improve the quality of water in all of Martinez's watersheds, creeks, and water bodies.
- OSC-P-9.2 Enforce federal, state and local mandates regarding water quality such as the National Pollutant Discharge Elimination System (NPDES).

Implementation Measures

- OSC-I-8.1a Require proposed projects located near watersheds or riparian areas to protect the natural resource consistent with flood management and recharge objectives.
- OSC-I-8.1b Consider completion and adoption of an Alhambra Creek Watershed Management Plan
- OSC-I-9.1a Review all projects in watersheds to limit damage and preserve water quality by requiring appropriate mitigation measures as part of development.

4.9 HYDROLOGY AND WATER QUALITY

- OSC-I-9.1b Manage storage of hazardous materials, especially underground tanks that may leak into existing waterways, to prevent pollution.
- OSC-I-9.1c Consider the establishment of buffers between development and water resources to prevent contamination of the water from urban pollutants.
- OSC-I-9.2a Support the Contra Costa Clean Water Program and continue to implement a stormwater clean water program to reduce pollutants according to NPDES mandates.
- OSC-I-9.2b Require new development to incorporate treatment measures, site design techniques, and source controls to address stormwater runoff pollutant discharges and prevent increase in runoff rates in development projects.
- OSC-I-9.2c Reduce impervious surface areas associated with projects and encourage design that reduces stormwater flow and volume.
- OSC-I-9.2d Enforce development guidelines that protect areas susceptible to erosion or other factors that would pose significant impacts to local waterways.
- OSC-I-9.2e Encourage the use of pest-resistant and drought-tolerant landscape design and features, and promote the use of design that incorporates stormwater detention and retention in development projects.
- OSC-I-9.2f Support the use of vegetated “green” roofs to reduce runoff flow rates and volume, absorb and filter pollutants, supply green habitat and nesting areas, and help lower urban heat island effect.
- OSC-I-9.2g Continue to strengthen the City’s Water Conservation in Landscape Ordinance, and update the ordinance when necessary.
- OSC-I-9.2h When appropriate utilize the Bay Friendly Landscape Guidelines in order to reduce water consumption.
- OSC-I-9.2i Support the efforts of Contra Costa County Sanitation District with respect to their reclaimed water management project.
- OSC-I-9.2j Promote reclamation and reuse of wastewater for irrigation and to recharge aquifers.

Land Use Element

Implementation Measures

- LU-I-3.1a Consider zoning ordinance amendments to require all new development along a creek or adjacent to a natural watercourse to prepare a creek/watercourse preservation and protection plan.
- LU-I-3.1b Consider the formulation of regulations to include required setbacks from the streams, creeks, and watercourses to protect the resource, habitat, and any recreation value associated therewith.

LU-I-3.1c Require development plans to include urban water runoff plans that protect adjacent waterways.

Impact 4.9-2: General Plan implementation could result in the depletion of groundwater supplies, interfere substantially with groundwater recharge or conflict with a groundwater management plan (Less than Significant)

The City has no major groundwater production facilities for water supply, and there are no major groundwater basins underlying the City. The nearest significant groundwater basin is the Ygnacio Valley groundwater basin (Basin 2-6) on the east side of Interstate 680 and Taylor Road. Water supplied to the city by the CCWD primarily comes from surface water sources.

Future development projects in the Study Area would result in new impervious surfaces and could reduce rainwater infiltration and groundwater recharge in those areas. Infiltration rates vary depending on the overlying soil types. In general, sandy soils have higher infiltration rates and can contribute to significant amounts of ground water recharge; clay soils tend to have lower percolation potential; and impervious surfaces such as pavement significantly reduce infiltration capacity and increase surface water runoff. Projects located in urban areas would have less of an impact than projects involving the conversion of open lands and spaces. The City evaluates individual projects as they are proposed to ensure that they would not result in a significant interference with recharge.

The City of Martinez has developed the General Plan Update to include goals, policies, and implementation measures that, will reduce the risk of groundwater supply depletion, while encouraging groundwater recharge. For example, Goal OSC-G-11 to preserve and enhance the quality of surface and groundwater resources is supported by various policies and implementation measures including OSC-P-10.2 that regulates overgrazing, clearing, burning, and other activities which could reduce vegetation cover within the Alhambra Creek Drainage Basin, and prohibits (unless absolutely necessary), the construction of impermeable surfaces over permeable soil and geologic areas or the removal of permeable soils by extensive grading and scraping practices, while OSC-P-10.7 aims to enhance watersheds and aquifer recharge areas, as funds become available.

Future development would be required to be consistent with the proposed General Plan Update and the General Plan Land Use Map. The implementation of the policies contained in the Open Space and Conservation Element listed below, are intended to ensure that development in the Martinez Study Area protects local groundwater resources through a continued effort to reduce water use, while also reducing impermeable surfaces throughout the Study Area. Additionally, the City does not anticipate increased groundwater consumption, and is committed to serving existing and future development through its surface water resources. Implementation of the following General Plan policies, combined with the City continuing to obtain surface water, would ensure that the General Plan Update would have a **less than significant** impact relative to this environmental topic.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Open Space & Conservation Element

Goals

- OSC-G-11 Preserve and enhance the quality of surface and groundwater resources.
- OSC-G-12 Improve cooperative planning between all agencies within each watershed-wide area.

Policies

- OSC-P-10.2 Regulate overgrazing, clearing, burning, and other activities which could reduce vegetation cover within the Alhambra Creek Drainage Basin. Unless absolutely necessary, prohibit the construction of impermeable surfaces over permeable soil and geologic areas and the removal of permeable soils by extensive grading and scraping practices.
- OSC-P-10.3 All other waterways and their banks should be protected from encroachment and degradation and restored or enhanced visually through appropriate landscaping where deemed necessary. Integration of these into park or trail systems and other common open spaces should be required as a condition for development of adjoining lands.
- OSC-P-10.4 In all hilly areas, grading practices for drainage purposes should restore natural patterns of surface water run-off with respect to volume of flow.
- OSC-P-10.7 Where feasible, enhance watersheds and aquifer recharge areas, as funds become available.
- OSC-P-11.1 Grading, filling and construction activity near watercourses shall be conducted in such a manner as to minimize impacts from increased runoff, erosion, sedimentation, biochemical degradation, or thermal pollution.
- OSC-P-12.1 Support the formation of an inter-jurisdictional group to consider issues that affect watersheds across jurisdictions.

Implementation Measures

- OSC-I-8.1a Require proposed projects located near watersheds or riparian areas to protect the natural resource consistent with flood management and recharge objectives.
- OSC-I-8.1b Consider completion and adoption of an Alhambra Creek Watershed Management Plan.
- OSC-I-9.2c Reduce impervious surface areas associated with projects and encourage design that reduces stormwater flow and volume.
- OSC-I-11.1a Continue to coordinate with Contra Costa County Clean Water Program on implementation of current National Pollutant Discharge Elimination System (NPDES)

regulations and the California Regional Water Quality Control Board for the San Francisco Bay Region Municipal Regional Stormwater Permit requirements, including, but not limited to, the C.3 requirements for new development and redevelopment and the use of permeable surfaces.

OSC-I-11.1b Continue to work in collaboration with the Contra Costa County Flood Control and Water Conservation District to develop and enact best management practices for stormwater management.

OSC-I-11.1c Develop and adopt a Green Infrastructure Plan as required by the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit and submit the framework and plan to the California Regional Water Quality Control Board for the San Francisco Bay Region by the required deadlines.

Impact 4.9-3: General Plan implementation could alter the existing drainage pattern in a manner which would result in substantial erosion, siltation, flooding, impeded flows, or polluted runoff (Less than Significant)

The City is within the jurisdictional boundary of the Regional Board 2 / San Francisco Bay. Under the RWQCB NPDES permit system, all existing and future municipal and industrial discharges to surface water within the city would be subject to regulation. NPDES permits are required for operators of municipal separate storm sewer systems, construction projects, and industrial facilities. These permits contain limits on the amount of pollutants that can be contained in each facility's discharge.

General Plan Update implementation has the potential to impact the Study Area's storm drainage system. The potential impacts would be primarily derived from development in what are now underdeveloped and/or underutilized areas. Construction activities are regulated by the NPDES General Construction Storm Water Permit. Compliance with the storm water permit during construction activities requires the preparation of a SWPPP that contains BMPs to control the discharge of pollutants, including sediment, into local surface water drainages.

In addition to complying with the NPDES programs and Municipal Code stormwater requirements described previously, the General Plan Update contains policies and implementation measures to reduce impacts associated with stormwater and drainage including policies which require new development to demonstrate how storm water runoff will be detained or retained on-site and/or conveyed to the nearest drainage facility as part of the development review process. Specifically Implementation Measure OSC-I-9.2b requires new development to incorporate treatment measures, site design techniques, and source controls to address stormwater runoff pollutant discharges and prevent increases in runoff rates in development projects. Implementation Measure PS-I-6.6a requires as a condition of approval for new development and redevelopment of existing sites, storm water detention or retention facilities (on- or off -site), if necessary, to prevent flooding due to run-off or where existing storm drainage facilities are unable to accommodate increased storm water drainage.

Additionally, the General Plan Update policies and implementation measures require the City to continue to review development projects to identify potential stormwater and drainage impacts and require development to include measures to ensure that off-site runoff is not increased as a during rain and flood events. Specifically Policy PS-P-6.2 requires new developments to be designed to minimize hazards associated with flooding and limit the amount of runoff that contributes to flooding and Policy PS-P-6.6 requires construction of storm drainage facilities and Low Impact Development (LID) techniques for new development. Implementation Measure PS -I-6.1f requires individual development projects located in areas subject to flooding to reduce or alleviate flood hazard conditions through preparation of hydrological studies and incorporation of mitigation measures. Individual development project mitigation would be required to demonstrate, through qualified engineering analyses, that no adverse flooding impacts are created by development on upstream and downstream properties in the project vicinity. Compliance requirements would be consistent with those prescribed in the Municipal Code.

Individual future projects developed after adoption of the General Plan Update could create new impervious surfaces. This would result in an incremental reduction in the amount of natural soil surfaces available for infiltration of rainfall, potentially generating additional runoff during storm events. In addition, the increase in impervious surfaces, along with the increase in surface water runoff, could increase the non-point source discharge of runoff contaminants including sediment. Contributions of sediment to stormwater could degrade the quality of receiving waters. Suspended sediment load in surface runoff could flow into the stormwater drainage systems that discharge into rivers, and channels and ultimately could degrade the water quality of any of these water bodies. Additionally, future projects developed after adoption of the General Plan Update could potentially alter surface drainage patterns as a result of directly altering flow patterns, or placing structures in a floodway, all of which could yield increased amounts of stormwater runoff and result in potential on-site or off-site flooding. The construction activities associated with future projects, such as commercial, residential and industrial developments, as well as road widenings, and other infrastructure projects that convert permeable surfaces or install permanent structures would require stormwater drainage management measures to avoid flooding impacts.

Based upon the programmatic nature of the General Plan Update, development of detailed, site-specific information at the program level is not feasible. As previously discussed, a future project applicant would be required to obtain permits from the Army Corps of Engineers and the Department of Fish and Game if any work is performed within a jurisdictional water feature. Each future development project must also include detailed project specific floodplain and drainage studies that assess the drainage characteristics and flood risks so that an appropriate storm drainage plan can be prepared to control storm water runoff, both during and after construction. The drainage plan will ultimately include project specific best management measures that are designed to allow for natural recharge and infiltration of stormwater. Construction of storm drainage improvements would occur as part of an overall development project and is considered in the environmental impacts associated with project construction and implementation as addressed throughout this EIR.

The City of Martinez has developed the General Plan Update to include goals, policies, and implementation measures that, when implemented, will reduce erosion and siltation from along local waterways. Goal OSC-G-11 aims to preserve and enhance the quality of surface and groundwater resources, and Goal OSC-G-12 improves cooperative planning between all agencies within each watershed-wide area. Goals OSC-G-11 and OSC-G-12 are supported by a variety of policies and implementation measures including OSC-P-2.2 that discourages large scale alterations of the topography to prevent severe erosion and hydrologic hazard through planning and engineering review of soils and hydrology reports. OSC-I-9.2d enforces development guidelines that protect areas that are susceptible to erosion or other factors that would pose significant impacts to local waterways. OSC-I-6.1d continues the incorporation of measures that reduce runoff and control stormwater. OSC-I-9.2b requires new development to incorporate treatment measures, site design techniques, and source controls to address stormwater runoff pollutant discharges, and prevent increase in runoff rates in development projects. OSC-I-9.2f supports the use of green roof to reduce runoff flow rates and volume, absorb and filter pollutants. OSC-P-10.4 requires that all hilly areas, abide by grading practices for drainage purposes that restore natural patterns of surface water runoff with respect to volume of flow. OSC-P-11.1 ensures grading, filling and construction activity near watercourses be conducted in a manner as to minimize impacts from increased runoff, erosion, sedimentation, biochemical degradation, or thermal pollution. OSC-11.1a requires coordination with Contra Costa County Clean Water Program on implementation of current NPDES regulations and the California Regional Water Quality Control Board for the San Francisco Bay Region Municipal Regional Stormwater Permit requirements, including, but not limited to, the C.3 requirements for new development and redevelopment and the use of permeable surfaces. OSC-11.1b continues the collaboration with the Contra Costa County Flood Control and Water Conservation District to develop and enact best management practices for storm water management. OSC-P-11.2 supports efforts to phase out the use of long-lived synthetic compounds, such as pesticides and vehicle anti-freeze, and certain naturally occurring substances which do not biodegrade, and encourages efforts to change manufacturing processes to use biodegradable materials, recycle manufactured products, reuse by-products, and use "green" products. OSC-P-11.3 encourages retailers to stock nontoxic alternatives to hazardous products. OSC-P-11.4 promotes keeping waterways clean and pollution free by eliminating non-stormwater discharges to storm drains, creeks, and the bay. OSC-P.11.5 supports alternatives to impervious surfaces in new development, re-use and/or public improvement projects to reduce urban runoff into drain systems, creeks and other drainages. OSC-I-11.5a claims that development project approval should include the use of vegetated areas to absorb and filter the fertilizers, pesticides and other run off pollutants. OSC-P-12.1 supports the formation of an inter-jurisdictional group to consider issues that affect watersheds across jurisdictions. OCS-I-12.1a supports collaborative work with other jurisdictions, including the creation of an inter-jurisdictional group to coordinate strategies addressing preservation and enhancement of watershed-wide water quality. OCS-I-13.1b continues to implement the Alhambra Creek Enhancement Program as both public CIP projects and through condition of approval places on development adjacent to Alhambra Creek.

The Public Safety Element establishes policies and implementation measures to protect people and development from flood hazards, including flood hazards associated with the alteration of a site in a manner that could result in increased runoff and on-site and off-site flooding. Policy PS-P-7.2

requires new developments to be designed to minimize flooding hazards and to limit the amount of runoff that contributes to flooding. Policy PS-P-7.6 requires construction of storm drainage facilities and Low Impact Development techniques for new development. Implementation Measures PS-I-7.1d and PS-I-7.2b promotes new development to limit impervious coverage to reduce excessive runoff and promote use of permeable paving and surfaces where appropriate. Implementation Measure PS-I-7.1f requires individual development projects to reduce or alleviate flood hazard conditions and to demonstrate that no adverse flooding impacts are created on upstream or downstream properties in the project vicinity.

Future development would be required to be consistent with the proposed General Plan Update. The implementation of the policies contained in the Open Space and Conservation Element, listed above are intended to ensure that development in the Martinez Study Area protects drainage patterns to reduce effects of erosion and siltation throughout the Study Area. The City of Martinez has developed the General Plan Update to enhance natural storm drainage and water quality features, which will reduce water quality impacts. Implementation of General Plan Update policies and implementation measures would ensure that the General Plan Update would have a **less than significant** impact on drainage patterns from increased erosion, siltation, and on-site and off-site flooding, or pollution runoff.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Open Space & Conservation Element

Goals

- OSC-G-10 Reduce flood hazards while enhancing the creekside environment.
- OSC-G-11 Preserve and enhance the quality of surface and groundwater resources.
- OSC-G-12 Improve cooperative planning between all agencies within each watershed-wide area.

Policies

- OSC-P-2.2 Discourage the large-scale alteration of the topography to accommodate incompatible development patterns, and require planning and engineering review of soils and hydrology reports to prevent severe erosion and hydrologic hazards.
- OSC-P-10.1 Support measures that would decrease the likelihood of flooding and/or reduce the amount of damage caused by flooding.
- OSC-P-10.4 In all hilly areas, grading practices for drainage purposes should restore natural patterns of surface water run-off with respect to volume of flow.
- OSC-P-11.1 Grading, filling and construction activity near watercourses shall be conducted in such a manner as to minimize impacts from increased runoff, erosion, sedimentation, biochemical degradation, or thermal pollution.

- OSC-P-11.2 Support efforts to phase out the use of long-lived synthetic compounds, such as pesticides and vehicle anti-freeze, and certain naturally occurring substances which do not biodegrade. Encourage efforts to change manufacturing processes to use biodegradable materials, recycle manufactured products, reuse by-products, and use "green" products.
- OSC-P-11.3 Encourage retailers to stock nontoxic alternatives to hazardous products.
- OSC-P-11.4 Continue to promote keeping our waterways clean and pollution free by eliminating non-stormwater discharges to storm drains, creeks, and the bay.
- OSC-P-11.5 Support alternatives to impervious surfaces in new development, re-use and/or public improvement projects to reduce urban runoff into drain systems, creeks and other drainages.
- OSC-P-12.1 Support the formation of an inter-jurisdictional group to consider issues that affect watersheds across jurisdictions.

Implementation Measures

- OSC-I-6.1d Continue to incorporate measures to reduce runoff and control stormwater.
- OSC-I-9.2b Require new development to incorporate treatment measures, site design techniques, and source controls to address stormwater runoff pollutant discharges and prevent increase in runoff rates in development projects.
- OSC-I-9.2d Enforce development guidelines that protect areas susceptible to erosion or other factors that would pose significant impacts to local waterways.
- OSC-I-9.2f Support the use of vegetated "green" roof to reduce runoff flow rates and volume, absorb and filter pollutants, supply green habitat and nesting areas, and help lower urban heat island effect.
- OSC-I-11.1a Continue to coordinate with Contra Costa County Clean Water Program on implementation of current National Pollutant Discharge Elimination System (NPDES) regulations and the California Regional Water Quality Control Board for the San Francisco Bay Region Municipal Regional Stormwater Permit requirements, including, but not limited to, the C.3 requirements for new development and redevelopment and the use of permeable surfaces.
- OSC-I-11.1b Continue to work in collaboration with the Contra Costa County Flood Control and Water Conservation District to develop and enact best management practices for storm water management.
- OSC-I-11.1c Develop and adopt a Green Infrastructure Plan as required by the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit and submit the framework and

plan to the California Regional Water Quality Control Board for the San Francisco Bay Region by the required deadlines.

OSC-I-11.5a Development project approvals should include the use of vegetated areas to absorb and filter fertilizers, pesticides, and other runoff pollutants.

OCS-I-12.1a Continue to work with other jurisdictions, including through the creation of an inter-jurisdictional group to coordinate strategies addressing preservation and enhancement of watershed-wide water quality.

OCS-I-13.1b Continue to implement the Alhambra Creek Enhancement Program as both public CIP projects and through condition of approval placed on development adjacent to Alhambra Creek.

Public Safety Element

Policies

PS-P-7.2 Design new developments to minimize hazards associated with flooding and limit the amount of runoff that contributes to flooding.

PS-P-7.6 Require construction of storm drainage facilities and Low Impact Development (LID) techniques for new development.

Implementation Measures

PS-I-7.1d Limit the amount of impervious coverage by new development or existing developments during improvements to reduce potential hazards of excessive runoff. Strongly encourage pervious pavement for driveways and other hardscape.

PS-I-7.1e Continue to coordinate with FEMA and other agencies in the evaluation and mitigation of future flooding hazards that may occur as a result of sea level rise.

PS-I-7.1f Require individual development projects located in areas subject to flooding to reduce or alleviate flood hazard conditions through preparation of hydrological studies and incorporation of mitigation measures. Individual development project mitigation shall demonstrate, through qualified engineering analyses, that no adverse flooding impacts are created by development on upstream and downstream properties in the project vicinity. Compliance requirements shall be consistent with those prescribed in the Municipal Code including the preparation of a storm water control plan, and construction requirements set forth in Section 15.30 - Floodplain Management.

PS-I-7.2b When feasible, promote the use of permeable paving or similar improvements in constructing patios, walkways, paths, driveways, and parking areas as a means of increasing natural percolation while reducing impacts to the City's storm drainage system.

- PS-I- 7.2c Require new development to construct necessary infrastructure improvements to support proposed projects and dedicate to the City or include appropriate ongoing maintenance mechanism, as determined appropriate by the review authority.
- PS-I- 7.2d Require new development to maintain drainage infrastructure improvements serving such development.
- PS-I-7.6a As a condition of approval for new development and redevelopment of existing sites, require storm water detention or retention facilities (on- or off -site), if necessary, to prevent flooding due to run-off or where existing storm drainage facilities are unable to accommodate increased storm water drainage.

Impact 4.9-4: General Plan implementation would not release pollutants due to project inundation by flood hazard, tsunami, or seiche (Less than Significant)

Tsunami: A tsunami is a sea wave caused by a submarine earthquake, landslide, or volcanic eruption. Tsunamis can cause catastrophic damage to shallow or exposed shorelines. The Study Area is not immediately adjacent to the open Ocean or San Francisco Bay, which are the most significant water bodies posing a tsunami risk in the region. A portion of the Study Area is, however, along the waterfront of the Carquinez Strait, which feeds to the San Francisco Bay and ultimately to the open Ocean. As such, the waterfront area is at risk of inundation from tsunamis that could be generated in the open Ocean, San Francisco Bay, or Carquinez Strait. The area that is at risk of inundation from tsunamis along the waterfront is mostly mudflats, and is designated open space or parks and recreation. Limited portions of this areas also contain lands designated for Industrial Manufacturing uses, and include refining tank facilities. Recreation and waterfront facilities and uses could be developed in this area and could expose users and employees to potential tsunami impacts, and result in polluted runoff. Areas designated for Industrial uses would generally pose the greatest potential risk for pollution release during a Tsunami event.

Seiches: Seiches are changes or oscillations of water levels within a confined water body. Seiches are caused by fluctuation in the atmosphere, tidal currents or earthquakes. The effect of this phenomenon is a standing wave that would occur when influences by the external causes. The Study Area is located in close proximity to the Carquinez Strait and Suisun Bay (semi-confined water body) that could pose a significant risk from a seiche similar to that of a tsunami threat. Recreation and waterfront facilities and uses in this area and could expose users and employees to potential tsunami impacts, and result in polluted runoff. Areas designated for Industrial uses would generally pose the greatest potential risk for pollution release during a Seiche event.

General Plan Policy PS-P-7.11 requires that unless otherwise mitigated, new structures to be located outside of the tsunamic and seiche inundation zone to the greatest extent feasible.

Flood: The Study Area is subject to flooding problems along the natural creeks and drainages that traverse the area. There are three drainage basins within the Study Area. These include Grayson Creek, Vine Hill, and Alhambra Creek drainage basin.

The Study Area has had a history of flooding, with the most recent major flood events occurring in the winter of 1997-98. Downtown Martinez is built in the floodplain of Alhambra Creek and falls within the 100-year flood plain established by FEMA. Projects completed in 2001-2002 worked to reduce the frequency of flooding in the downtown area. These projects widened and realigned a section of the creek, restored floodplains, and provided overflow and wetland areas to accommodate higher peak flows. Furthermore, the Study Area has substantial flooding areas east of the city limits in the SOI east of interstate 680. The major land uses in this area are Open Space Preservation (OS), and Industrial and Manufacturing (IM). General Plan Policy PS-P-7.1 prohibits new buildings in the 100-year flood zone as shown on the FEMA Flood Insurance Rate Maps (FIRM) unless sufficient mitigation can be provided or the area is removed from the flood zone.

Although existing flood impacts would remain present, the City of Martinez has developed the General Plan Update to include policies that, when implemented, will reduce flood hazard throughout the Study Area. The policies identified below include numerous requirements that would reduce the potential for General Plan Update implementation to result in increased impacts related to flooding and pollution runoff. The implementation of these policies would ensure that implementation of the General Plan Update would have a **less than significant** impact relative to this environmental topic.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Public Safety Element

Goals

PS-G-7 Minimize feasible risks to life and property resulting from flooding and flood induced hazards.

Policies

PS-P-7.1 Prohibit new buildings in the 100-year flood zone as determined by the Federal Emergency Management Agency (FEMA) and as shown on the FEMA Flood Insurance Rate Maps (FIRM) unless sufficient mitigation can be provided or the area is removed from the flood zone.

PS-P-7.2 Design new developments to minimize hazards associated with flooding and limit the amount of runoff that contributes to flooding.

PS-P-7.3 Continue to budget Capital Improvement Funds for flood control improvements as appropriate.

PS-P-7.4 Work with FEMA to periodically update the City's FEMA flood maps.

PS-P-7.5 Use local plans and groups to help identify flooding hazards and mitigation options.

PS-P-7.11 Unless otherwise mitigated, require new structures to be located outside of the tsunamic and seiche inundation zone to the greatest extent feasible.

Implementation Measures

- PS-I-7.1a Enforce the City’s existing flood control ordinance and regulations, amending them as necessary to conform to the National Flood Insurance Program criteria as appropriate.
- PS-I-7.1b Evaluate potential impacts to the flood control system during the environmental review process for new development. Hydrologic studies may be required to help determine potential impacts.
- PS-I-7.1c Facilitate creek restoration throughout the City to help mitigate the effects of flooding.
- PS-I-7.1d Limit the amount of impervious coverage by new development or existing developments during improvements to reduce potential hazards of excessive runoff. Strongly encourage pervious pavement for driveways and other hardscape.
- PS-I-7.1e Continue to coordinate with FEMA and other agencies in the evaluation and mitigation of future flooding hazards that may occur as a result of sea level rise.
- PS-I-7.1f Require individual development projects located in areas subject to flooding to reduce or alleviate flood hazard conditions through preparation of hydrological studies and incorporation of mitigation measures. Individual development project mitigation shall demonstrate, through qualified engineering analyses, that no adverse flooding impacts are created by development on upstream and downstream properties in the project vicinity. Compliance requirements shall be consistent with those prescribed in the Municipal Code, including the preparation of a storm water control plan, and construction requirements set forth in Section 15.30 - Floodplain Management
- PS-I-7.3a Prepare annual budget requests to implement priorities and projects relating to flood protection as appropriate.
- PS-I-7.4a Utilize FEMA’s Cooperating Technical Partners Program to update the City’s Flood Insurance Rate Maps.
- PS-I-7.5a Continue to implement and periodically update the 2018 Local Hazard Mitigation Plan, consistent with the requirements of FEMA.

4.9.4 CUMULATIVE IMPACTS

The cumulative hydrology and water quality impacts are analyzed based on development within the Study Area, applicable watersheds, groundwater basins, and the anticipated development served by facilities under the jurisdiction of Contra Costa County Flood Control and Water Conservation District.

No specific development projects are proposed or would be approved as part of the General Plan Update. Construction of the individual development projects allowed under the land use designations of the proposed General Plan Update has the potential to result in construction-related water quality impacts, impacts to groundwater recharge, and result in flooding, erosion, or siltation

from the alteration of drainage patterns. Further, impacts resulting from potential development of the Study Area would include substantial grading, site preparation, and an increase in urbanized development. Increased development in the County, including the Study Area, would contribute to cumulative water quality impacts.

While some cumulative impacts will occur in the region as individual projects are constructed, the proposed General Plan Update policies and implementation measures, as well as State and Federal regulations, will substantially reduce the project's contribution to impacts. Considering the protection granted by local, State, and Federal agencies and their permit and monitoring requirements, as discussed previously under impacts 4.9-1 through 4.9-4, and with implementation of the policies and implementation measures included within the General Plan Update, the overall cumulative impact would not be significant. As a result, the General Plan Update's incremental contribution to cumulative hydrology impacts would be **less than cumulatively considerable**.

4.9.5 SIGNIFICANT UNAVOIDABLE IMPACTS

Impacts to hydrology and water quality associated with the implementation of the General Plan Update would be **less than significant**. No significant unavoidable hydrology and water quality impacts would occur as a result of the General Plan Update.

4.9.6 REFERENCES

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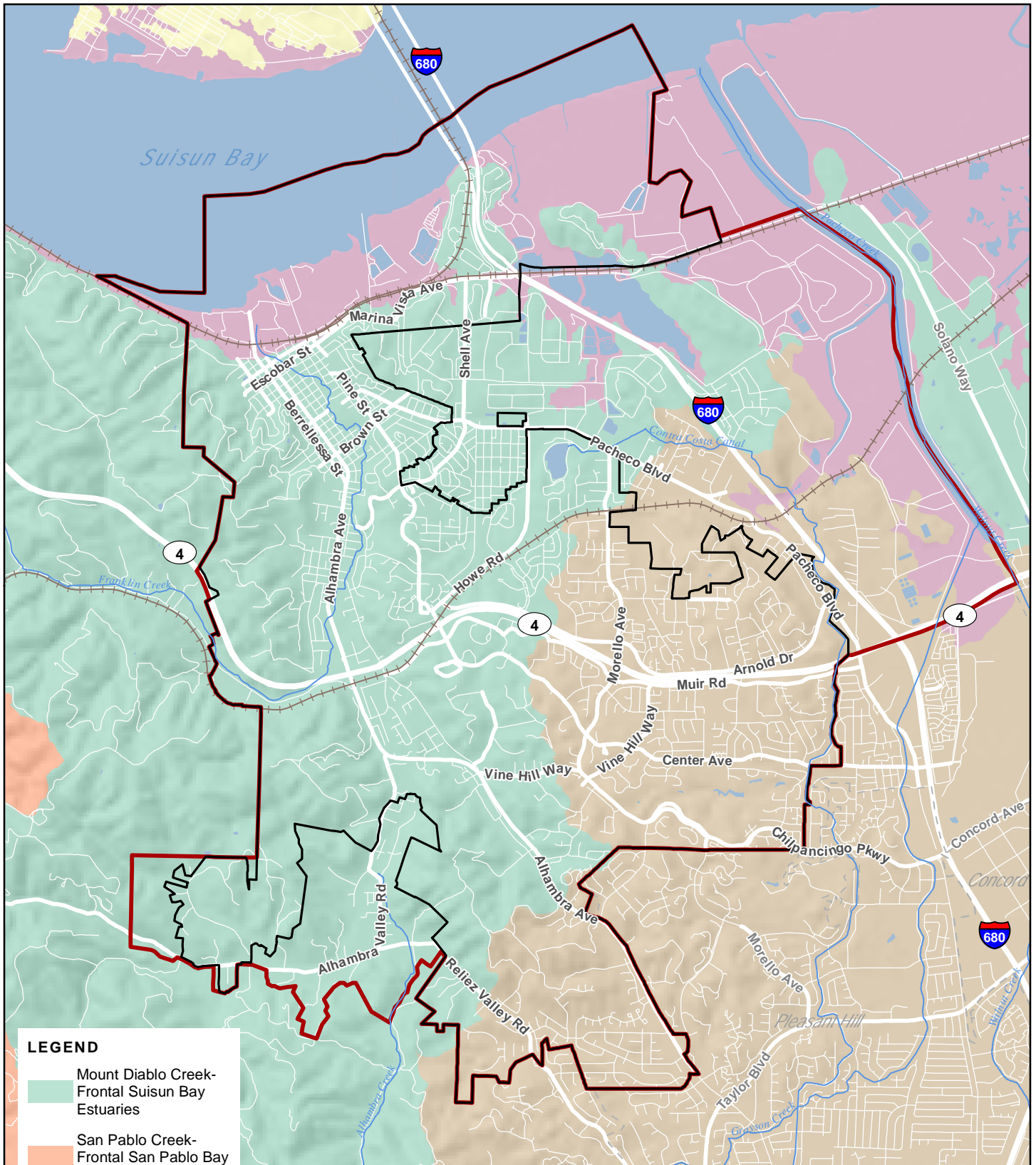
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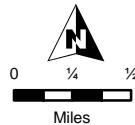


LEGEND

- Mount Diablo Creek-Frontal Suisun Bay Estuaries
- San Pablo Creek-Frontal San Pablo Bay Estuaries
- Suisun Bay
- Walnut Creek-Frontal Suisun Bay Estuaries
- Wooden Valley Creek-Frontal Suisun Bay Estuaries

Planning Boundaries

- Martinez City Limits
- Martinez Sphere of Influence
- Other Incorporated Areas

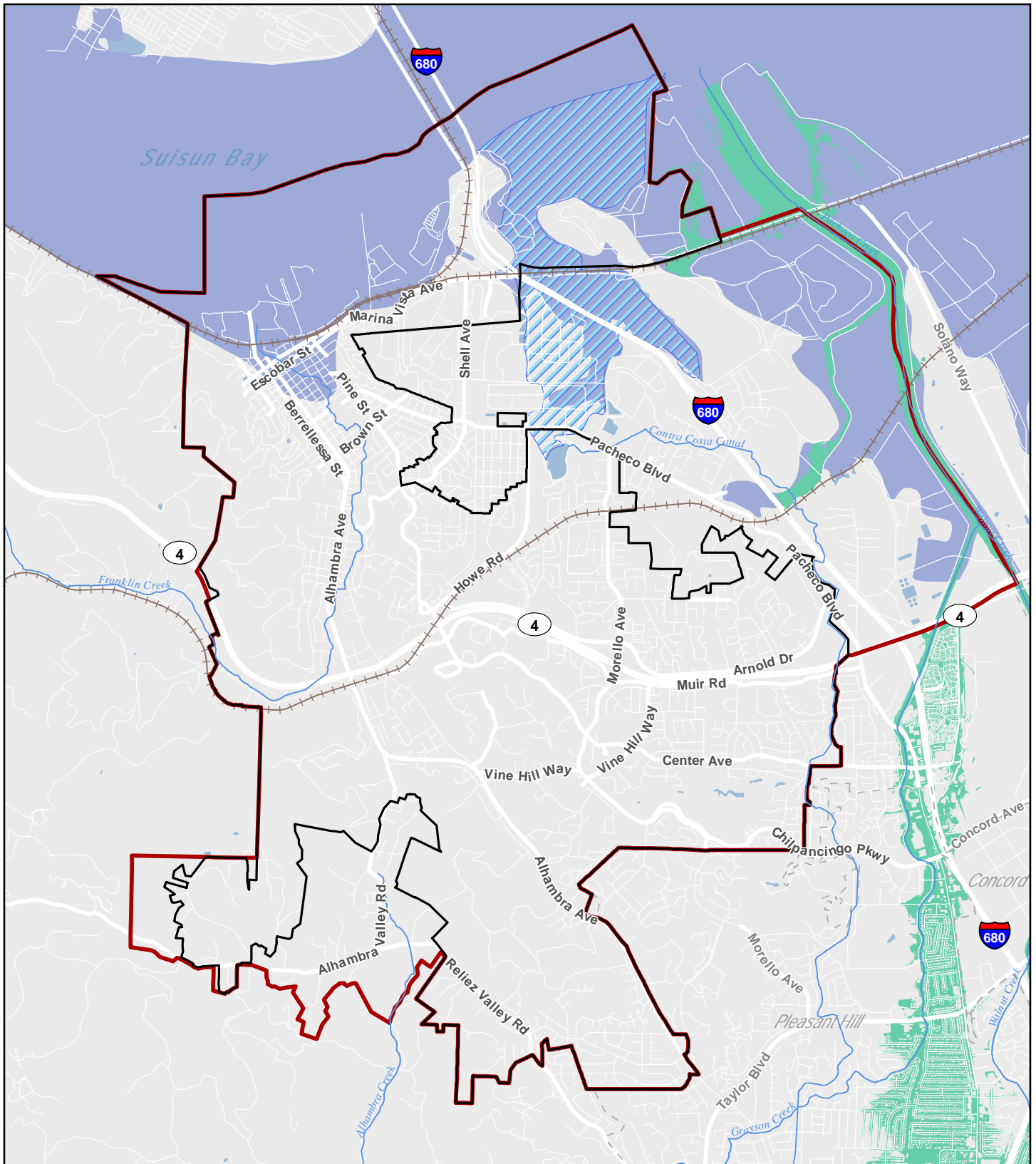


CITY OF MARTINEZ

Figure 4.9-1. Watershed Map

Sources: USGS Watershed Boundary Dataset; California State Geoportals; Contra Costa County. Map date: April 27, 2022.

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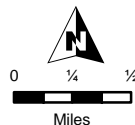


LEGEND

- Lafayette Dam Inundation Area
- Martinez Dam Inundation Area
- New Melones Dam Inundation Area

Planning Boundaries

- Martinez City Limits
- Martinez Sphere of Influence
- Other Incorporated Areas

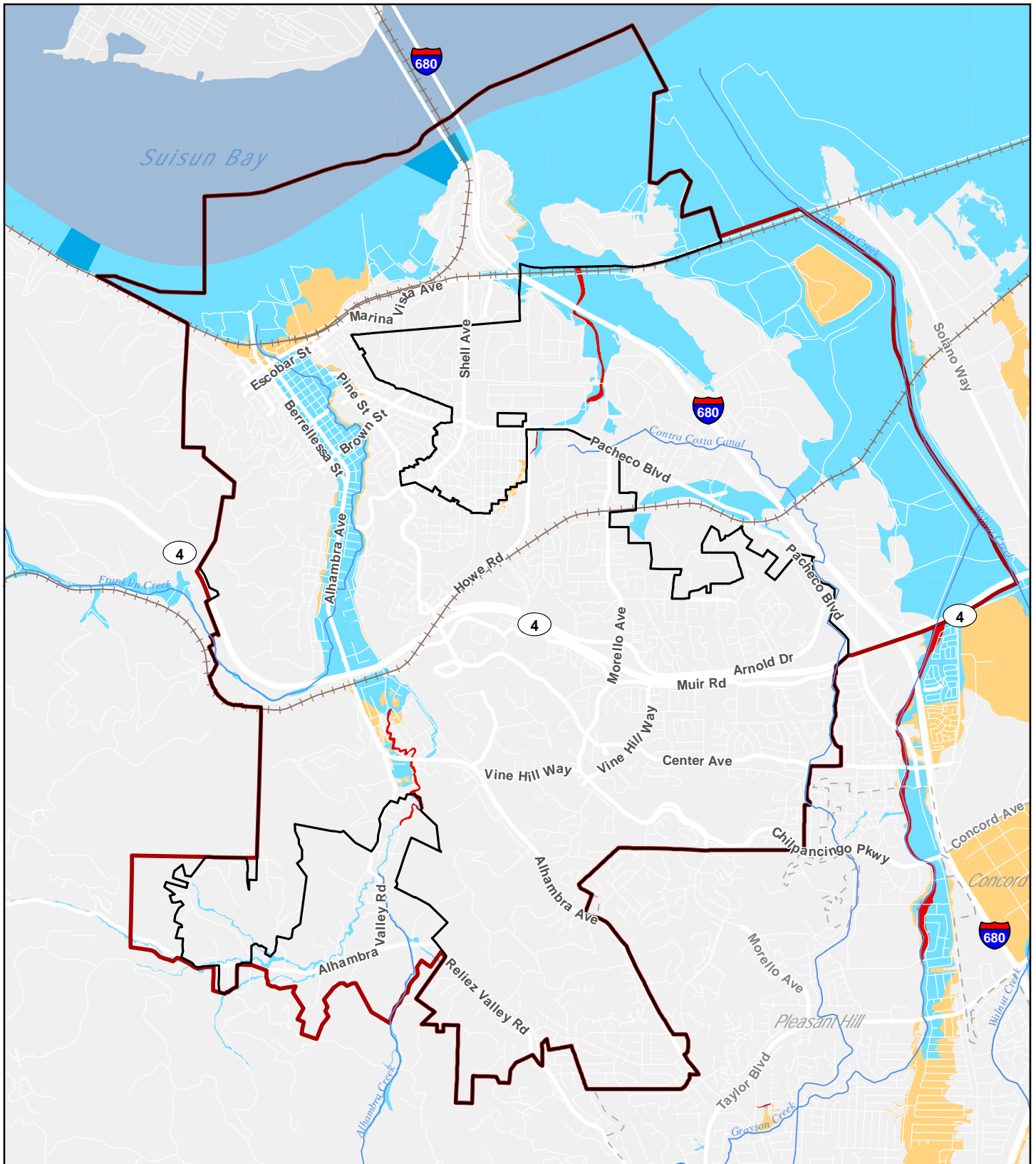


CITY OF MARTINEZ

Figure 4.9-2. Dam Inundation Areas

Sources: California Department of Water Resources; California Department of Emergency Services; California State Geoportal; Contra Costa County. Map date: April 27, 2022.

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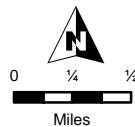


LEGEND

- 100-year Flood Zone
- 100-year Flood Zone with Additional Storm Wave Hazard
- Regulatory Floodway
- 500-year Flood Zone
- Area of Minimal Flood Hazard
- Open Water

Planning Boundaries

- Martinez City Limits
- Martinez Sphere of Influence
- Other Incorporated Areas

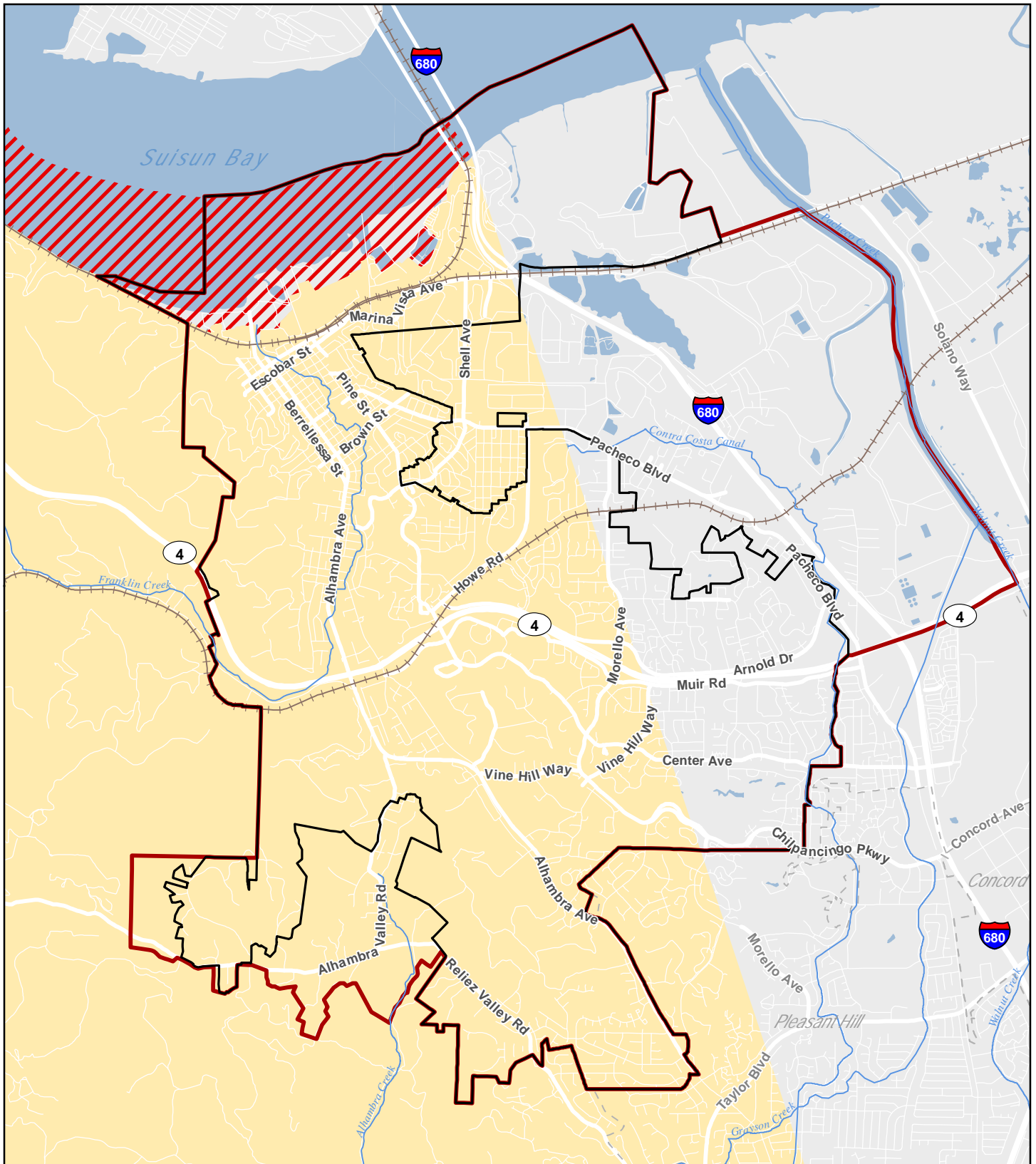


CITY OF MARTINEZ




Figure 4.9-3. FEMA Flood Zone Designations

Sources: FEMA National Flood Hazard Layer, Contra Costa County, February 2022; CalState Geoportals; Contra Costa County. Map date: April 27, 2022.




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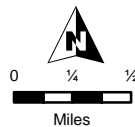


LEGEND

-  Tsunami Hazard Area
-  Outside Hazard Area
-  No Data

Planning Boundaries

-  Martinez City Limits
-  Martinez Sphere of Influence
-  Other Incorporated Areas



CITY OF MARTINEZ

Figure 4.9-4. Tsunami Hazard Areas

Sources: California Geological Survey; California State Geoportal; Contra Costa County. Map date: April 27, 2022.

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The purpose of this EIR section is to address at a programmatic level the consistency of the General Plan Update with applicable land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental effect. This section identifies existing land use conditions within the Study Area and provides an analysis of potential impacts associated with implementation of the General Plan Update. General Plan policies associated with other specific environmental topics (aesthetics, air quality, biological resources, cultural resources, geology/soils, greenhouse gas, hazards, hydrology/water quality, noise, public services, recreation, transportation, and utilities) are discussed in the relevant sections of this EIR.

4.10.1 ENVIRONMENTAL SETTING

EXISTING CONDITIONS

The City Limits includes the area within the City's corporate boundary, over which the City exercises land use authority and provides public services. In addition to the City proper, State law requires that a municipality adopt a General Plan that addresses "any land outside its boundaries which in the planning agency's judgment bears relation to its planning (California Government Code §65300)." This includes the City's SOI, which encompasses the unincorporated areas that are related to the City's current and desired land use planning and growth. The SOI includes all lands within the City's jurisdiction as well as small areas within Alhambra Valley and a much larger area east of the City and north of Highway 4 that predominantly includes industrial, open space, and some residential uses, as shown on Figure 2-2

Land Use Patterns

When discussing land use, it is important to distinguish between planned land uses and existing land uses. The General Plan land use designations identify the long-term planned use of land but do not present a complete picture of existing land uses. The Contra Costa County Assessor's office maintains a database of existing land uses on individual parcels, including the number of dwelling units and related improvements such as non-residential building square footage. This information is used as the basis for property tax assessments and is summarized in Table 4.10-1. Existing land uses refers to the existing built environment, which may be different from the land use or zoning designations applied to land in the City for planning purposes. Figure 4.10-1 displays existing (assessed) land uses within the Study Area.

4.10 LAND USE AND PLANNING

TABLE 4.10-1: EXISTING LAND USES

Use Description	City	% of City	SOI	% of SOI	Total	% of Total
Commercial	159.87	2.17%	76.88	2.03%	236.75	2.12%
Commercial - Vacant	11.19	0.15%	4.48	0.12%	15.67	0.14%
Industrial	697.72	9.48%	892.62	23.59%	1,590.34	14.27%
Industrial - Vacant	65.89	0.90%	302.97	8.01%	368.85	3.31%
Institutional	312.36	4.24%	20.37	0.54%	332.73	2.99%
Institutional - Government-Owned	2,127.68	28.91%	742.74	19.63%	2,870.41	25.76%
Land (open space)	660.36	8.97%	376.06	9.94%	1,036.42	9.30%
Miscellaneous (open space, right of way, undeveloped land)	234.63	3.19%	282.92	7.48%	517.55	4.64%
Multiple	198.43	2.70%	25.02	0.66%	223.45	2.01%
Multiple - Vacant	10.12	0.14%	2.59	0.07%	12.71	0.11%
Residential	2,547.81	34.62%	634.31	16.76%	3,182.11	28.56%
Residential - Vacant	144.12	1.96%	66.48	1.76%	210.60	1.89%
Residential - Vacant - Unbuildable	42.16	0.57%	7.35	0.19%	49.50	0.44%
No Use Code (Use Code = 0)	147.36	2.00%	348.77	9.22%	496.12	4.45%
Total	7,359.68	-	3,783.55	-	11,143.23	-

SOURCE: CONTRA COSTA COUNTY ASSESSOR, 2022; DE NOVO PLANNING GROUP, 2022.

Residential

Residential uses (including residential vacant and unbuildable) account for approximately 31 percent of the total Study Area. The number of housing units in Martinez has steadily increased over the last decade. There are approximately 11,930 single-family dwelling units within Martinez. Other residential uses, including mobile home communities and multi-family housing developments exist in Martinez but are less prevalent than single-family developments within the City. There are approximately 3,487 multi-family dwelling units in Martinez.

Commercial

Commercial uses (including commercial vacant) account for approximately two percent of the total Study Area. There are multiple pockets of commercial uses across the City, including mixed use commercial in the Downtown Core, neighborhood commercial along Alhambra Avenue and Pacheco Boulevard, and regional commercial along the Highway 4 corridor. There are three existing neighborhood shopping centers in Martinez: the Village Oaks Shopping Center at Arnold Drive and Morello Avenue, consisting of approximately 126,500 square feet of commercial space; the Muir Station Shopping Center at Center Avenue and Muir Station Road), consisting of approximately 118,000 square feet of commercial space; and the Virginia Hills Shopping Center at Alhambra Avenue and Virginia Hills Drive, consisting of approximately 66,000 square feet of commercial space.

Industrial

Industrial uses (including industrial vacant) have traditionally played a large part in Martinez's history and continue to this day, accounting for approximately 18 percent of the total Study Area. Industrial uses are located along Embarcadero Street (Bisio Property at 310-314 Embarcadero

Street), light industrial uses along the Pacheco Boulevard Corridor, and heavy industrial typified by the petroleum industry in the northeast quarter of the City near Interstate 680.

Institutional

Institutional uses account for approximately 29 percent of the total Study Area and include educational facilities, solid and liquid waste facilities, and other public and quasi-public facilities. Martinez is served by five elementary schools, one junior high school and one high school. These public schools are supplemented by one private school. Solid waste disposal operations occur at the Contra Costa Transfer Station and the Keller Canyon Landfill, located in eastern portion of the Study Area.

Other

Other land use categories, including land (open space and vacant land), miscellaneous (vacant land and public right-of-way), multiple, and no-use code, account for approximately 21 percent of the total Study Area.

4.10.2 REGULATORY SETTING

STATE

California General Plan Law

Government Code Section 65300 requires that each county and city adopt a General Plan “for the physical development of the city, and any land outside its boundaries which bears relation to its planning.”

The General Plan consists of a statement of development policies and includes a diagram or diagrams and text setting forth objectives, principles standards, and plan proposals. It is a comprehensive long-term plan for the physical development of the county or city and is considered a "blueprint" for development. The State requires that the General Plan contain the following mandatory elements: land use, circulation, housing, conservation, open space, noise, and safety. The City is also required to address environmental justice, including air quality, either as a separate element or as discussion throughout the applicable elements. It may also contain any other elements that the City wishes to include. The land use element designates the general location and intensity of designated land uses to accommodate housing, business, industry, open space, education, public buildings and grounds, recreation areas, and other land uses.

State law (Government Code Section 65580 et seq.) requires cities and counties to update the housing element of their General Plan every eight years. The Housing Element is intended to regulate available housing supply through planning and zoning. State law mandates that local governments adequately plan to meet existing and projected housing needs of the community. The law acknowledges that, in order for the private market to adequately address housing needs, local governments must adopt land use plans and regulatory systems that provide opportunities for housing development. The State law requires the Department of Housing and Community Development (HCD) to review local housing elements for compliance with the law. The City of Martinez updated its Housing Element in 2015. The City is currently updating the Housing Element,

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which will address the City's Regional Housing Needs Allocation and the 2023-2031 planning period, in a process separate from the General Plan Update.

The 2017 General Plan Guidelines, established by the Governor's Office of Planning and Research (OPR) to assist local agencies in the preparation of their general plans, further describe the mandatory land use element as a guide to planners, the general public, and decision makers prescribing the ultimate pattern of development for the county or city.

Subdivision Map Act

A subdivision is any division of land for the purpose of sale, lease or finance. The State of California Subdivision Map Act (Government Code Section 66410) regulates subdivisions throughout the State. The goals of the Subdivision Map Act are as follows:

- To encourage orderly community development by providing for the regulation and control of the design and improvement of a subdivision with proper consideration of its relationship to adjoining areas;
- To ensure that areas within the subdivision that are dedicated for public purposes will be properly improved by the subdivider so that they will not become an undue burden on the community; and
- To protect the public and individual transferees from fraud and exploitation.

The Map Act allows cities flexibility in the processing of subdivisions. The City of Martinez controls this process through the subdivision regulations in the Municipal Code Title 21, *Subdivisions*. These regulations ensure that minimum requirements are adopted for the protection of the public health, safety and welfare; and that the subdivision includes adequate community improvements, municipal services, and other public facilities.

California State Lands Commission

The California State Lands Commission (SLC) manages all lands owned and entrusted to the State of California. These include the beds of many rivers, sloughs, and lakes, as well as coastline and granted lands. The SLC issues permits and leases for use of State lands. In September 2014, the City was granted all right, title and interest in the Martinez Marina and the associated landside parcels. The SLC requires that the City of Martinez submit by January 1, 2020 a trust land use plan (referred to as the Marina and Waterfront Land Use Plan in the proposed General Plan Update document). The plan was drafted and is under review by the SLC. The draft Marina and Waterfront Trust Land Use Plan will describe any proposed development, preservation, recreation, or other use of the property, and requires the State Lands Commission Board approval. Refer also to the Trust Land Use Plan discussion below.

REGIONAL

Association of Bay Area Governments and Metropolitan Transportation Commission Plan Bay Area 2050

Plan Bay Area 2050 was jointly adopted by the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) in October 2021 and is the region's Regional

Transportation Plan/Sustainable Community Strategy (RTP/SCS). Plan Bay Area 2050 is a long-range regional plan for the nine-county San Francisco Bay Area, encompassing housing, economic, transportation, and environmental strategies designed to make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges.

Plan Bay Area 2050 is composed of 35 integrated strategies across the four elements that provide a blueprint for how the Bay Area can accommodate future growth and make the region more equitable and resilient in the face of unexpected challenges and achieve regional GHG emissions reduction targets established by CARB, pursuant to SB 375.

In summary, Plan Bay Area 2050:

- Details housing and economic strategies (“land use”) to invest \$702 billion in expected revenues to accommodate 2.7 million new persons, 1.4 million new households, 1.5 million new forecasted housing units, and 1.4 million new jobs between 2015 and 2050;
- Details transportation strategies to invest \$579 billion in expected revenues from federal, State, regional, and local sources over the next 30 years;
- Details environmental strategies to invest \$102 billion in expected revenues to protect the region from at least two feet of future permanent sea level rise inundation, reduce climate emissions, and maintain and expand the region’s parks and open space system; and
- Complies with Senate Bill (SB) 375, the State’s SCS law, which requires integration of land use and transportation planning to reduce per-capita passenger vehicle GHG emissions by 2035 and provide adequate housing for the region’s forecast of 2.7 million new persons and 1.4 million new households.

San Francisco Bay Plan

The San Francisco Bay Plan (Bay Plan) was prepared by the San Francisco Bay Conservation and Development Commission (BCDC). The Bay Plan guides BCDC’s planning and actions for the area within its jurisdiction. The Bay Plan includes two primary parts: the policies to guide future uses of the Bay and shoreline, and the maps that apply these policies to the present Bay and shoreline.

The Bay Plan, covers the following matters:

- The results of BCDC’s detailed study of the Bay;
- The comprehensive plan adopted by BCDC for the conservation of the water of San Francisco Bay and the development of its shoreline;
- BCDC’s recommendation of the appropriate agency to maintain and carry out the Bay Plan;
- BCDC’s estimate of the approximate amount of money that would be required to maintain and carry out the provisions of the Plan for the Bay; and
- Other information and recommendations the BCDC deemed desirable.

The California Legislature received and acted upon the Bay Plan in 1969. The revised McAteer-Petris Act adopted by the Legislature and signed into law by the Governor designated the BCDC as the

agency responsible for maintaining and carrying out the provisions of the law and the Bay Plan for the maintenance and protection of San Francisco Bay. BCDC is the federally designated state coastal management agency for the San Francisco Bay segment of the California coastal zone. This designation empowers BCDC to use the authority of the federal Coastal Zone Management Act to ensure that federal projects and activities are consistent with the policies of the Bay Plan and State law.

BCDC may amend the Bay Plan from time to time so long as the changes are consistent with the findings and declarations of policy in the law. Consistent with that provision, BCDC has adopted a number of amendments to the Bay Plan policies and maps and such amendments to date have been incorporated in the Bay Plan.

BCDC has jurisdiction of areas that are within 100 feet of the shoreline. The provisions of the Bay Plan pertaining to areas outside of the 100-foot shoreline band are advisory. The Study Area is located within the area addressed by Plan Map 2. Plan Map 2, Policy 14 refers to the area as Martinez Regional Shoreline and Martinez Waterfront Park and provides for the following: preservation of a mix of recreational uses for picnicking, wildlife viewing, wildlife habitat management and hiking in regional park and community facilities, including team sports in City park; possible ferry terminal; bus public transit to reduce traffic and parking needs, if compatible with park and marina use; and completion of the Bay Trail and provision of non-motorized small boat landing and launching. Plan Map 2 designates the area along the Martinez Regional Shoreline as Waterfront Park/Beach, Tidal Marsh, and Water Related Industry.

Permit requirements are detailed in Title 7.2 of the California Government Code and Title 14, Division 5 of the California Code of Regulations. BCDC has the authority to approve projects with conditions that must be carried out as a part of the authorized project. According to BCDC's website, typical permit conditions include requirements to construct, guarantee, and maintain public access to the Bay, plan review requirements that must be met before construction can begin, and mitigation requirements to offset the adverse environmental impacts of proposed projects.

Local Agency Formation Commission of Contra Costa County

In 1963, the State Legislature created a local agency formation commission (LAFCO) for each county, with the authority to regulate local agency boundary changes. Subsequently, the State has expanded the authority of LAFCO. The goals of LAFCO include preserving agricultural and open space land resources and providing for efficient delivery of services. The Contra Costa LAFCO has authority over land use decisions in Contra Costa County affecting local agency boundaries. Its authority extends to the incorporated cities, including annexation of County lands into a City, and special districts within the County. LAFCO has the authority to review and approve or disapprove the following:

- Annexations to or detachments from cities or districts;
- Formation or dissolution of districts;
- Incorporation or disincorporation of cities;
- Consolidation or reorganization of cities or districts;
- Extensions of service beyond an agency's jurisdictional boundaries;
- Development of, and amendments to, Spheres of Influence (SOI); and
- Provision of new or different services by districts.

In addition, LAFCO conducts Municipal Service Reviews (MSRs) for services within its jurisdiction. An MSR typically includes a review of existing municipal services provided by a local agency and its infrastructure needs and deficiencies. It also evaluates financing constraints and opportunities, management efficiencies, opportunities for rate restructuring and shared facilities, local accountability and governance, and other issues.

Measure J Expenditure Plan

Measure J, approved by Contra Costa County voters in November 2004, provides for the continuation of a half-cent transportation sales tax through the year 2034 (25 years beyond the original expiration date of 2009 under Measure C). As with Measure C, Measure J included an expenditure plan that outlined how the expected revenues from the sales tax would be spent. Measure J requires each jurisdiction in Contra Costa County to comply with all of the following components of its Growth Management Program:

- Adopt a Growth Management Element;
- Adopt a Development Mitigation Program;
- Participate in a Cooperative, Multi-Jurisdictional Planning Process to Reduce Cumulative Regional Traffic Impacts of Development;
- Address Housing Options;
- Develop a Five-Year Capital Improvement Program;
- Adopt a Transportation Systems Management Ordinance or Resolution; and
- Adopt an Urban Limit Line. Cities that do not adopt a ULL default to the voter-approved Countywide ULL, adopted under Measure C in 1990. It is noted that the City of Martinez is in compliance with the ULL that Countywide voters approved in November 2006, and was adopted by the City Council in May 2007.

Contra Costa County Airport Land Use Compatibility Plan

On December 13, 2000, the Contra Costa County Airport Land Use Commission (ALUC) adopted the Airport Land Use Compatibility Plan (ALUCP), which sets forth the "referral area boundaries" around each airport in the County and the limits on land use, building height, and population density in those areas. The ALUCP regulates land use in three major areas: safety zones, noise zones, and height restrictions. It provides land use compatibility guidelines for lands near the airport, to avert potential safety problems and to ensure unhampered airport operations. The ALUCP establishes three safety zones that are linked to land use compatibility: clear, approach/departure, and overflight.

Under California Government Code Section 65302.3(a), general plans must be consistent with any airport land use plan adopted pursuant to Public Utilities Code Section 21675. Buchanan Field Airport, located approximately 0.75 miles east of Martinez and bordering the cities of Concord and Pleasant Hill and the unincorporated community of Pacheco, is the closest airport to Martinez. Lands within the City limits and SOI, are located within the airport influence areas identified by the ALUCP; refer to Figure 4.8-1 in Section 4.8, Hazards and Hazardous Materials.

The Buchanan Field Airport Influence Area is defined by the outer edge of the airport's Federal Aviation Regulations (FAR) Part 77 conical surface. This area extends 14,000 feet from the ends of the primary surfaces for Runways 1L-19R and 14L-32R, and includes lands within Martinez City limits

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and SOI. The airport influence area encompasses locations commonly overflown by aircraft as they approach and depart the airport or fly within the traffic pattern. Aircraft may overfly these locations at or below the established traffic pattern altitude (1,000 feet above the airport elevation for light aircraft; 1,500 feet for jets and other large aircraft). The primary criteria for assessing whether a land use plan, ordinance, or development proposal is to be judged compatible with Buchanan Field is the Countywide Compatibility Criteria; these include:

- a. policies pertaining to the review of general plans (Countywide Policy 2.4.3);
- b. consideration for special conditions (Countywide Policy 2.4.4); and
- c. supplemental compatibility criteria (Countywide Policies, Section 4).

Noise contours are used as the basis for evaluating the aircraft-related noise levels to which nearby property is subjected. Acceptable noise levels for Single-Family Residential, duplex, and mobile home residential uses are considered normally acceptable at noise exposures up to 55 dB CNEL, and marginally acceptable at exposures between 55 and 65 dB CNEL. As a condition for approval of any new development within the 60-dB CNEL contour, a notice indicating that the property is subject to frequent aircraft noise intrusion shall be recorded with the deed. Noise contours within the SOI include the 55-60 dB CNEL contour. Within this zone, single family, as well as amphitheater uses are considered marginally acceptable, while uses such as public facilities, commercial and industrial, and agricultural and recreational uses are normally acceptable.

The boundaries of the Buchanan Field Airport Safety Zone that are within the SOI include Safety Zone 4. Within Safety Zone 4, land use intensity is not limited other than that buildings shall have no more than four habitable floors above ground, and aboveground storage of more than 2,000 gallons of fuel or other hazardous materials is prohibited in existing or planned residential or commercial areas.

Basic height limitations for protection of the airport's airspace limits the height of objects in the vicinity of Buchanan Field Airport are required. The basic limitations are set in accordance with FAR Part 77 surfaces and Terminal Instrument Procedures (TERPS) criteria, and no objects shall be permitted to exceed these height limits unless the ALUC has either established a Height Exception Overlay Zone or granted a case-specific exception. Located within Martinez, Height Exception Overlay Zone 2 encompasses locations where the ground level penetrates the airspace surfaces defined by FAR Part 77. New structures or additions to existing structures proposed for construction within Height Exception Overlay Zone 2 are permitted to have a total height, including all appurtenances, up to 45 feet above ground level at the site. A Federal Aviation Administration aeronautical study is required of any proposed object taller than 45 feet above ground level in this zone. Exceptions to the preceding height limits may be granted on a case-by-case basis in accordance with Countywide Policy 4.3.2.

Contra Costa County General Plan

Contra Costa County adopted its General Plan on January 18, 2005. The County's General Plan provides a comprehensive set of goals, policies, and implementing actions to guide the County's growth through the year 2020. The County's General Plan includes the following elements:

- Land Use

- Growth Management
- Circulation and Transportation
- Housing
- Public Facilities/Services
- Conservation
- Open Space
- Safety
- Noise

The County's General Plan establishes allowed land uses for lands within the City's SOI, which is within the General Plan Update Study Area. While the City of Martinez General Plan Land Use Map identifies planned land uses within the SOI, Contra Costa County has ultimate land use planning and project approval authority within the SOI, unless the lands are annexed to the City.

LOCAL

City of Martinez General Plan

The adopted City of Martinez General Plan establishes land use goals and policies in the Land Use Element. The City adopted its most recent Housing Element January 19, 2011 and updated the Housing Element in 2015. The existing City of Martinez General Plan contains the following State-mandated and optional elements:

- Land Use Element
- Open Space Element
- Parks and Recreation Element
- Safety Element
- Housing Element
- Circulation Element
- Growth Management Element
- Scenic Roadways Element
- Noise Element
- Community Facilities Element

Land uses in Martinez have been developed based on the Land Use Map, goals, and policies established by the adopted General Plan (see Figure 4.10-2).

City of Martinez Zoning Ordinance

Title 22 of the Martinez Municipal Code is the City's Zoning Ordinance. The Zoning Ordinance carries out the policies of the General Plan by classifying and regulating the uses of land and structures within the City, consistent with the General Plan. The Zoning Ordinance is adopted to protect and promote the public health, safety, comfort, convenience, prosperity, and general welfare of residents, and businesses in the City. More specifically, the purpose of the Zoning Ordinance is to achieve the following objectives:

- A. To implement the objectives of the General Plan in all its elements, through the provision of a precise plan consistent with the General Plan, to guide, control and regulate the maintenance, change, growth and development of the City;
- B. To foster a harmonious, convenient, workable relationship among land uses;
- C. To promote the stability of existing land uses which conform to the General Plan and to protect them from inharmonious influences and harmful intrusions;

- D. To ensure that public and private lands ultimately are used for the purposes which are most appropriate and beneficial from the standpoint of the City as a whole;
- E. To prevent excessive population densities and overcrowding of the land with structures;
- F. To foster the provision of adequate off-street parking and loading facilities;
- G. To facilitate the appropriate location of community facilities and institutions; and
- H. To preserve the natural beauty of the City.

Chapter 22.10 of the Zoning Ordinance includes the City's Zoning Map and District Boundaries and provides direction for the interpretation of the Zoning Map. Chapters 22.12 through 22.30 define allowable land uses within each zoning district, provide development standards for each zoning district and, where applicable, provide performance standards and identify design criteria. Chapters 22.32 through 22.57 establish supplementary regulations, including those for landscaping, signage, recycling facilities, hillside development, agricultural preservation, water conservation, and Planned Unit Developments (among others).

Specific Plans

In addition to the Zoning Ordinance, the General Plan relies on specific plans for implementation. The specific plans in Martinez adopted in accordance with Government Code Section 65453 include the following:

DOWNTOWN MARTINEZ SPECIFIC PLAN

This specific plan was adopted by the City Council in 2006. It primarily addresses land use development policies and development standards which will guide private and public investment in the downtown business area. The Downtown Martinez Specific Plan (DSP) study area covers about 220 acres and is bounded on the north by the Radke Martinez Regional Shoreline and Martinez Waterfront Park; on the east by the PBF Refinery and a hillside residential area accessed by Miller Avenue; on the south by Susana Street; and on the west by cemeteries, Rankin Park, Talbart and Richardson Avenue, and by Thomas Hill, the bluff to the west of Berrellesa Street. The DSP identifies areas for smart and sustainable growth through increased densities that support the Downtown businesses, provide housing opportunities for housing production goals, and are supported by existing transportation and utility infrastructure. Land use designations in the Land Use Element are discussed for their consistency with the land use designations in the DSP.

ALHAMBRA VALLEY SPECIFIC PLAN

Alhambra Valley is an established semi-rural community of approximately 1,000 acres located in the south-westerly portion of Martinez, within the City's SOI, portions of which were annexed into the City in late 2012. As part of the annexation approval process, land use goals unique to the Alhambra Valley (which are contained in the Alhambra Valley Specific Plan, adopted by Contra Costa County in 1992) were adopted by the City and integrated into the 1973 General Plan.

ALHAMBRA HILLS SPECIFIC AREA PLAN

The Alhambra Hills area is in the southern portion of the City to the west of Alhambra Avenue, consisting primarily of open space hills. The specific area plan area is surrounded by local collector streets including Alhambra Avenue on the east, Reliez Valley Road on the west, Alhambra Valley Road to the north, and Horizon Drive, Webster Drive and Benham Drive to the south, encompassing approximately 594 acres. The purpose of the Alhambra Hills Specific Area Plan is to specify policies

for conservation and development which will permit limited development to occur without diminishing the natural form or scenic attributes of the hills. The Alhambra Hills Specific Area Plan was adopted by the City Council in 1987 and amended in 1989.

CENTRAL MARTINEZ SPECIFIC AREA PLAN

This specific area plan incorporates a large area of the historic Downtown and surrounding older residential areas, the waterfront, and the open space areas west of the Downtown. The specific area plan for Central Martinez formulates goals and policies expressly designed to guard the character of the City's older sections while guiding the evolution of the functions at the City core. Policies for major portions of the specific area plan area have subsequently been updated and supplanted with the adoption of the Downtown Specific Plan, Franklin Hills Specific Plan, Protected Open Space and Parks Overlay (POPO) designation, Housing Element, and the updated Circulation Element, and Open Space & Conservation Element.

HIDDEN LAKES SPECIFIC AREA PLAN

This specific area plan covers the area in the south eastern portion of the City bounded by Center Avenue, Contra Costa Canal, Chilpancingo Parkway, and Morello Avenue, and includes Hidden Lakes Park. The Hidden Lakes area consists of 565 acres of undeveloped pasture lands largely surrounded by subdivisions. With its natural knolls and ridges on the south and southwest and its unique "hidden valley" running through the eastern portion, the area includes open space that is preserved through a land use designation of Open Space and Recreation (OS&R).

JOHN MUIR PARKWAY SPECIFIC AREA PLAN

This specific area plan includes the area north of State Route 4 from the eastern edge of the City at Interstate 680 to approximately Howe Road on west. The area is developed with a mixture of low, medium and high density residential, commercial and open space uses.

Downtown Martinez Community-Based Transportation Plan

In 2019, MTC allocated funds to develop Community-Based Transportation Plan updates for the Bay Area's Communities of Concern, which included Downtown Martinez. The Downtown Martinez Community-Based Transportation Plan identifies transportation gaps and recommends strategies to address those gaps.

City of Martinez Trust Lands Use Plan

As previously described, the SLC has granted control over various parts of the waterfront to East Bay Regional Park District (EBRPD) and the City. Per State law, use of public trust lands is generally limited to water-dependent or water-related uses, including commerce, fisheries, and navigation, environmental preservation, and recreation. Recognized Public Trust uses include, among others, public access, ports, marinas, docks and wharfs, buoys, hunting, fishing, bathing, swimming, and boating. Ancillary or incidental uses—uses that are not independently Public Trust-consistent but that are supportive and necessary for trust use, or that accommodate the enjoyment of Public Trust lands—are also permitted; examples include facilities to serve visitors, such as hotels and restaurants, shops, parking, and restrooms. Other examples of acceptable ancillary uses are commercial or industrial facilities that provide support to water-dependent uses that must be located on or directly adjacent to the water, such as warehouses, container cargo storage, and facilities for the transfer of oil and gas products through marine oil terminals. Public Trust lands may

also be kept in their natural state for habitat, wildlife refuges, scientific study, or use as open space. These State use limitations inform the land use policies of the Martinez General Plan for the waterfront area.

The trust use grant of four waterfront parcels to the City included a requirement for the City to prepare a Trust Land Use Plan. This plan, which will be entitled the “Marina and Waterfront Trust Land Use Plan,” will incorporate the allowed uses described above as well as a long-term plan for financial stability of the Marina operations. Land use policies in the Marina and Waterfront Trust Land Use Plan will need to be consistent with State land use limitations and the General Plan Land Use Element. It will also include polices to avoid and mitigate impacts from sea level rise as discussed in the General Plan Public Safety Element.

Martinez Open Space and Park Protection Initiative (Measure I)

The Martinez Open Space and Park Protection Initiative (Measure I) was passed by voters on June 5, 2018. According to the language in Measure I, the purpose of the initiative was to increase protections for open space, park and outdoor recreation land in the City by requiring approval by Martinez voters for any General Plan amendment to change allowable uses or land use designations for such land. The Initiative was also intended to help ensure that those lands and their valued uses are not changed to uses associated with more intensive development without approval by Martinez voters. On September 18, 2019, the City Council adopted Resolution 115-19 approving a General Plan amendment to clarify Measure I.

4.10.3 IMPACTS AND MITIGATION MEASURES

The General Plan Update is a comprehensive update of all of the Elements of the General Plan, including the Housing Element which will be adopted in a process separate from the General Plan Update. The proposed land use plan identifies the type, intensity, general distribution, and general location of land uses for the City; refer to Figure 2-2 in Section 2.0, Project Description. The proposed land use plan designates all land in the Study Area to one of the land use designations identified in Table 4.10-2.

TABLE 4.10-2: PROPOSED GENERAL PLAN UPDATE LAND USE DESIGNATIONS

Land Use Designation	Density	FAR
DOWNTOWN		
Downtown Core (DC)	29.0 to 43.0	2.0 to 4.0
Downtown Government (DG)	29.0 to 43.0	3.0 to 4.0
Downtown Shoreline (DS)	17.0 to 35.0	2.0 to 4.0
Downtown Transition (DT)	19.0 to 30.0	Up to 1.5
GENERAL RESIDENTIAL		
Residential Very Low (RVL)	Up to 1.0	Up to 0.25
Residential Low	1.1 to 6.0	Up to 0.2
Residential Medium (RM)	6.1 to 12.0	Up to 0.25
Residential High (RH)	12.1 to 20.0	Up to 0.25
Residential Very High (RVH)	20.1 to 30.0	Up to 0.25
CENTRAL RESIDENTIAL SINGLE-FAMILY		
Central Residential Low-A (CRL-A)	Up to 6.0	Up to 0.4
Central Residential Low-B (CRL-B)	Up to 9.0	Up to 0.4
CENTRAL RESIDENTIAL MIXED SINGLE-FAMILY AND MULTIFAMILY		
Central Residential Low-C (CRL-C)	Up to 17.0	Up to 0.4
Central Residential Medium (CRM)	Up to 30.0	Up to 0.4
Central Residential High (CRH)	Up to 35.0	Up to 0.4
ALHAMBRA VALLEY		
Alhambra Valley Estate Residential – Very Low (AV-ERVL)	Up to 1.0	Up to 0.2
Alhambra Valley Estate Residential – Low (AV-ERL)	1.1 to 2.0	Up to 0.2
Alhambra Valley Agricultural Lands (AV-AL)	5 acres/du	Up to 0.1
Alhambra Valley Open Space (AV-OS)	N/A	N/A
COMMERCIAL AND MIXED-USE		
General Commercial (GC)	Up to 30.0	Up to 1.0
Neighborhood Commercial (CN)	Up to 9.0	Up to 0.5
Commercial Light Industrial (CLI)	N/A	Up to 0.8
Regional Commercial (CR)	N/A	Up to 1.0
Business Park and Office Professional (BPO)	N/A	Up to 1.0
Industrial and Manufacturing (IM)	N/A	Up to 0.4
PARKS, RECREATION, AND OPEN SPACE PRESERVATION		
Environmentally Sensitive Land (ESL)	See note	N/A
Neighborhood Park (NP)	See note	N/A
Open Space (OS)	See note	N/A
Open Space and Recreation, Permanent (OS&R)	See note	N/A
Open Space 30% Slopes (OS-S)	See note	N/A
Open Space Private (OS-P)	See note	N/A
Open Space Conservation Use Land (CUL)	See note	N/A
Parks and Recreation (P&R)	See note	N/A
Parks and Recreation, Public Permanent Open Space (PPOS)	See note	N/A

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TABLE 4.10-2: PROPOSED GENERAL PLAN UPDATE LAND USE DESIGNATIONS

Land Use Designation	Density	FAR
OTHER DESIGNATIONS		
Marina and Waterfront (MW)	N/A	Up to 1.0
Public and Quasi-Public Instructions Designation	N/A	Up to 1.0

NOTE: THE PROTECTED OPEN SPACE AND PARKS OVERLAY (POPO) APPLIES TO THE PARKS, RECREATION, AND OPEN SPACE PRESERVATION DESIGNATIONS. DEVELOPMENT ON POPO PROPERTIES ARE SUBJECT TO POLICY LU-1.2 AND IMPLEMENTATION MEASURES LU-I-1.2A THROUGH LU-I-1.2L. DENSITY RANGES NOTED FOR OTHER DESIGNATIONS ARE IN DWELLING UNITS PER ACRE (DU/AC).

Figure 2-2 also shows the properties where the Protected Open Space and Parks Overlay (POPO) designation, consistent with the Martinez Open Space and Park Protection Initiative (Measure I), applies. The POPO designation applies to all properties in City limits with the following General Plan land use designations:

- Alhambra Valley Open Space (AV-OS)
- Environmentally Sensitive Land (ESL)
- Neighborhood Park (NP)
- Open Space (OS)
- Open Space and Recreation, Permanent (OS&R)
- Open Space 30% Slopes (OS-S)
- Open Space, Parks and Recreation (OS/P&R)
- Open Space Private (OS-P)
- Open Space Conservation Use Land (CUL)
- Parks and Recreation (P&R)
- Parks and Recreation, Public Permanent Open Space (PPOS)

Based on the proposed land use designations, density and intensity permitted for each parcel, and associated development assumptions, the proposed land plan would allow for increased development over existing conditions by 2,060 additional dwelling units and 2,818,060 additional square feet of non-residential uses; refer to Table 2-3 in Section 2.0, Project Description.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project may have a significant impact on the environment associated with land use. Accordingly, a project may create a significant environmental impact if the project would:

- Physically divide an established community; and/or
- 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.

IMPACTS AND MITIGATION MEASURES

Impact 4.10-1: General Plan implementation has the potential to physically divide an established community (Less than Significant)

The proposed General Plan Update establishes the City's vision for future growth and development. The land uses allowed under the proposed General Plan Update Land Use Map (Section 2.0, Project Description Figure 2-2) provide opportunities for cohesive new growth at infill locations within existing urbanized areas of the City, as well as new growth adjacent to existing urbanized areas, but would not create a physical division within an established community. New development and redevelopment projects would be designed around existing communities and neighborhoods, and provide connectivity between existing development and new development. The proposed General Plan Update Land Use Map designates sites for a range of urban uses as well as open space. Furthermore, the proposed General Plan Update does not include any new areas designated for urbanization or new roadways, infrastructure, or other features that would divide existing communities.

The General Plan Update includes a range of goals, policies, and implementation measures to ensure that land uses and future land development follows an orderly and cohesive pattern to ensure that new development, consistent with the General Plan Update, does not impact established communities. Goal LU-G-1 promotes a balanced land use pattern and mix of uses, which enhance community character and serve the needs of existing and future residents. This goal encourages land use development to occur in an orderly fashion and in pace with the expansion of public facilities, while providing appropriate transitions between single family neighborhoods and higher intensity uses. Policy LU-P-1.1 supports this goal by ensuring that the City maintains and implements the General Plan Land Use Map, which provides a description and location of land uses, and only permits development that is consistent with the General Plan Update. Goal LU-G-2 ensures the preservation and strengthening of the City's overall image, and assures development that enhances the existing character, while preserving natural resources, residential neighborhoods, commercial areas and the small town historic character of Downtown Martinez. Policy LU-P-2.3 supports this goal by ensuring that the City acknowledges the unique historic character of the Central residential areas and modifies standards and zoning regulations to facilitate maintenance and upgrading of existing structures that are currently seen as nonconforming by conventional zoning standards. Goal LU-G-4 calls for the preservation of historic resources throughout the City of Martinez, and is supported by Policy LU-P-4.3, which protects the character of single-family residential neighborhoods through the preservation and improvement of their character-defining features. Policies LU-P-2.1, LU-P-2.2, and LU-P-2.3 promote new infill development projects that are consistent with the City's Land Use Map, compatible with surrounding existing uses, and provide transit-oriented opportunities. Policy LU-P-2.5 encourages multi-family residential developments to be visually and functionally integrated and consistent in scale, mass, and character when located within an existing residential neighborhood. Policy LU-I-3.6a supports new developments that are compatible with the surrounding environment in terms of form, scale and physical appearance. Additionally, the Parks & Community Facilities Element provides policies that improve alternative linkages between parks, neighborhoods, and services. Specifically, Policy PCU-P-3.5 supports creating linkages on parcels in the planned trail system by incorporating easements or dedications of public right-of-way when possible; and Policy

PCU-P-3.6 directs regional cooperation on trail planning issues, including trail development and linkages.

Implementation of the General Plan Update is intended to ensure that development in the Martinez Study Area protects existing communities through a continued effort to ensure adequate, high-quality development, connectivity, and reduced land use conflicts throughout the Study Area. The General Plan Update goals, policies, and implementation measures would ensure that future development is compatible with adjacent development and consistent with development identified and anticipated in the General Plan Update. Therefore, the proposed General Plan Update would have a **less than significant** impact associated with the physical division of an established community.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Land Use Element

Goals

- LU-G-1 Promote a balanced land use pattern, a mix of which enhances community character and serves the needs of existing and future residents. Encourage land use development to occur in an orderly fashion and in pace with the expansion of public facilities. Provide appropriate transitions between single family neighborhoods and higher intensity uses. Preserve open space and historic structures.
- LU-G-2 Preserve and strengthen the City's overall image and create development that enhances the existing character and preserves the natural resources, residential neighborhoods, commercial areas, and small-town historic character of Downtown Martinez to the maximum extent feasible.
- LU-G-4 Preserve historic character throughout the City of Martinez by preserving the distinctive character of residential and commercial districts.

Policies

- LU-P-1.1 Maintain and implement the General Plan Land Use Map (Figure 2-4) that provides a description and location of land uses. Only permit development that is consistent with the General Plan. Require all projects to meet density, floor area ratio, and all other standards applicable to individual land use designations.
- LU-P-2.1 Support land use patterns and mixed-use infill development in the City's Downtown Priority Development Area (PDA) that will attract and serve riders of public transit.
- LU-P-2.2 Support the transformation of Downtown Martinez into a pedestrian-oriented commercial and mixed-use district with a mix of office, retail, government, high and mid-density residential, cultural, and entertainment land uses, designed to create an active lively streetscape and a sense of place.

- LU-P-2.3 Consider new infill and development projects within the Downtown that are consistent with the City's Land Use Map and compatible with surrounding uses.
- LU-P-2.4 Acknowledge the unique historic character of the Central Residential areas and facilitate maintenance and upgrading of existing structures that are currently seen as nonconforming by conventional zoning standards. Traditional design elements, such as covered front porches, should be encouraged.
- LU-P-2.5 New multi-family residential development should be visually and functionally integrated and consistent in scale, mass, and character when located within an existing residential neighborhood.
- LU-P-4.1 Continue to encourage and support the design review process for residential and commercial projects to ensure compatibility with the existing historic character.
- LU-P-4.2 Protect the character of single-family residential neighborhoods through the preservation and improvement of their character-defining features. Such features include but are not limited to tree-lined streets, building orientation, sidewalks, and architectural scale and quality.
- LU-P-4.3 Allow the conversion of older single-family homes for commercial uses within commercially zoned areas of the Downtown and along commercially zoned corridors where residential use is no longer desirable. This will encourage adaptive reuse as opposed to demolition, helping achieve some preservation of historic character.

Implementation Measures

- LU-I-1.1a Amend the Zoning Ordinance to apply zoning districts consistent with new or amended General Plan land use designations to ensure consistency with the General Plan. As part of the Housing Element Update, consider allowing multi-family residential uses within the Public and Quasi-Public Institutions (PI) land use designation to create opportunities for teacher and affordable workforce housing.
- LU-I-4.1a Consider Zoning Ordinance and/or Specific Plan amendments to strengthen design guidelines within the Downtown Martinez Specific Plan area to preserve, enhance, and complement the existing character in Downtown Martinez and other historical commercial and residential areas.
- LU-I-4.1b The Planning Commission should continue to review and provide design recommendations for development proposals in the Downtown.

Parks and Community Facilities Element

Goals

- PCU-G-3 An interconnected trail system providing access to recreational opportunities should continue to be developed and enhanced as funding permits.

Policies

- PCU-P-3.1 Partner with local and regional agencies to improve trail connections within and beyond the City limits and coordinate funding for trail acquisition, construction and maintenance, whenever feasible.
- PCU-P-3.2 Improve trail utilization and experience through installation of wayfinding signage to locate trails, and educational signage along trails regarding biological resources.
- PCU-P-3.3 Locate and construct new trails where access is easy to maximize their potential use and enjoyment by residents and visitors. Consider locating new trails within unused street rights-of-way (such as the Panoramic Drive “paper street” between Green Street and Thomas Drive).
- PCU-P-3.4 Incorporate trail development in the City’s Capital Improvement Program.
- PCU-P-3.5 When considering development on parcels that provide missing links in the planned trail system, trails and connections should be incorporated into the development plan with a possible easement or dedication of public right-of-way when possible.
- PCU-P-3.6 Work with the East Bay Regional Parks District (EBRPD), Contra Costa Water District, Contra Costa County, adjacent cities, regional trail groups, and other public agencies on trail planning issues, including trail development and linkages, and promotion of connections to the San Francisco Bay Water Trail.
- PCU-P-3.8 Locate new trails, and promote existing trails, with an emphasis on scenic qualities, accessibility for persons with disabilities, and making connections with local and regional open space areas, parks, points of interest and community facilities.
- PCU-P-3.9 When appropriate, encourage the public purchase of private lands for the preservation of open space ridge lines.
- PCU-P-3.10 Require future development within or upon ridgelines to provide access to and from or through the development via public trails through appropriate conditions of approval.

Impact 4.10-2: General Plan implementation could conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect (Less than Significant)

STATE PLANS

The proposed General Plan Update was prepared in conformance with State laws and regulations associated with the preparation of general plans, including requirements for environmental protection. Discussion of the proposed General Plan Update’s consistency with State regulations, plans, and policies associated with specific environmental issues (e.g., air quality, traffic, water quality, etc.) is provided in the relevant Sections of this Draft EIR.

The State would continue to have authority over any State-owned lands in the vicinity of the City. As previously described, the SLC has granted control over various parts of the waterfront to EBRPD and

the City. The trust use grant of four waterfront parcels to the City included a requirement for the City to prepare a Trust Land Use Plan. A Marina and Waterfront Trust Land Use Plan has been drafted and provided to the SLC. The plan is required to describe any proposed development, preservation, or other use of the property. The land use policies in the Marina and Waterfront Trust Land Use Plan would be required to be consistent with State land use limitations and the proposed General Plan Land Use Element. It also includes policies to avoid and mitigate impacts from sea level rise as discussed in the proposed General Plan Update Public Safety Element. The plan requires the State Lands Commission Board approval and is separate from the proposed General Plan Update. However, the plan provides objectives and implementation measures that are consistent with the General Plan Update. Once approved, any amendments would require approval by the SLC. The General Plan Update includes policies and implementation measures to ensure consistency with the Marina and Waterfront Trust Land Use Plan. Land Use Element Measure LU-I-5.4a requires the development of the Marina and Waterfront Trust Land Use Plan for the waterfront area as required by Senate Bill No. 1424, including information and policies regarding the effects of sea level rise on existing and proposed uses. Implementation Measure LU-I-5.4c would adopt the appropriate zoning for implementation of the Marina and Waterfront General Plan Land Use designation upon completion of the Marina and Waterfront Trust Land Use Plan. Any future development associated with implementation of the General Plan Update would be required to be consistent with the approved Marina and Waterfront Trust Land Use Plan. The proposed General Plan Update would not conflict with the continued application of State land use plans, policies, and regulations adopted to avoid or mitigate environmental effects.

REGIONAL PLANS

As discussed, the General Plan Update Study Area includes the SOI, which encompasses unincorporated areas within Contra Costa County that are related to the City's current and desired land use planning and growth. A city's SOI is defined by the California Government Code as the probable ultimate physical boundaries and service area of a city. Cities are empowered by the State to consider these areas and other unincorporated areas that bear relation to the city's future in their general plans. In theory, this provides cities with a mechanism to shape the future of areas that they may consider as future annexation areas. Although the General Plan Update applies land use designations to lands within the SOI, these lands would remain under the jurisdiction of the County and, unless annexed into the City, any proposed development would be reviewed for consistency with the County General Plan and Zoning, including implementation of any County General Plan policies or regulations specific to the proposed development. Thus, the proposed General Plan Update would not conflict with any County General Plan policies or regulations adopted to avoid or mitigate environmental effects.

Buchanan Field Airport is located approximately 0.75 miles east of Martinez. The Contra Costa ALUC adopted the ALUCP, which regulates land use in three major areas: safety zones, noise zones, and height restrictions. It provides land use compatibility guidelines for lands near the airport, to avert potential safety problems and to ensure unhampered airport operations. Under California Government Code Section 65302.3(a), general plans must be consistent with any airport land use plan adopted pursuant to Public Utilities Code Section 21675. Lands within the Study area are located within the Buchanan Field Airport Influence Area; refer to Figure 4.8-1 in Section 4.8, Hazards and Hazardous Materials. As shown in Figure 4.8-1, Safety Zone 2 and Safety Zone 4 extend into the Study Area. The ALUCP sets safety standards for each Safety Zone, including permitted land

uses and intensity, height limits, and hazardous materials storage. The General Plan Update does not propose any land use changes or increases in the intensity or density of land uses within the AIA boundaries. The area within the AIA would remain Public/Quasi Public and Open Space. The existing land use designations would remain; therefore, the General Plan Update would not introduce new residents or employees within AIA boundaries and would not conflict with the policies and regulations of the ALUCP adopted to avoid or mitigate environmental effects..

The San Francisco Bay Plan guides BCDC's planning and actions for the area within its jurisdiction. BCDC has jurisdiction of areas that are within 100 feet of the shoreline. The Study Area is located within the area addressed by Plan Map 2. Plan Map 2, Policy 14 refers to the area as Martinez Regional Shoreline and Martinez Waterfront Park. Permit requirements are detailed in Title 7.2 of the California Government Code and Title 14, Division 5 of the California Code of Regulations. BCDC has the authority to approve projects with conditions that must be carried out as a part of the authorized project. Typical permit conditions include requirements to construct, guarantee, and maintain public access to the Bay, plan review requirements that must be met before construction can begin, and mitigation requirements to offset the adverse environmental impacts of proposed projects. The proposed General Plan Update does not conflict with the San Francisco Bay Plan. Future development proposals located within 100 feet of the bay would be subject to review and permitting by BCDC. As part of the review process, the proposals would be required to comply with applicable provisions of the Bay Plan. Thus, the proposed General Plan Update would not conflict with any policies or regulations of the San Francisco Bay Plan adopted to avoid or mitigate environmental effects.

LOCAL PLANS

As set forth by State law, the General Plan serves as the primary planning document for the City and subordinate documents and plans would be updated to be consistent with the General Plan Update. Similar to the existing General Plan, the proposed General Plan Update focuses on ensuring that the City's quality of life is maintained, that increased opportunities for local job growth and economic development are provided, and that preservation of natural resources occurs within the Study Area. The proposed General Plan Update carries forward and enhances policies and implementation measures from the City's existing General Plan that were intended for environmental protection, and would not remove or conflict with City plans, policies, or regulations adopted for environmental protection. As part of the General Plan Update, new policies and implementation measures are proposed that would provide for additional protections and ensure that future development would be required to comply with policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect. For example, General Plan Land Use Policy LU-P-1.2 and associated implementation measures would implement the provisions established by the Martinez Open Space and Park Protection Initiative (Measure I) for the properties in the Protected Open Space and Parks Overlay (POPO) designation.

While the proposed General Plan Update has been developed to be largely consistent with adopted plans and regulations, the General Plan Land Use Map designates lands for residential development that are identified as open space, including existing Open Space-Private, Open Space and Recreation, Public Permanent Open Space, and Open Space Conservation Use Land. These lands are generally designated for lower density residential development (RVL, RL, and Alhambra Valley designations) under the existing General Plan. In some cases, the redesignation reflects existing development on

parcels and would not provide for additional density. However, there would be parcels currently designated as open space that would be allowed to develop with additional low density uses under the proposed project. Potential environmental impacts associated with development under the proposed General Plan Update and the ability for the goals, policies, and implementation measures to minimize potential environmental effects are discussed throughout Sections 4.1 through 4.16 of this EIR. The General Plan Update itself would not conflict with any policies or regulations identified for the purpose of avoiding or mitigating an environmental effect.

The proposed General Plan Update would require modifications to the City's Zoning Ordinance, which would provide consistency between the General Plan and Zoning Ordinance and would not involve the removal or adversely modify portions of the Martinez Municipal Code that were adopted to mitigate an environmental effect. Implementation Measure LU-I-1.1a ensures the continued support and effort to amend the Zoning Ordinance to implement new General Plan Land Use Designations to ensure consistency with the General Plan, and to develop design guidelines as part of the Zoning Ordinance revision. The Zoning Ordinance would implement the goals and policies of the proposed General Plan Update and future development would be reviewed for consistency with the Zoning Ordinance.

Existing specific plans would not be modified by the proposed General Plan Update. The specific plans would continue to provide the regulatory framework for development specific to those areas. A unique land use category, the Alhambra Valley Open Space (AV/OS) designation, has been created to correspond to approximately 500 acres of hillside land within the Alhambra Hills Specific Plan, which are generally to be preserved as open space, but does allow for a very limited number of "remote homesites" pursuant to that Specific Plan. The AV/OS designation would be consistent with the intent of preserving open space and would not conflict with any policies or regulations identified by the Specific Plan for the purpose of avoiding or mitigating an environmental effect.

Implementation Measure LU-I-2.1a requires the City to continue to implement the Downtown Specific Plan to guide new mixed-use infill development. The proposed General Plan Update goals, policies, and implementation measures have been prepared to be consistent with the Downtown Specific Plan and do not restrict or conflict with portions of the Downtown Specific Plan that address environmental impacts. Proposed Downtown land use designations encourage the ultimate replacement of existing uses with a variety of more intense uses to better define a traditional mixed-use urban environment, as outlined in the Downtown Specific Plan. Implementation Measure LU-I-2.5a would require high quality design review and inspection services throughout the Downtown Specific Plan area for all development activities. Specific development standards and requirements and implementation of any mitigation measures previously identified to reduce impacts associated with implementation and development of the approved Specific Plans would continue to be required. Thus, implementation of the General Plan Update would not conflict with any policies or regulations identified by the Specific Plan for the purpose of avoiding or mitigating an environmental effect.

Overall, subsequent development and infrastructure projects would be required to be consistent with all applicable policies, standards, and regulations, including those land use plans, policies, and regulations adopted to mitigate environmental effects by the City, as well as those adopted by agencies with jurisdiction over components of future development projects. The General Plan Update includes policies and implementation measures to ensure that future projects adhere to land

use policies and regulations providing environmental protection. The proposed General Plan Update would not conflict with any applicable land use plan, policy, or regulation adopted to avoid or mitigate an environmental effect. Therefore, this impact is **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Land Use Element

Goals

- LU-G-1 Promote a balanced land use pattern, a mix of which enhances community character and serves the needs of existing and future residents. Encourage land use development to occur in an orderly fashion and in pace with the expansion of public facilities. Provide appropriate transitions between single family neighborhoods and higher intensity uses. Preserve open space and historic structures.
- LU-G-7 Preserve and enhance both the natural and man-made environment in Alhambra Valley.
- LU-G-8 Encourage the preservation of existing agricultural businesses and minimize and resolve conflicts between agricultural and urban uses within and adjacent to the Alhambra Valley semi-rural residential community.
- LU-G-9 Preserve areas of high scenic value and the rural-residential atmosphere in the area within Alhambra Valley.
- LU-G-10 Ensure that new public service facilities, which are needed to provide adequate levels of service within Alhambra Valley, are sensitive to the natural setting.

Policies

- LU-P-1.1 Maintain and implement the General Plan Land Use Map (Figure 2-4) that provides a description and location of land uses. Only permit development that is consistent with the General Plan. Require all projects to meet density, floor area ratio, and all other standards applicable to individual land use designations.
- LU-P-7.1 Structures shall be designed to blend into, rather than dominate the natural setting, especially on ridgelines. The massing of new dwellings should be compatible with the natural setting.
- LU-P-8.1 Agriculture shall be protected to maintain the semi-rural atmosphere and to retain a balance of land uses in Alhambra Valley.
- LU-P-9.1 To the extent feasible, scenic features should be protected or maintained, either through land dedication to a public agency or through the granting of scenic or conservation easements.
- LU-P-9.2 High quality engineering of slopes shall be required to avoid soil erosion, downstream flooding, slope failure, loss of vegetative cover, high maintenance costs, property damage, and damage to visual quality.

- LU-P-9.3 In order to conserve the scenic beauty of Alhambra Valley, developers shall generally be required to restore the natural contours and vegetation of the land after grading and other land disturbances. Public and private projects shall be designed to minimize damage to significant trees and other visual landmarks.
- LU-P-9.4 Extreme topographic modification, such as filling in canyons or removing hilltops shall be avoided. Clustering and planned development approaches to development shall be encouraged. All future development plans, whether large-scale or small-scale, shall be based on identifying safe and suitable sites for buildings, roads, and driveways.
- LU-P-9.5 The construction of new structures on the top of scenic ridges or within 50 feet of the ridgeline shall be discouraged.
- LU-P-9.6 Enhance and protect access to established scenic routes through the development of trails and other facilities.
- LU-P-9.7 New projects shall be designed to blend in with the rural setting of Alhambra Valley as much as possible. The use of fire-resistant materials shall be encouraged.
- LU-P-9.8 The use of scenic easements shall be encouraged to protect agricultural and park lands which abut land with urban land use designations such as residential and commercial uses.
- LU-P-9.9 Preserve the visually open character of Alhambra Valley and Reliez Valley Roads.
- LU-P-10.1 Dedication of public roads in unstable hillside areas shall generally not be accepted by the City. Consideration may be given to acceptance where stability can be assured and where such roads are fully developed and provide through access to other existing development.
- LU-P-10.2 Control erosion in natural watercourses where creek capacity and bank stability necessitate, as per applicable creek preservation and improvement plan.

Implementation Measures

- LU-I-1.1a Amend the Zoning Ordinance to apply zoning districts consistent with new or amended General Plan land use designations to ensure consistency with the General Plan. As part of the Housing Element Update, consider allowing multi-family residential uses within the Public and Quasi-Public Institutions (PI) land use designation to create opportunities for teacher and affordable workforce housing.
- LU-I-5.4a Develop the Marina and Waterfront Trust Land Use Plan for the waterfront area as required by Senate Bill No. 1424, which granted the City of Martinez all right, title, and interest in the Marina and the associated landside parcels. Include in the Marina and Waterfront Trust Land Use Plan proposed development, preservation, or other use of the property. Consideration should be given to including in the plan uses proposed and appropriate for the marina and landside areas, including possible water-oriented recreation opportunities, and should analyze revenue sources to maintain fiscal stability

4.10 LAND USE AND PLANNING

of the marina. The plan will include information and policies regarding the effects of sea level rise on existing and proposed uses. The plan requires the State Lands Commission approval for the initial plan and any amendments.

- LU-I-5.4b Establish a new land use category for the Marina and waterfront area on the Land Use Map called “Marina and Waterfront” with allowed uses consistent with State trust law described in Section 2.3 of this Land Use Element.
- LU-I-5.4c Upon completion of the Marina and Waterfront Trust Land Use Plan, adopt appropriate zoning for implementation of the Marina and Waterfront General Plan Land Use designation.
- LU-P-7.2 Only allow development which is sensitive to available natural resources and features. New development shall generally conform to natural contours and avoid excessive grading.
- LU-P-7.3 Hilltop ridges, rock outcroppings, mature stands of trees and other natural features shall be preserved to the greatest extent possible in the design of new projects.
- LU-8.1a Consider the adoption and maintenance of regulations for new development in and adjacent to agricultural areas that ensure its compatibility with agricultural uses. Consideration should be given to appropriate setbacks for structures located within or adjacent to cultivated agricultural lands.
- LU-8.1b Consider information brochures or handouts that inform and educate perspective home buyers in or near agricultural areas regarding the incompatibility and hazards associated with nearby agricultural practices.
- LU-I-8.1a Consider the adoption and maintenance of regulations that restrict the use of solid fencing and encourage the use of low, open rail type fencing.
- LU-I-8.1c Consider the adoption and maintenance of regulations and design standards for new residential development to preserve the rural residential atmosphere in Alhambra Valley.
- LU-I-8.1d Maintain standards through the review and approval process for development of hillsides to protect slopes and minimize visual impacts.
- LU-I-10.1a Improvement plans shall require new development to provide on-site storm water and drainage facilities which accommodate full build out and consider a range of design alternatives.

4.10.4 CUMULATIVE IMPACTS

Development of cumulative projects in the City of Martinez would be required to mitigate land use impacts on a project-by-project basis. Each project would be evaluated for consistency with the project site’s General Plan land use designation and zoning, adopted General Plan goals, policies, and implementation measures, and other applicable regional or local plans. As analyzed above, the

proposed General Plan Update would not physically divide an established community or 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. Therefore, the proposed General Plan Update's incremental contribution to cumulative land use impacts would be **less than cumulatively considerable**.

4.10.5 SIGNIFICANT UNAVOIDABLE IMPACTS

Land use and planning impacts associated with the implementation of the General Plan would be **less than significant**. No significant unavoidable land use and planning impacts would occur as a result of the General Plan.

4.10.6 REFERENCES

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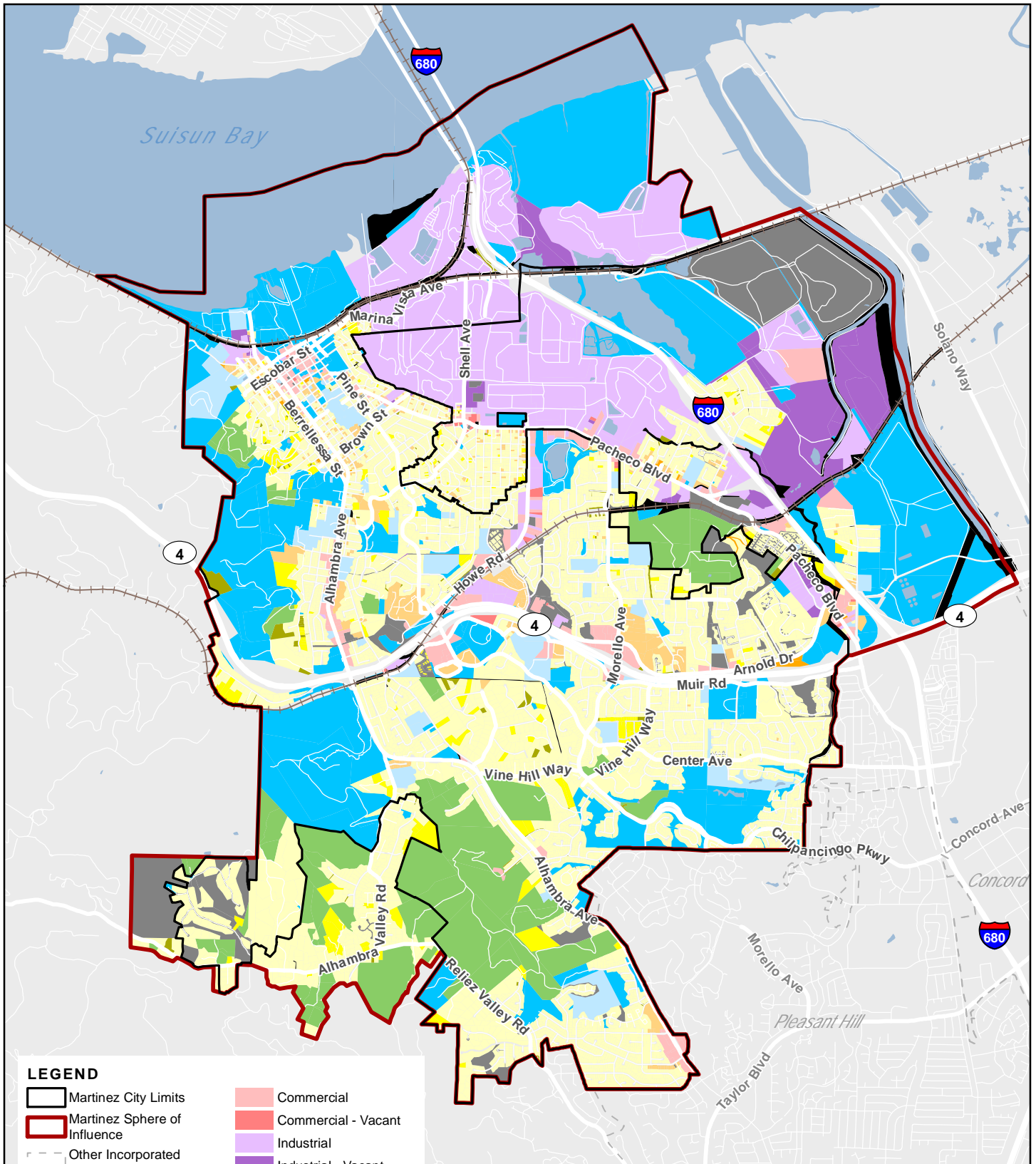
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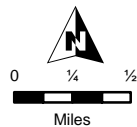


LEGEND

- | | |
|------------------------------------|----------------------------------|
| Martinez City Limits | Commercial |
| Martinez Sphere of Influence | Commercial - Vacant |
| Other Incorporated Areas | Industrial |
| Residential | Industrial - Vacant |
| Residential - Vacant | Institutional |
| Residential - Vacant - Unbuildable | Institutional - Government-Owned |
| Multiple Residential | Land |
| Multiple Residential - Vacant | Miscellaneous |
| | No Use Code Given |

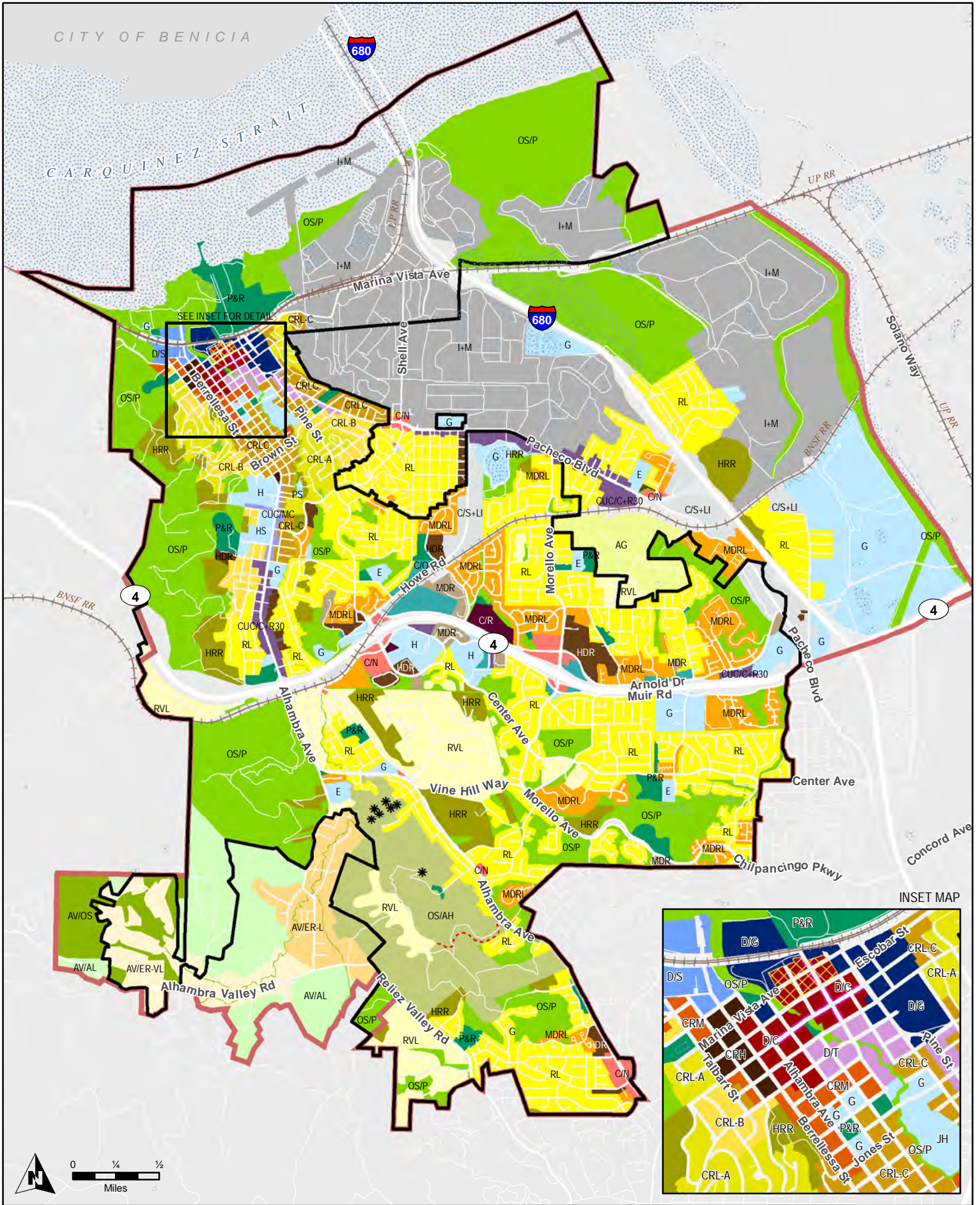
CITY OF MARTINEZ

Figure 4.10-1. Existing (Assessed) Land Uses



Sources: Contra Costa County Assessor, April 2022, Use Code and Use Code Descriptions; California State Geoportal; Contra Costa County GIS. Map date: July 29, 2022.

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Legend

- Martinez City Boundary
- Martinez Sphere of Influence
- Commercial Frontage
- Special Areas
- * Alhambra Hills Remote Homesites
- Alhambra Hills Access Path

Land Use Designations

Downtown

- D/C - Downtown Core
- D/G - Downtown Government
- D/S - Downtown Shoreline
- D/T - Downtown Transition

Central Residential

- CRL-A - Central Residential Low - A
- CRL-B - Central Residential Low - B
- CRL-C - Central Residential Low - C
- CRM - Central Residential Medium
- CRH - Central Residential High

Neighborhood Residential

- HRR - Hillside Rural Residential
- RVL - Residential Very Low
- RL - Residential Low
- MDRL - Residential Medium Low
- MDR - Residential Medium
- HDR - Residential High

Commercial

- C/N - Neighborhood Commercial
- C/R - Regional Commercial
- C/O+BP - Office & Business Park Commercial
- C/S+LI - Light Industrial & Service Commercial

Combined Use Corridors

- CUC/MC - Medical Center Combined Use Corridor
- CUC/C+R30 - Commercial & Multi-Family Residential Combined Use Corridor

Public & Quasi-Public Institutions

- E - Public Elementary School
- JH - Junior High School
- HS - High School
- PS - Private School
- G - Government Facilities
- H - Hospital/HMO Facility

Industrial Refining & Manufacturing

- I+M - Industrial & Manufacturing

Recreation & Open Space Preservation

- P&R - Parks & Recreation
- OS/P - Open Space Preservation
- OS/AH - Open Space/Alhambra Hills Specific Plan

Agricultural Lands

- AG - Agricultural Lands

Alhambra Valley

- AV/ER-VL - Alhambra Valley Estate Residential - Very Low Density 1/AC
- AV/ER-L - Alhambra Valley Estate Residential - Low Density 1-2/AC
- AV/AL - Alhambra Valley Agricultural Lands
- AV/OS - Alhambra Valley Open Space

Data Sources: City of Martinez General Plan Land Use layer 9-7-2016; USGS NHD; USGS National Map Roads; California State Geportal. Map date: July 29, 2022.

CITY OF MARTINEZ
Figure 4.10-2.
Existing General Plan Land Use Map

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This section of the EIR assesses potential effects, impacts, and mitigation measures related to noise and vibration associated with implementation of the proposed project. Acoustical Terminology, Noise Measurement Results and Traffic Noise Calculations are provided in Appendix C, Environmental Noise Assessment Appendices. There were no comments received during the NOP scoping period related to this environmental topic.

4.11.1 ENVIRONMENTAL SETTING

KEY TERMS

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given area consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of noise.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, defined as ten times the logarithm of the ratio of the sound pressure squared over the reference pressure squared.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic acoustic signal, expressed in cycles per second or Hertz.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
L_{eq}	Equivalent or energy-averaged sound level.
L_{max}	The highest root-mean-square (RMS) sound level measured over a given period of time.
L(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50 percent of the time during the one hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
Noise	Unwanted sound.
SEL	A rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy into a one-second event

FUNDAMENTALS OF ACOUSTICS

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn} , and shows very good correlation with community response to noise.

The day/night average level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10 decibel weighting applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment. CNEL is similar to L_{dn} , but includes a +3 dB penalty for evening noise. Table 4.11-1 lists several examples of the noise levels associated with common situations.

TABLE 4.11-1: TYPICAL NOISE LEVELS

Common Outdoor Activities	Noise Level (DBA)	Common Indoor Activities
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft)	--100--	
Gas Lawn Mower at 1 m (3 ft)	--90--	
Diesel Truck at 15 m (50 ft), at 80 km/hr (50 mph)	--80--	Food Blender at 1 m (3 ft) Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime	--70--	Vacuum Cleaner at 3 m (10 ft)
Gas Lawn Mower, 30 m (100 ft)		
Commercial Area	--60--	Normal Speech at 1 m (3 ft)
Heavy Traffic at 90 m (300 ft)		
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

SOURCE: CALTRANS, TECHNICAL NOISE SUPPLEMENT, TRAFFIC NOISE ANALYSIS PROTOCOL. NOVEMBER 2009.

EFFECTS OF NOISE ON PEOPLE

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction;
- Interference with activities such as speech, sleep, and learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference;

4.11 NOISE

- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6 dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

EXISTING NOISE LEVELS

Transportation

The greatest sources of existing noise within the Martinez area are attributable to transportation noise sources. Significant transportation facilities within or adjacent to the area include Interstate 680 (I-680), State Highway 4 (CA-4), Union Pacific and BNSF railroads, major arterials, local streets, and the Buchanan Field Airport.

The FHWA Highway Traffic Noise Prediction Model (FHWA-RD 77-108) was used to develop L_{dn} (24-hour average) noise contours for all highways and major roadways in the General Plan Study Area. The model is based upon the CALVENO noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver and the acoustical characteristics of the site. The FHWA Model predicts hourly L_{eq} values for free-flowing traffic conditions, and is generally considered to be accurate within 1.5 dB. To predict L_{dn} values, it is necessary to determine the hourly distribution of traffic for a typical 24-hour period.

Existing traffic volumes were obtained from the traffic modeling performed for the General Plan Study Area. Day/night traffic distributions were based upon continuous hourly noise measurement data. Caltrans vehicle truck counts were obtained for CA-4 and I-680. Using these data sources and the FHWA traffic noise prediction methodology, traffic noise levels were calculated for existing (2022) conditions. Table 4.11-2 shows the results of this analysis.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segments. In some locations sensitive receptors may be located at distances which vary from the assumed calculation distance and may experience shielding from intervening barriers or sound walls. However, the traffic noise analysis is believed to be representative of the majority of sensitive receptors located closest to the project-area roadway segments analyzed in this report.

The actual distances to noise level contours may vary from the distances predicted by the FHWA model due to roadway curvature, grade, shielding from local topography or structures, elevated roadways, or elevated receivers. The distances reported in Table 4.11-2 are generally considered to be conservative estimates of noise exposure along roadways in the City of Martinez. Figure 4.11-1 shows existing citywide traffic noise contours.

TABLE 4.11-2: PREDICTED EXISTING TRAFFIC NOISE LEVELS

Roadway	Segment	Noise Level at Closest Receptors (dB, Ldn) ¹	Distances to Traffic Noise Contours, Ldn (feet) ²		
			60 dB	65 dB	70 dB
Alhambra Ave	Rt 4 to Alhambra Valley Rd	61.5	162	75	35
Alhambra Ave	Alhambra Valley to Blue Ridge Dr	58.3	83	39	18
Alhambra Ave	Escobar St to Shell Ave/D St	54.8	52	24	11
Alhambra Ave	Shell Ave/D St to Rt 4	58.1	97	45	21
Arnold Dr	Morello Ave to I-680	37.9	14	7	3
Arnold Dr	Howe Rd to Morello Ave	51.3	45	21	10
Berrellessa St	Escobar St to Alhambra Ave	54.8	52	24	11
Center Ave	Morello Ave to Pacheco Blvd/I680	52.7	26	12	6
Center Ave	Rt 4 to Morello Ave	54.6	28	13	6
Court St	Escobar St to Pine St	56.8	70	33	15
EB Rt 4	West of Alhambra Ave	63.7	390	181	84
Escobar St	Alhambra Ave to Court St	45.8	31	14	7
Escobar St	Court St to Marina Vista Ave	55.0	37	17	8
Howe Rd	South of Pacheco Blvd	52.0	23	11	5
Marina Vista Ave	Alhambra Ave to Court St	48.0	62	29	13
Marina Vista Ave	Court St to Escobar St	55.6	56	26	12
Marina Vista Ave	Escobar St to Shell Ave	60.9	92	43	20
Marina Vista Ave	Shell Ave to I-680	38.3	147	68	32
Morello Ave	Pacheco Blvd to Rt 4	62.5	96	45	21
Morello Ave	Rt 4 to Center Ave	60.6	87	41	19
Morello Ave	South of Center Ave	62.2	112	52	24
Muir Rd	East of Morello Ave	53.5	64	29	14
Muir Rd	West of Morello Ave	42.7	12	6	3
NB I-680	Marina Vista Ave to Pacheco Blvd	68.4	1017	472	219
NB I-680	North of Marina Vista Ave	49.5	1045	485	225
Pacheco Blvd	Arthur Rd to Rt 4	48.5	85	39	18
Pacheco Blvd	Morello Ave to I-680	60.4	176	82	38
Pacheco Blvd	Pine St to Shell Ave	58.3	62	29	13
Pine St	Court St to Pacheco Blvd	56.9	62	29	13
Pine St	Pacheco Blvd to Shell Ave	54.4	48	22	10
Pine St	Shell Ave to Howe Rd	61.0	94	44	20

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TABLE 4.11-2: PREDICTED EXISTING TRAFFIC NOISE LEVELS

Roadway	Segment	Noise Level at Closest Receptors (dB, Ldn) ¹	Distances to Traffic Noise Contours, Ldn (feet) ²		
			60 dB	65 dB	70 dB
Shell Ave	Marina Vista Ave to Pacheco Blvd	53.7	76	35	16
Shell Ave	Pine St to Alhambra Ave	57.0	64	29	14
SR 4	West of Pacheco	71.6	1180	548	254

SOURCE: KITTELSON ASSOCIATES AND SAXELBY ACOUSTICS 2022.

NOTES:

1. TRAFFIC NOISE LEVELS ARE PREDICTED AT THE CLOSEST SENSITIVE RECEPTORS
2. DISTANCES TO TRAFFIC NOISE CONTOURS ARE MEASURED IN FEET FROM THE CENTERLINES OF THE ROADWAYS.

Other Noise Sources

Although transportation is the primary source of noise in Martinez, other sources of noise do exist. These sources include domestic activities (i.e. car alarms, loud music, barking dogs), construction and demolition, landscaping and maintenance activities, industrial businesses with outdoor operations, commercial businesses with outdoor entertainment, late-night activities, mechanical equipment, street sweepers, parking lot activities, and loading/unloading activities. Many of these noises can be as disruptive as background transportation noise, but are usually temporary and intermittent.

Railroad Noise Levels

In 2009 a study was conducted by Illingworth & Rodkin to measure train noise near a grade crossing and the Amtrak station downtown where the train sounds its horn frequently. A long-term noise measurement was made from 4:00 PM on January 26, 2009 to 2:00 PM on January 28, 2009. The noise measurement was located about 140 feet from the UPRR railroad tracks near Martinez Amtrak Station. This noise measurement location was about 175 feet south of the “at-grade” railroad crossing. Railroad train events, including train warning whistles, substantially increased noise levels at this location. Maximum instantaneous levels were typically 90 to 105 dBA L_{max} . Train warning horns and bus traffic at the bus station located about 400 feet from this noise measurement location were the major sources of environmental noise. Hourly average noise levels typically ranged from about 63 to 78 dBA L_{eq} during daytime hours and from about 45 to 75 dBA L_{eq} at night. Hourly average noise levels containing train events, especially during the nighttime, controlled the day-night average noise level calculated for the measurement period. The calculated day-night average noise level was 76 dBA L_{dn} .

Short-term (1-hour) daytime noise measurements were made to document the noise sources in the vicinity of the station. One site was located at a distance of about 540 feet south of the railroad tracks and five feet above the ground. The dominant source of noise at this location during the measurement was bus traffic and intermittent train horns. The resulting hourly average noise level was 63 dBA L_{eq} . The other location was at a distance of 140 feet from the railroad tracks. The primary noise sources at this location were bus traffic in the station, train pass-bys, and intermittent train horns. The resulting hourly average noise level was 72 dBA L_{eq} .

The maximum noise level at the long-term site was measured to be as high as 105 dBA as a result of railroad train warning horns. During the 1-hour observation on January 28, 2009, instantaneous maximum

noise levels measured at 140 feet from the railroad tracks were about 76 dBA as a result of train horns while waiting at the station, and 68 dBA during train pass-bys.

Aviation Noise Levels-Buchanan Field Airport

The effects of aircraft operations at Buchanan Field have been of concern to residents of the airport environs and local government agencies since the 1980s. Contra Costa County is the agency that has jurisdictional authority over the airport and adopted a comprehensive noise abatement and compatibility program for the Buchanan Field Airport in the late 1980s, which was subsequently updated in 2008. This program was prepared under Part 150 of the Federal Aviation Regulations (FAR Part 150), which is designed to reduce existing non-compatible land uses around the airport and prevent the introduction of additional non-compatible uses. The program was adopted by the County to respond to community concerns and noise complaints over individual aircraft operations, and is designed to eliminate noisier classes of aircraft from operating at the airport. The County sets maximum permitted noise levels for aircraft utilizing Buchanan Field, and provides enforcement and compliance provisions.

Noise exposure maps prepared and published in the 2008 Buchanan Field Airport Master Plan Update showed that existing 2005 noise levels up to 75 CNEL were experienced near the Airport. The Buchanan Field Airport Master Plan Update does not identify the Martinez area as containing existing noise sensitive land uses within the noise contours.

Fixed Noise Sources

The production of noise is a result of many industrial processes, even when the best available noise control technology is applied. Noise exposures within industrial facilities are controlled by federal and State employee health and safety regulations (OSHA and Cal-OSHA), but exterior noise levels may exceed locally acceptable standards. Commercial, recreational, and public service facility activities can also produce noise which affects adjacent sensitive land uses. These noise sources can be continuous and may contain tonal components which have a potential to annoy individuals who live nearby. In addition, noise generation from fixed noise sources may vary based upon climatic conditions, time of day and existing ambient noise levels.

In the City of Martinez, fixed noise sources typically include parking lots, loading docks, parks, schools, and other commercial/retail use noise sources (HVAC, exhaust fans, etc.).

From a land use planning perspective, fixed-source noise control issues focus upon two goals:

1. To prevent the introduction of new noise-producing uses in noise-sensitive areas, and
2. To prevent encroachment of noise sensitive uses upon existing noise-producing facilities.

The first goal can be achieved by applying noise level performance standards to proposed new noise-producing uses. The second goal can be met by requiring that new noise-sensitive uses in near proximity to noise-producing facilities include mitigation measures that would ensure compliance with noise performance standards.

Fixed noise sources which are typically of concern include but are not limited to the following:

- HVAC Systems
- Pump Stations
- Steam Valves
- Generators
- Air Compressors
- Conveyor Systems
- Pile Drivers
- Drill Rigs
- Welders
- Outdoor Speakers
- Chippers
- Loading Docks
- Cooling Towers/Evaporative Condensers
- Lift Stations
- Steam Turbines
- Fans
- Heavy Equipment
- Transformers
- Grinders
- Gas or Diesel Motors
- Cutting Equipment
- Blowers
- Amplified music and voice

The types of uses which may typically produce the noise sources described above, include, but are not limited to: wood processing facilities, pump stations, industrial/agricultural facilities, trucking operations, tire shops, auto maintenance shops, metal fabricating shops, shopping centers, drive-up windows, car washes, loading docks, public works projects, batch plants, bottling and canning plants, recycling centers, electric generating stations, race tracks, landfills, sand and gravel operations, special events such as concerts, and athletic fields. Typical noise levels associated with various types of stationary noise sources are shown in Table 4.11-3.

TABLE 4.11-3: TYPICAL STATIONARY SOURCE NOISE LEVELS

Use	Noise Level at 100 feet, Leq 1	Distance to Noise Contours, feet			
		50 dB Leq (No Shielding)	45 dB Leq (No Shielding)	50 dB Leq (With 5 dB Shielding)	45 dB Leq (With 5 dB Shielding)
Auto Body Shop	56 dB	200	355	112	200
Auto Repair (Light)	53 dB	141	251	79	141
Busy Parking Lot	54 dB	158	281	89	158
Cabinet Shop	62 dB	398	708	224	398
Car Wash	63 dB	446	792	251	446
Cooling Tower	69 dB	889	1,581	500	889
Loading Dock	66 dB	596	1,059	335	596
Lumber Yard	68 dB	794	1,413	447	794
Maintenance Yard	68 dB	794	1,413	447	794
Outdoor Music Venue	90 dB	10,000	17,783	5,623	10,000
Paint Booth Exhaust	61 dB	355	631	200	355
Skate Park	60 dB	316	562	178	316
School Playground / Neighborhood Park	54 dB	158	281	89	158
Truck Circulation	48 dB	84	149	47	84
Vendor Deliveries	58 dB	251	446	141	251

SOURCE: SAXELBY ACOUSTICS 2022.

NOTES:

1. ANALYSIS ASSUMES A SOURCE-RECEIVER DISTANCE OF APPROXIMATELY 100 FEET, NO SHIELDING, AND FLAT TOPOGRAPHY. ACTUAL NOISE LEVELS WILL VARY DEPENDING ON SITE CONDITIONS AND INTENSITY OF THE USE. THIS INFORMATION IS INTENDED AS A GENERAL RULE ONLY, AND IS NOT SUITABLE FOR FINAL SITE-SPECIFIC NOISE STUDIES.

Community Noise Survey

A community noise survey was conducted to document ambient noise levels at various locations throughout the City. Short-term noise measurements were conducted at seven locations on May 24, 2022. In addition, six continuous 24-hour noise monitoring sites were also conducted to record day-night statistical noise level trends. The data collected included the hourly average (L_{eq}), median (L_{50}), and the maximum level (L_{max}) during the measurement period. Noise monitoring sites and the measured noise levels at each site are summarized in Table 4.11-4 and Table 4.11-5. Figure 4.11-2 shows the locations of the noise monitoring sites.

Community noise monitoring equipment included Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meters equipped with LDL ½" microphones. The measurement systems were calibrated using an LDL Model CAL200 acoustical calibrator before and after testing. The measurement equipment meets all of the pertinent requirements of the American National Standards Institute (ANSI) for Type 1 (precision) sound level meters.

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The results of the community noise survey shown in Table 4.11-4 and 4.11-5 indicate that existing transportation (traffic) noise sources were the major contributor of noise observed during daytime hours, especially during vehicle pass-bys.

TABLE 4.11-4: EXISTING CONTINUOUS 24-HOUR AMBIENT NOISE MONITORING RESULTS

Site	Location	Ldn (dBA)	Measured Hourly Noise Levels, dBA					
			Daytime (7:00 am - 10:00 pm)			Nighttime (10:00 pm – 7:00 am)		
			Leq	L50	Lmax	Leq	L50	Lmax
1	Marina Vista Avenue	68	66	57	86	61	47	80
2	Berrellesa Street	68	66	59	87	60	42	83
3	Center Avenue	63	62	54	81	55	49	74
4	Alhambra Avenue	70	69	66	83	62	49	76
5	CA-120	71	68	65	88	65	64	77
6	Pacheo Boulevard	66	65	51	83	58	45	79

SOURCE: SAXELBY ACOUSTICS 2022.

TABLE 4.11-5: EXISTING SHORT-TERM COMMUNITY NOISE MONITORING RESULTS

Site	Location	Time ¹	Measured Sound Level, dB			Notes
			L _{EQ}	L ₅₀	L _{MAX}	
1	Pacheco Boulevard	12:39 AM	71	70	83	Primary noise source is traffic noise from Pacheco Boulevard.
2	Shell Avenue	12:54 AM	67	65	77	Primary noise source is traffic noise from Shell Avenue.
3	Howe Road	11:57 AM	65	59	82	Primary noise source is traffic noise from Howe Road.
4	Pine Street	12:38 AM	57	50	72	Primary noise sources are traffic noise from Pine Street.; Delivery Truck driving L _{max} .
5	Morello Avenue	11:44 AM	63	59	78	Primary noise sources are traffic noise from Morello Avenue.
6	Myers Lane	10:05 AM	54	54	66	Primary noise sources are traffic noise from I-680.
7	Alhambra Avenue	12:24 PM	61	58	73	Primary noise sources are traffic noise from Alhambra Avenue.; Fire Truck siren driving L _{max} .
8	Hidden Lakes Park	2:15 PM	53	52	63	Primary noise sources are traffic noise from Chilpancingo Parkway.
9	Alhambra Valley Road	10:52 AM	63	51	81	Primary noise source is traffic noise from Alhambra Valley Road.; Honking driving the L _{max} .

SOURCE: SAXELBY ACOUSTICS 2022.

NOTES:

1. ALL COMMUNITY NOISE MEASUREMENT SITES HAVE A TEST DURATION OF 10:00 MINUTES.

4.11.2 REGULATORY SETTING

FEDERAL

Federal Highway Administration (FHWA)

The FHWA has developed noise abatement criteria that are used for federally funded roadway projects or projects that require federal review. These criteria are discussed in detail in Title 23 Part 772 of the Federal Code of Regulations (23CFR772).

Environmental Protection Agency (EPA)

The EPA has identified the relationship between noise levels and human response. The EPA has determined that over a 24-hour period, an L_{eq} of 70 dBA will result in some hearing loss. Interference with activity and annoyance will not occur if exterior levels are maintained at an L_{eq} of 55 dBA and interior levels at or below 45 dBA. Although these levels are relevant for planning and design and useful for informational purposes, they are not land use planning criteria because they do not consider economic cost, technical feasibility, or the needs of the community.

The EPA has set 55 dBA L_{dn} as the basic goal for residential environments. However, other federal agencies, in consideration of their own program requirements and goals, as well as difficulty of actually achieving a goal of 55 dBA L_{dn} , have generally agreed on the 65 dBA L_{dn} level as being appropriate for residential uses. At 65 dBA L_{dn} activity interference is kept to a minimum, and annoyance levels are still low. It is also a level that can realistically be achieved.

Department of Housing and Urban Development (HUD)

HUD was established in response to the Urban Development Act of 1965 (Public Law 90-448). HUD was tasked by the Housing and Urban Development Act of 1965 (Public Law 89-117) “to determine feasible methods of reducing the economic loss and hardships suffered by homeowners as a result of the depreciation in the value of their properties following the construction of airports in the vicinity of their homes.”

HUD first issued formal requirements related specifically to noise in 1971 (HUD Circular 1390.2). These requirements contained standards for exterior noise levels along with policies for approving HUD-supported or assisted housing projects in high noise areas. In general, these requirements established the following three zones:

- 65 dBA L_{dn} or less - an acceptable zone where all projects could be approved.
- Exceeding 65 dBA L_{dn} but not exceeding 75 dBA L_{dn} - a normally unacceptable zone where mitigation measures would be required and each project would have to be individually evaluated for approval or denial. These measures must provide 5 dBA of attenuation above the attenuation provided by standard construction required in a 65 to 70 dBA L_{dn} area and 10 dBA of attenuation in a 70 to 75 dBA L_{dn} area.
- Exceeding 75 dBA L_{dn} - an unacceptable zone in which projects would not, as a rule, be approved.

HUD’s regulations do not include interior noise standards. Rather a goal of 45 dBA L_{dn} is set forth and attenuation requirements are geared towards achieving that goal. HUD assumes that using standard construction techniques, any building will provide sufficient attenuation so that if the exterior level is 65 dBA L_{dn} or less, the interior level will be 45 dBA L_{dn} or less. Thus, structural attenuation is assumed at 20 dBA. However HUD regulations were promulgated solely for residential development requiring government funding and are not related to the operation of schools or churches.

The federal government regulates occupational noise exposure common in the workplace through the Occupational Health and Safety Administration (OSHA) under the EPA. Noise exposure of this type is dependent on work conditions and is addressed through a facility’s or construction contractor’s health and safety plan. With the exception of construction workers involved in facility construction, occupational noise is irrelevant to this study and is not addressed further in this document.

Federal Transit Administration

The Federal Transit Administration (FTA) has identified vibration impact criteria for sensitive buildings, residences, and institutional land uses near rail transit and railroads. The thresholds for residences and buildings where people normally sleep (e.g., nearby residences) are 72 VdB (vibration velocity in decibels) for frequent events (more than 70 events of the same source per day), 75 VdB for occasional events (30

to 70 vibration events of the same source per day), and 80 VdB for infrequent events (less than 30 vibration events of the same source per day). These criteria are summarized in Table 4.11-6.

TABLE 4.11-6: GROUNDBORNE VIBRATION IMPACT CRITERIA

Land Use Category	Groundborne Vibration Impact Levels (VdB re 1 μinch/sec, RMS)		
	Frequent Events ¹	Occasional Events ²	Infrequent Events ³
Category 1 Buildings where vibration would interfere with interior operations.	65 VdB ⁴	65 VdB ⁴	65 VdB ⁴
Category 2 Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB
Category 3 Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB

SOURCE: U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL TRANSIT ADMINISTRATION, TRANSIT NOISE AND VIBRATION IMPACT ASSESSMENT, MAY 2006, FTA-VA-90-1003-06.

NOTES:

1. "FREQUENT EVENTS" IS DEFINED AS MORE THAN 70 VIBRATION EVENTS OF THE SAME SOURCE PER DAY. MOST RAPID TRANSIT PROJECTS FALL INTO THIS CATEGORY.
2. "OCCASIONAL EVENTS" IS DEFINED AS BETWEEN 30 AND 70 VIBRATION EVENTS OF THE SAME SOURCE PER DAY. MOST COMMUTER TRUNK LINES HAVE THIS MANY OPERATIONS.
3. "INFREQUENT EVENTS" IS DEFINED AS FEWER THAN 30 VIBRATION EVENTS OF THE SAME KIND PER DAY. THIS CATEGORY INCLUDES MOST COMMUTER RAIL BRANCH LINES.
4. THIS CRITERION LIMIT IS BASED ON LEVELS THAT ARE ACCEPTABLE FOR MOST MODERATELY SENSITIVE EQUIPMENT SUCH AS OPTICAL MICROSCOPES. VIBRATION SENSITIVE MANUFACTURING OR RESEARCH SHOULD ALWAYS REQUIRE DETAILED EVALUATION TO DEFINE THE ACCEPTABLE VIBRATION LEVELS. ENSURING LOW VIBRATION LEVELS IN A BUILDING REQUIRES SPECIAL DESIGN OF HVAC SYSTEMS AND STIFFENED FLOORS.

STATE

California Department of Transportation (Caltrans)

Caltrans has adopted policy and guidelines relating to traffic noise as outlined in the Traffic Noise Analysis Protocol (Caltrans 2020). The noise abatement criteria specified in the protocol are the same as those specified by FHWA.

There are no applicable State plans, policies, regulations, or laws related to groundborne vibration from construction activities, but guidance developed by the California Department of Transportation (Caltrans) has been used in past construction vibration impact assessments of projects developed in the Study Area. Caltrans uses a vibration limit of 12.7 mm/sec (0.5 inches/sec), PPV for buildings structurally sound and designed to modern engineering standards. A conservative vibration limit of 5 mm/sec (0.2 inches/sec), PPV has been used for buildings that are found to be structurally sound but structural damage is a major concern. For historic buildings or buildings that are documented to be structurally weakened, a

conservative limit of 2 mm/sec (0.08 inches/sec), PPV is often used to provide the highest level of protection. All of these limits have been used successfully and compliance to these limits has not been known to result in appreciable structural damage. All vibration limits referred to herein apply on the ground level and take into account the response of structural elements (i.e., walls and floors) to ground-borne excitation.

Governor’s Office of Planning and Research (OPR)

OPR has developed guidelines for the preparation of general plans (Office of Planning and Research, 2017). The guidelines include land use compatibility guidelines for noise exposure.

California Building Standards Code (CBSC)

The State of California establishes exterior sound transmission control standards for new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family dwellings as set forth in the 2013 California Building Standards Code (Title 24, Part 2, Section 1207). Interior noise levels attributable to exterior environmental noise sources shall not exceed 45 dBA L_{dn} in any habitable room. When exterior noise levels (the higher of existing or future) where residential structures are to be located exceed 60 dBA L_{dn} , a report must be submitted with the building plans describing the noise control measures that have been incorporated into the design of the project to meet the noise limit.

The State establishes exterior sound transmission control standards for new hotels, motels, dormitories, apartment houses, and dwellings (other than detached single-family) as set forth in the 2013 California Building Code (Chapter 12, Section 1207). Dwelling units are required to be separated from one another or from public or service areas by walls, ceilings, and floors with a sound transmission class of not less than 50 for air-borne noise. Penetrations or openings for appliances and services shall be sealed, lined, insulated, or otherwise treated to maintain the required ratings.

LOCAL

City of Martinez General Plan

The adopted City of Martinez General Plan establishes goals and policies related to noise in the Noise Element.

Municipal Code Chapter 8.34 – Noise Control

Chapter 8.34 of the Municipal Code implements the City’s adopted Noise Element. Chapter 8.34 establishes the City’s mechanisms to control noise, including noise standards, noise regulations, exceptions, noise standards for new construction, a process for permits for excessive noise, and noise measurement techniques and provides for a noise control officer.

Section 8.34.020 establishes the following noise standards:

1. A day-night noise level (L_{dn}) of 45 dB is the standard for interior noise levels. An L_{dn} of 45 dBA is achieved by an allowable interior noise level of 35 dBA between 10 p.m. — 7 a.m. and 45 dBA between 7 a.m. — 10 p.m.
2. A day-night level (L_{dn}) of 60 dB is the standard for exterior noise. An L_{dn} of 60 dBA is a maximum noise level of 50 dBA between 10 p.m. — 7 a.m. and 60 dBA between 7 a.m. — 10 p.m.

The City's noise regulations prohibit excessive noise and also prohibit certain noises and noise-causing activities before 7 a.m. and after 7 p.m. on weekdays, except holidays.

4.11.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the project will have a significant impact related to noise if it will:

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generate excessive groundborne vibration or groundborne noise levels; and/or
- 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.

Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local project criteria or ordinances, or substantially increase noise levels at noise sensitive land uses. The potential increase in traffic noise from the project is a factor in determining significance. Research into the human perception of changes in sound level indicates the following:

- A 3-dB change is barely perceptible,
- A 5-dB change is clearly perceptible, and
- A 10-dB change is perceived as being twice or half as loud.

A limitation of using a single noise level increase value to evaluate noise impacts is that it fails to account for pre-project-noise conditions.

TRANSPORTATION NOISE INCREASE CRITERIA

Table 4.11-7 is based upon recommendations made by the Federal Interagency Committee on Noise (FICON) to provide guidance in the assessment of changes in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, it has been accepted that they are applicable to all sources of noise described in terms of cumulative noise exposure metrics such as the Ldn.

TABLE 4.11-7: SIGNIFICANCE OF CHANGES IN NOISE EXPOSURE

Ambient Noise Level Without Project, Ldn	Increase Required for Significant Impact
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

SOURCE: FEDERAL INTERAGENCY COMMITTEE ON NOISE (FICON).

Based on the Table 4.11-7, an increase in the traffic noise level of 1.5 dB or more would be significant where the pre-project noise level exceeds 65 dB Ldn. Extending this concept to higher noise levels, an increase in the traffic noise level of 1.5 dB or more may be significant where the pre-project traffic noise level exceeds 75 dB Ldn. The rationale for the Table 4.11-7 criteria is that, as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause annoyance.

NON-TRANSPORTATION NOISE INCREASE CRITERIA

A significant impact will occur if the project results in an exceedance of the noise level standards contained in Table 9-6 of the General Plan Noise Element, or the project will result in an increase in ambient noise levels by more than 3 dB, whichever is greater.

VIBRATION STANDARDS

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the Peak Particle Velocity (PPV) and another is the Root Mean Square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration. For purposes of this EIR and the General Plan Update, a PPV descriptor with units of mm/sec or in/sec was used to evaluate construction generated vibration for building damage and human complaints. Table 4.11-8 displays the reactions of people and the effects on buildings that continuous vibration levels produce.

TABLE 4.11-8: REACTION OF PEOPLE AND DAMAGE TO BUILDINGS FROM CONTINUOUS OR FREQUENT INTERMITTENT VIBRATION LEVELS

Velocity Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.01	Barely perceptible	No effect
0.04	Distinctly perceptible	Vibration unlikely to cause damage of any type to any structure
0.08	Distinctly perceptible to strongly perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
0.1	Strongly perceptible	Virtually no risk of damage to normal buildings
0.3	Strongly perceptible to severe	Threshold at which there is a risk of damage to older residential dwellings such as plastered walls or ceilings
0.5	Severe - Vibrations considered unpleasant	Threshold at which there is a risk of damage to newer residential structures

SOURCE: TRANSPORTATION AND CONSTRUCTION VIBRATION GUIDANCE MANUAL, CALIFORNIA DEPARTMENT OF TRANSPORTATION, SEPTEMBER 2013.

Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Construction activities can cause vibration that varies in intensity depending on several factors. The use of pile driving and vibratory compaction equipment typically generates the highest construction related groundborne vibration levels. Because of the impulsive nature of such activities, the PPV descriptor has been routinely used to measure and assess groundborne vibration and almost exclusively to assess the potential of vibration to induce structural damage and the degree of annoyance for humans.

The two primary concerns with construction-induced vibration, the potential to damage a structure and the potential to interfere with the enjoyment of life, are evaluated against different vibration limits. Studies have shown that the threshold of perception for average persons is in the range of 0.008 to 0.012 in/sec PPV. Human perception to vibration varies with the individual and is a function of physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels such as people in an urban environment may tolerate a higher vibration level.

Structural damage can be classified as cosmetic only, such as minor cracking of building elements, or may threaten the integrity of the building. Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher and there is no general consensus as to what amount of vibration may pose a threat for structural damage to the building. Construction-induced vibration that can be detrimental to the building is very rare and has only been observed in instances where the structure is at a high state of disrepair and the construction activity occurs immediately adjacent to the structure.

4.11 NOISE

Railroad operations are potential sources of substantial ground vibration depending on distance, the type and the speed of trains, and the type of railroad track. People’s response to ground vibration has been correlated best with the RMS velocity level of the ground. The velocity of the ground is expressed on the decibel scale. The reference velocity is 1×10^{-6} in/sec RMS, which equals 0 VdB, and 1 in/sec equals 120 VdB. Although not a universally accepted notation, the abbreviation “VdB” is used in this document for vibration levels in decibels to reduce the potential for confusion with airborne sound levels in decibels.

Typical background vibration levels in residential areas are usually 50 VdB or lower, well below the threshold of perception for most humans (60 to 70 VdB). Perceptible vibration levels inside residences are attributed to the operation of heating and air conditioning systems, door slams, and foot traffic. Construction activities, train operations, and heavy truck traffic are some of the most common external sources of vibration that can be perceptible inside residences. Table 4.11-9 illustrates some common sources of vibration and the association to human perception or the potential for structural damage.

TABLE 4.11-9: TYPICAL LEVELS OF GROUNDBORNE VIBRATION

Human/Structural Response	Velocity Level, VdB	Typical Events (50-foot setback)
Threshold, minor cosmetic damage	100	Blasting, pile driving, vibratory compaction equipment Heavy tracked vehicles (Bulldozers, cranes, drill rigs)
Difficulty with tasks such as reading a video or computer screen	90	Commuter rail, upper range
Residential annoyance, infrequent events Residential annoyance, occasional events	80	Rapid transit, upper range Commuter rail, typical Bus or truck over bump or on rough roads
Residential annoyance, frequent events Approximate human threshold of perception to vibration	70	Rapid transit, typical Buses, trucks and heavy street traffic
Lower limit for equipment ultra-sensitive to vibration	50	Background vibration in residential settings in the absence of activity

SOURCE: TRANSIT NOISE AND VIBRATION IMPACT ASSESSMENT, US DEPARTMENT OF TRANSPORTATION FEDERAL TRANSIT ADMINISTRATION, MAY 2006.

IMPACTS AND MITIGATION MEASURES

Impact 4.11-1: Traffic noise associated with the General Plan Update could expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies or result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project (Less than Significant)

The FHWA Highway Traffic Noise Prediction Model (FHWA-RD 77-108) was used to develop Ldn (24-hour average) noise contours for all highways and major roadways in the General Plan Study Area. The model is based upon the CALVENO noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA Model predicts hourly Leq values for free-flowing traffic conditions, and is generally considered to be accurate within 1.5 dB. To predict L_{dn} values, it is necessary to determine the hourly distribution of traffic for a typical 24-hour period.

Baseline (2020) and General Plan Update buildout in 2040 volumes were obtained from the traffic modeling performed for the General Plan Study Area. While the horizon buildout year for the General Plan Update is 2035, the year 2040 is used for analysis to be consistent with available traffic modeling data. Day/night traffic distributions were based upon continuous hourly noise measurement data and Saxelby Acoustics file data for similar roadways. Using these data sources and the FHWA traffic noise prediction methodology, traffic noise levels were calculated for existing conditions.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segment. In some locations sensitive receptors may be located at distances which vary from the assumed calculation distance and may experience shielding from intervening barriers or sound walls. However, the traffic noise analysis is representative of the majority of sensitive receptors located closest to the project-area roadway segments analyzed in this analysis.

The actual distances to noise level contours may vary from the distances predicted by the FHWA model due to roadway curvature, grade, shielding from local topography or structures, elevated roadways, or elevated receivers.

Table 4.11-10 shows the future noise levels and the increase in noise levels associated with traffic on the local roadway network under the proposed General Plan Update, versus the existing (Baseline 2020) conditions.

Figure 4.11-3 displays the predicted traffic noise levels for major roadways throughout the Study Area. As shown in Table 4.11-10, noise levels on major roadways throughout the Study Area are predicted to increase. The increase in noise levels is associated with additional traffic on the local roadway network under buildout of the proposed General Plan Update.

Buildout of the General Plan Update may contribute to an exceedance of the City's transportation noise standards and/or result in significant increases in traffic noise levels at existing sensitive receptors. As indicated by Tables 4.11-10, the related traffic noise level increases with a circulation system buildout of

the General Plan Update are predicted to increase between 0.2 to 3.4 dB versus the Baseline (2020) conditions.

The Noise & Air Quality Element of the General Plan Update contains various policies and implementation measures to reduce noise impacts throughout the Study Area. Specifically, Goal NA-G-4 calls for reduced noise from traffic. Policy NA-P-4.1 encourages the use of quieter pavement to be included in new developments whenever possible. Policy NA-P-4.2 ensures vehicle amplification systems are not heard within 50 feet or more of the vehicle. Policy NA-P-4.3 supports the control of excessive exhaust noise. Measure NA-I-4.3a ensures the enforcement of Section 27002 and 27150 of the California Motor Vehicle Code when noises from vehicles and or exhaust are deemed to exceed allowable limits. Policy N-P-1.1 ensures implementation of the City's interior and exterior noise level standards for noise-sensitive areas of new uses affected by transportation-related noise. Measure NA-I-1.1a requires the evaluation of new development proposals for compliance with the City's noise standards, and where necessary, requires preparation of a noise study to determine compliance. Policy NA-P-2.1 ensures the City maintains a pattern of land uses that separates noise-sensitive land uses from major traffic noise sources, to the extent feasible. Implementation of the General Plan Update proposed policies and implementation measures would reduce noise and land use compatibility impacts from vehicular traffic noise sources and would ensure that new development is designed to include noise-attenuating features. As shown in Table 4.11-10, the traffic noise increases associated with the General Plan Update would not exceed the applicable noise exposure criteria. Therefore, the General Plan Update would have a **less than significant** impact relative to traffic noise on existing noise-sensitive uses in the City.

TABLE 4.11-10: BASELINE (2020) VS. PROPOSED 2040 GENERAL PLAN

Roadway	Segment	Noise Levels (Ldn, dB) at Nearest Sensitive Receptors				
		Baseline (2020)	Proposed GP	Change	Criteria1	Significant?
Alhambra Ave	Rt 4 to Alhambra Valley Rd	61.5	62.3	0.8	+3 dBA	No
Alhambra Ave	Alhambra Valley to Blue Ridge Dr	58.3	59.8	1.5	+5 dBA	No
Alhambra Ave	Escobar St to Shell Ave/D St	54.8	57.8	3.0	+5 dBA	No
Alhambra Ave	Shell Ave/D St to Rt 4	58.1	59.2	1.1	+5 dBA	No
Arnold Dr	Morello Ave to I-680	37.9	39.1	1.2	+5 dBA	No
Arnold Dr	Howe Rd to Morello Ave	51.3	51.8	0.5	+5 dBA	No
Berrellessa St	Escobar St to Alhambra Ave	54.8	56.8	2.0	+5 dBA	No
Center Ave	Morello Ave to Pacheco Blvd/I680	52.7	51.5	-1.2	+5 dBA	No
Center Ave	Rt 4 to Morello Ave	54.6	55.1	0.5	+5 dBA	No
Court St	Escobar St to Pine St	56.8	58.7	1.9	+5 dBA	No
EB Rt 4	West of Alhambra Ave	63.7	64.2	0.5	+3 dBA	No
Escobar St	Alhambra Ave to Court St	45.8	47.3	1.5	+5 dBA	No
Escobar St	Court St to Marina Vista Ave	55.0	55.7	0.7	+5 dBA	No
Howe Rd	South of Pacheco Blvd	52.0	55.0	3.0	+5 dBA	No
Marina Vista Ave	Alhambra Ave to Court St	48.0	48.4	0.4	+5 dBA	No
Marina Vista Ave	Court St to Escobar St	55.6	56.4	0.8	+5 dBA	No
Marina Vista Ave	Escobar St to Shell Ave	60.9	61.2	0.3	+3 dBA	No
Marina Vista Ave	Shell Ave to I-680	38.3	39.3	1.0	+5 dBA	No
Morello Ave	Pacheco Blvd to Rt 4	62.5	62.7	0.2	+3 dBA	No
Morello Ave	Rt 4 to Center Ave	60.6	60.9	0.3	+3 dBA	No
Morello Ave	South of Center Ave	62.2	62.6	0.4	+3 dBA	No
Muir Rd	East of Morello Ave	53.5	53.5	0.0	+5 dBA	No
Muir Rd	West of Morello Ave	42.7	42.7	0.0	+5 dBA	No
NB I-680	Marina Vista Ave to Pacheco Blvd	68.4	69.5	1.1	+1.5 dBA	No
NB I-680	North of Marina Vista Ave	49.5	50.7	1.2	+5 dBA	No
Pacheco Blvd	Arthur Rd to Rt 4	48.5	51.9	3.4	+5 dBA	No
Pacheco Blvd	Morello Ave to I-680	60.4	59.7	-0.7	+3 dBA	No
Pacheco Blvd	Pine St to Shell Ave	58.3	57.5	-0.8	+5 dBA	No
Pine St	Court St to Pacheco Blvd	56.9	57.9	1.0	+5 dBA	No
Pine St	Pacheco Blvd to Shell Ave	54.4	56.2	1.8	+5 dBA	No
Pine St	Shell Ave to Howe Rd	61.0	61.7	0.7	+3 dBA	No
Shell Ave	Marina Vista Ave to Pacheco Blvd	53.7	55.3	1.6	+5 dBA	No
Shell Ave	Pine St to Alhambra Ave	57.0	58.3	1.3	+5 dBA	No

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM KITTELSON & ASSOCIATES, INC., CALTRANS, AND SAXELBY ACOUSTICS 2022.

NOTES:

1. WHERE EXISTING NOISE LEVELS ARE LESS THAN 60 DB AN INCREASE OF 5 DB WOULD BE A SIGNIFICANT INCREASE. WHERE EXISTING NOISE LEVELS EXCEED 60 DB BUT ARE LESS THAN 65 DB, AN INCREASE OF 3 DB OR MORE WOULD BE SIGNIFICANT. ADDITIONALLY, ANY INCREASE CAUSING NOISE LEVELS TO EXCEED THE CITY'S NORMALLY ACCEPTABLE 60 DB LDN NOISE LEVEL STANDARD AT AN EXISTING OUTDOOR ACTIVITY

AREA OF A RESIDENTIAL USE WOULD ALSO BE SIGNIFICANT. WHERE EXISTING NOISE LEVELS EXCEED 65 DB, AN INCREASE OF 1.5 DB OR MORE WOULD BE SIGNIFICANT.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Noise & Air Quality Element

Goals

Goal NA-G-4 Reduce noise from traffic.

Policies

Policy NA-P-1.1 The interior and exterior noise level standards for noise-sensitive areas of new uses affected by transportation-related noise are as follows:

1. For traffic noise within Martinez, L_{dn} and peak-hour L_{eq} values are estimated to be approximately similar. Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions.
2. Outdoor activity areas for single-family residential uses are defined as backyards. For large parcels or residences with no clearly defined outdoor activity area, the standard shall be applicable within a 100-foot radius of the residence.
3. For multi-family residential uses, and for mixed-use projects that include residential units, the exterior noise level standard shall be applied at the common outdoor recreation area, such as at pools, play areas or tennis courts.
4. Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn} or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn} may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.
5. Outdoor activity areas of transient lodging facilities include swimming pool and picnic areas.
6. Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
7. Only the exterior spaces of these uses designated for employee or customer relaxation have any degree of sensitivity to noise.

NA-P-2.1 Maintain a pattern of land uses that separates noise-sensitive land uses from major traffic noise sources, to the extent feasible.

- NA-P-2.2 New development should be site planned and architecturally designed to minimize and mitigate indoor and exterior noise and noise impacts on neighboring uses where feasible.
- NA-P-2.3 Discourage the establishment of acoustically incompatible land uses in juxtaposition or adjacency to each other, when possible.
- NA-P-2.4 Discourage land use patterns and traffic patterns that expose sensitive noise receptors (hospitals, schools, churches, senior care uses, etc.) to noise levels that exceed noise standards and the City’s Noise Control Ordinance.
- NA-P-2.5 Use open space, wherever practical, to isolate noise sources from sensitive land uses by the employment of adequate separation distances.
- NA-P-2.6 Protect parks and recreational areas from excessive noise to permit the enjoyment of sports and other leisure time and recreational activities.
- NA-P-4.1 Select quieter pavement that also meets other criteria established by City pavement standards.
- NA-P-4.2 Control the sound of vehicle amplification systems so that noise is not heard within 50 feet or more of the vehicle.
- NA-P-4.3 Control excessive exhaust noise.

Implementation Measures

- NA-I-1.1a Evaluate new development proposals for compliance with the standards established in Table 9-5. Where necessary, the City may require preparation of a noise study to determine compliance.

Table 9-5: Maximum Noise Levels for New Uses Affected by Traffic Noise

New Land Use	Outdoor Activity Areas -- Ldn	Interior Spaces- Ldn/Peak Hour Leq1	Notes
All Residential	60-65	45	2, 3, 4
Transient Lodging	65	45	5
Hospitals & Nursing Homes	60	45	6
Theaters & Auditoriums	—	35	
Churches, Meeting Halls, Schools, Libraries, etc.	60	40	
Office Buildings	65	45	7
Commercial Buildings	65	50	7
Playgrounds, Parks, etc.	70	—	
Industrial	65	50	7
Note: The numbers in the notes column correspond to numbers listed under Noise & Air Quality Policy N-P-1.2			

- NA-I-3.1a Require feasible engineering noise control measures identified as mitigation measures in environmental impact reports or mitigated negative declarations on proposed projects be incorporated and adhered to prior to project occupancy.
- NA-I-3.1b When appropriate and feasible, implement actions, such as quiet zones to reduce the impacts of train noise near Downtown and use best available or practical control technology to minimize noise.
- NA-I-3.1c Continue working collaboratively with transportation, County, and other agencies to reduce noise from existing and future facilities by considering noise reduction strategies related to design and location of the facilities.
- NA-I-4.1a During selection of pavement contracts and new development select quieter pavement types whenever possible.
- NA-I-4.3a Enforce Section 27002 and 27150 of the California Motor Vehicle Code when noises from vehicles and or exhaust are deemed to exceed allowable limits.

Impact 4.11-2: Stationary noise sources associated with the General Plan Update could expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies or result in a substantial permanent or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (Less than Significant)

Implementation of the General Plan Update could result in the future development of land uses that generate noise levels in excess of applicable City noise standards for non-transportation noise sources. Such land uses may include commercial area loading docks, industrial uses, HVAC equipment, car washes, daycare facilities, auto repair, as well as recreational uses. While the General Plan Update does not specifically propose any new noise generating uses, the General Plan Update does allow development and redevelopment in accordance with the Land Use Map, which may result in new noise sources and could expose sensitive uses to elevated noise levels. New projects, which may include stationary noise sources such as automotive and truck repair facilities, tire installation centers, car washes, loading docks, corporation yards, parks, and play fields, may create noise levels in excess of the City's standards.

The proposed General Plan Update includes policies and implementation measures that are intended to reduce noise associated with stationary noise sources. Policy NA-P-1.2 sets maximum interior and exterior noise level standards for noise-sensitive areas of new uses affected by non-transportation related noise. Policy NA-P-2.1 ensures a pattern of land uses that separates noise-sensitive land uses. Policy NA-P-2.2 supports new development to be site planned and architecturally designed to minimize and mitigate indoor and exterior noise and noise impacts on neighboring uses where feasible. Policy NA-P-2.3 discourages the establishment of acoustically incompatible land uses in juxtaposition or adjacency to each other, when possible. Policy NA-P-2.4 discourages land use patterns and traffic patterns that expose sensitive noise receptors (hospitals, schools, churches, senior care uses, etc.) to noise levels that exceed

noise standards and the City's Noise Control Ordinance. Policy NA-P-2.5 encourages the use of open space, wherever practical, to isolate noise sources from sensitive land uses by the employment of adequate separation distances. Policy NA-P-2.6 requires the protection of parks and recreational areas from excessive noise to permit the enjoyment of sports and other leisure time and recreational activities. Policy NA-P-1.4 requires new development to be responsible for compliance with City noise standards. Policy NA-P-3.3 recommends the use of noise-mitigating devices, such as sound wall barriers, landscaping, earth berms, sound walls, mufflers, sound traps, baffles, and/or other noise reduction techniques as conditions of development approval to reduce noise intrusion from transportation and fixed sources. Measure N-I-3.1a requires adherence to feasible engineering noise control measures identified as mitigation measures in environmental impact reports or mitigated negative declarations on proposed projects be incorporated prior to project occupancy.

All future development projects would be required to comply with policies and implementation measures included in the General Plan Update and the City's Noise Control Ordinance. Implementation of the General Plan Update policies and implementation measures would reduce noise associated with stationary noise sources through a range of measures and approaches. These noise-related policies include requirements for the preparation of project-specific noise studies, compliance with adopted City standards and thresholds for interior and exterior noise level exposure, the use of mitigation measures and techniques to reduce noise exposure, and land use compatibility standards. Implementation of the proposed goals, policies, and implementation measures of the General Plan Update would reduce noise impacts from stationary noise sources to a **less than significant** level.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Noise & Air Quality Element

Policy

- NA-P-1.2 The interior and exterior noise level standards for noise-sensitive areas of new uses affected by non-transportation related noise are as follows:
1. Outdoor activity areas for single-family residential uses are defined as backyards. For large parcels or residences with no clearly defined outdoor activity area, the standard shall be applicable within a 100-foot radius of the residence.
 2. For multi-family residential uses, the exterior noise level standard shall be applied at the common outdoor recreation area, such as at pools, play areas or tennis courts. Where such areas are not provided, the standards shall be applied at individual patios and balconies of the development.
 3. Outdoor activity areas of transient lodging facilities include swimming pool and picnic areas, and are not commonly used during nighttime hours.

4.11 NOISE

4. Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
5. Only the exterior spaces of these uses designated for employee or customer relaxation have any degree of sensitivity to noise.
6. The outdoor activity areas of office, commercial and park uses are not typically utilized during nighttime hours.
7. It may not be possible to achieve compliance with this standard at residential uses located immediately adjacent to loading dock areas of commercial uses while trucks are unloading. The daytime and nighttime noise level standards applicable to loading docks shall be 55 and 50 dB L_{eq} , respectively.

Standards for maximum noise levels for new uses affected by non-transportation noise shall be reduced by 5 dB for sounds consisting primarily of speech or music, and for recurring impulsive sounds.

If the existing ambient noise level exceeds the standards of Table 9-6, then the noise level standards shall be increased at 5 dB increments to encompass the ambient.

Table 9-6: Maximum Noise Levels for New Uses Affected by Non-Transportation Noise

New Land Use	Outdoor Activity Area - Leq		Interior - Leq	Notes
	Daytime	Night-Time	Day & Night	
All Residential	50	45	35	1, 2, 7
Transient Lodging	55	—	40	3
Hospitals & Nursing Homes	50	45	35	4
Theaters & Auditoriums	—	—	35	
Churches, Meeting Halls, Schools, Libraries, etc.	55	—	40	
Office Buildings	55	—	45	5, 6
Commercial Buildings	55	—	45	5, 6
Playgrounds, Parks, etc.	65	—	—	6
Light Industry	65	65	50	5

NA-P-1.3 Any City-required acoustical analysis shall be prepared according to specific standards and practices.

NA-P-1.4 New development shall comply with City noise standards.

NA-P-2.1 Maintain a pattern of land uses that separates noise-sensitive land uses from major traffic noise sources, to the extent feasible.

- NA-P-2.2 New development should be site planned and architecturally designed to minimize and mitigate indoor and exterior noise and noise impacts on neighboring uses where feasible.
- NA-P-2.3 Discourage the establishment of acoustically incompatible land uses in juxtaposition or adjacency to each other, when possible.
- NA-P-2.4 Discourage land use patterns and traffic patterns that expose sensitive noise receptors (hospitals, schools, churches, senior care uses, etc.) to noise levels that exceed noise standards and the City's Noise Control Ordinance.
- NA-P-2.5 Use open space, wherever practical, to isolate noise sources from sensitive land uses by the employment of adequate separation distances.
- NA-P-2.6 Protect parks and recreational areas from excessive noise to permit the enjoyment of sports and other leisure time and recreational activities.
- NA-P-3.3 Recommend the use of noise-mitigating devices, such as sound-attenuating paving on streets, wall barriers, landscaping, earth berms, sound walls, mufflers, sound traps, baffles, and/or other noise reduction techniques as conditions of development approval to reduce noise intrusion from transportation and fixed sources.

Implementation Measures

- NA-I-2.1a Evaluate new development proposals for compliance with the standards established in Table 9-6. Where necessary, the City may require preparation of a noise study to determine compliance.
- NA-I-1.3a An acoustical analysis may be required by the City for development projects that are deemed to possibly result in violation of the noise standards outlined in Policies N-1.1 and N-1.2, above, either in terms of a noise impact created by the new development that could affect nearby properties, or if the new development may be impacted by existing noise sources in the community. Additionally, a noise analysis may be required regarding project proximity to noise sensitive receptors.

Where an acoustical analysis is required by the City, it shall be prepared in accordance with the following provisions:

- a) Applicant has the financial responsibility (with the study to be administered by the City).
- b) Must be prepared by qualified persons experienced in the fields of environmental noise assessment and architectural acoustics.
- c) Include representative noise-level measurements with sufficient sampling periods and locations to adequately describe local conditions.
- d) Estimate existing and projected (cumulative) noise levels in terms of City noise standards.

- e) Recommend appropriate project-level noise mitigation measures. Where the noise source in question consists of intermittent single events, the report must address the effects of maximum noise levels in sleeping rooms evaluating possible sleep disturbance.
 - f) Estimate interior and exterior noise exposure after the prescribed mitigations are implemented.
 - g) Describe the post-project assessment program which could be used to evaluate the effectiveness of the proposed mitigations.
- N-I-1.5b Consider an update to the City's Noise Ordinance, consistent with the standards and policies contained in the General Plan.
- N-I-3.1a Require feasible engineering noise control measures identified as mitigation measures in environmental impact reports or mitigated negative declarations on proposed projects be incorporated and adhered to prior to project occupancy.
- N-I-3.1c Continue working collaboratively with transportation, County, and other agencies to reduce noise from existing and future facilities by considering noise reduction strategies related to design and location of the facilities.

Impact 4.11-3: The General Plan would not expose people residing or working in the project area to excessive noise levels within two miles of a public airport or public use airport (Less than Significant)

Contra Costa County is the agency that has jurisdictional authority over the airport and adopted a comprehensive noise abatement and compatibility program for the Buchanan Field Airport in the late 1980s, which was subsequently updated in 2008. This program was prepared under Part 150 of the Federal Aviation Regulations (FAR Part 150), which is designed to reduce existing non-compatible land uses around the airport and prevent the introduction of additional non-compatible uses. The County sets maximum permitted noise levels for aircraft utilizing Buchanan Field, and provides enforcement and compliance provisions.

Noise exposure maps prepared and published in the 2008 Buchanan Field Airport Master Plan Update show that existing 2005 noise levels up to 75 CNEL were experienced near the airport. The Buchanan Field Airport Master Plan Update does not identify the City of Martinez as containing existing noise sensitive land uses within the noise contours. However, implementation of the General Plan Update would not result in the creation of new noise-sensitive land uses within the Buchanan Field noise contours.

Noise associated with aircraft overflights is also of concern when evaluating aircraft noise effects in terms of land use compatibility. Single-event noise is the maximum sound level produced by an individual approach overflight at a specific location, often described in terms of L_{max} , which is the maximum sound level recorded for each event. A different measurement of single-event noise, also commonly used when evaluating aircraft noise, is the SEL. The SEL describes the event's mean energy level over the duration of the noise event. Single-event noise levels for aircraft overflights within the Study Area would be greatest

and most frequent near the airport's primary flight paths. The majority of mapped noise contours associated with Buchanan Field are located outside of the City and SOI, however, a small portion of the 65 CNEL contour is located north of SR-4. Proposed uses within the SOI that would be affected by the 65 CNEL contour are undeveloped land designated General Commercial (GC) by the proposed Land Use Map. Implementation Measure NA-I-1.3a would require an acoustical analysis for future development projects that are deemed to possibly result in violation of the noise standards, either in terms of a noise impact created by the new development that could affect nearby properties, or if the new development may be impacted by existing noise sources in the community. Additionally, Implementation Measure NA-P-1.4 requires compliance with City noise standards to rest with new development, rather than requiring noise mitigation measures upon existing uses. Therefore, any proposed development within the Buchanan Field noise contour would be required to comply with the City's noise standards.

Additionally, the General Plan Update includes goals, policies, and implementation measures intended to reduce airport noise impacts throughout the City. Policy NA-P-2.8 is intended to minimize the noise impacts of air flight paths over the City, including the impacts of helicopter flight paths related to operation of regional hospitals. Implementation Measure NA-I-2.8a encourages cooperation with Buchanan Airfield to promote a fly neighborly program to minimize noise results from low altitude general aircraft over Martinez. Implementation Measure NA-I-2.8b supports cooperation with surrounding and area jurisdictions and hospitals to reduce the impact of helicopter takeoffs, landings and over-flights in Martinez. Policy NA-P-2.1 ensures that the City maintains a pattern of land uses that separates noise-sensitive land uses from major traffic noise sources. Policy NA-P-2.2 supports site plans and architecturally designed that minimize and mitigate indoor and exterior noise and noise impacts on neighboring uses. Policy NA-P-2.3 discourages the establishment of acoustically incompatible land uses in juxtaposition or adjacency to each other, when possible.

The General Plan Update includes goals, policies, and implementation measures intended to reduce airport noise impacts throughout the Study Area. These include land use compatibility standards, and policies that would require new development projects to conform to the City's interior and exterior noise level standards. With the implementation of the General Plan Update goals, policies and implementation measures, noise impacts relative to airports would be **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Noise & Air Quality Element

Policies

- | | |
|----------|--|
| NA-P-1.4 | New development shall comply with City noise standards. |
| NA-P-2.1 | Maintain a pattern of land uses that separates noise-sensitive land uses from major traffic noise sources, to the extent feasible. |
| NA-P-2.2 | New development should be site planned and architecturally designed to minimize and mitigate indoor and exterior noise and noise impacts on neighboring uses where feasible. |

4.11 NOISE

- NA-P-2.3 Discourage the establishment of acoustically incompatible land uses in juxtaposition or adjacency to each other, when possible.
- NA-P-2.4 Discourage land use patterns and traffic patterns that expose sensitive noise receptors (hospitals, schools, churches, senior care uses, etc.) to noise levels that exceed noise standards and the City's the Noise Control Ordinance.
- NA-P-2.5 Use open space, wherever practical, to isolate noise sources from sensitive land uses by the employment of adequate separation distances.
- NA-P-2.6 Protect parks and recreational areas from excessive noise to permit the enjoyment of sports and other leisure time and recreational activities.
- NA-P-2.8 Minimize the noise impacts of air flight paths over the City, including the impacts of helicopter flight paths related to operation of regional hospitals.

Implementation Measures

- NA-I-1.3a An acoustical analysis may be required by the City for development projects that are deemed to possibly result in violation of the noise standards outlined in Policies N-1.1 and N-1.2, either in terms of a noise impact created by the new development that could affect nearby properties, or if the new development may be impacted by existing noise sources in the community. Additionally, a noise analysis may be required regarding project proximity to noise sensitive receptors.

Where an acoustical analysis is required by the City, it shall be prepared in accordance with the following provisions:

- a) Applicant has the financial responsibility (with the study to be administered by the City).
- b) Must be prepared by qualified persons experienced in the fields of environmental noise assessment and architectural acoustics.
- c) Include representative noise-level measurements with sufficient sampling periods and locations to adequately describe local conditions.
- d) Estimate existing and projected (cumulative) noise levels in terms of City noise standards.
- e) Recommend appropriate project-level noise mitigation measures. Where the noise source in question consists of intermittent single events, the report must address the effects of maximum noise levels in sleeping rooms evaluating possible sleep disturbance.
- f) Estimate interior and exterior noise exposure after the prescribed mitigations are implemented.

g) Describe the post-project assessment program which could be used to evaluate the effectiveness of the proposed mitigations.

NA-I-2.8a Work with Buchanan Airfield to promote a fly neighborly program to minimize noise results from low altitude general aircraft over Martinez.

NA-I-2.8b Work with surrounding and area jurisdictions and hospitals to reduce the impact of helicopter takeoffs, landings and over-flights in Martinez.

Impact 4.11-4: Construction noise associated with the General Plan could result in substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (Less than Significant)

New development, maintenance of roadways, installation of public utilities and infrastructure generally require construction activities. These activities include the use of heavy equipment and impact tools. Table 4.11-11 provides a list of the types of equipment which may be associated with construction activities, and their associated noise levels.

TABLE 4.11-11: CONSTRUCTION EQUIPMENT NOISE

Type of Equipment	Predicted Noise Levels, Lmax dB				Distances to Noise Contours (feet)	
	Noise Level at 50'	Noise Level at 100'	Noise Level at 200'	Noise Level at 400'	70 dB Lmax contour	65 dB Lmax contour
Backhoe	78	72	66	60	126	223
Compactor	83	77	71	65	223	397
Compressor (air)	78	72	66	60	126	223
Concrete Saw	90	84	78	72	500	889
Dozer	82	76	70	64	199	354
Dump Truck	76	70	64	58	100	177
Excavator	81	75	69	63	177	315
Generator	81	75	69	63	177	315
Jackhammer	89	83	77	71	446	792
Pneumatic Tools	85	79	73	67	281	500
Pile Driver	101	95	89	83	1,174	3,155

SOURCE: ROADWAY CONSTRUCTION NOISE MODEL USER'S GUIDE. FEDERAL HIGHWAY ADMINISTRATION. FHWA-HEP-05-054. JANUARY 2006.

Activities involved in construction would typically generate maximum noise levels ranging from 90 to 101 dB at a distance of 50 feet, with the highest noise levels generated by activities such as pile driving. Pile driving activities also generate sound levels that travel considerably further distances than other construction activities, as indicated in the noise contour data in Table 4.11-11. Refer to Impact 4.11-5 regarding groundborne vibration. Construction could result in periods of significant ambient noise level increases and the potential for annoyance.

The General Plan Update includes policies and implementation measures that are intended to reduce noise associated with construction activities. Specifically, Policy NA-P-2.7 would reduce noise impacts

from construction activities and is supported by implementation measures NA-I-2.7a, which considers amendment of the City’s Noise Control Ordinance to address appropriate hours of construction and would be implemented in all construction projects unless an exemption is first obtained from the City in response to special circumstances, and NA-I-2.7b, which requires all internal combustion engines used in conjunction with construction to be muffled according to the equipment manufacturer’s requirements.

Additionally, Martinez Municipal Code, Chapter 8.34.030 limits the hours of operation for noise-producing construction equipment. The operation of pile drivers, steam shovels, and pneumatic hammers used in construction, demolition, or other repair work, is prohibited before 7:00 a.m. or after 7:00 p.m. Monday through Friday, and before 9:00 a.m. or after 5:00 p.m. on Saturdays, Sundays, and State, federal, or local holidays.

Compliance with Martinez Municipal Code, Chapter 8.34.030, which limits the hours of operation for noise-producing construction equipment and compliance with the policies included in the General Plan Update related to construction noise would reduce noise impacts throughout the Study Area. Implementation of the proposed policies and implementation measures of the General Plan Update would ensure noise impacts from construction are **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Noise & Air Quality Element

Policies

NA-P-2.7 Reduce noise impacts from construction activities.

Implementation Measures

NA-I-2.7a Consider amendment of the City’s Noise Control Ordinance to address appropriate hours of construction which shall be implemented in all construction projects unless an exemption is first obtained from the City in response to special circumstances.

NA-I-2.7b All internal combustion engines used in conjunction with construction shall be muffled according to the equipment manufacturer’s requirements.

NA-I-3.1a Require feasible engineering noise control measures identified as mitigation measures in environmental impact reports or mitigated negative declarations on proposed projects be incorporated and adhered to prior to project occupancy.

Impact 4.11-5: Construction vibration associated with the project could expose of persons to or result in generation of excessive groundborne vibration levels (Less than Significant)

The primary vibration-generating activities associated with future development and redevelopment activities facilitated by the proposed project would occur during construction when activities such as grading, pile driving, utilities placement, and parking lot construction occur. Construction activities may generate perceptible vibration when heavy equipment or impact tools (e.g., jackhammers, hoe rams, pile

drivers) are used. Construction activities often include demolition of existing structures, excavation, site preparation work, foundation work, and new building framing and finishing.

For structural damage, the Caltrans uses a vibration limit of 0.5 inches/second, peak particle velocity (in/sec, PPV) for buildings structurally sound and designed to modern engineering standards.

Table 4.11-12 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet. Construction activities such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may generate substantial vibration in the immediate vicinity. Jackhammers typically generate vibration levels of 0.035 in/sec PPV and drilling typically generates vibration levels of 0.09 in/sec PPV at a distance of 25 feet.

TABLE 4.11-12: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment		PPV at 25 ft. (in/sec)	Approximate Lv at 25 ft. (VdB)
Pile Driver (Impact)	upper range	1.158	112
	typical	0.644	104
Pile Driver (Sonic)	upper range	0.734	105
	typical	0.170	93
Clam shovel drop		0.202	94
Hydromill (slurry wall)	in soil	0.008	66
	in rock	0.017	75
Vibratory Roller		0.210	94
Hoe ram		0.089	87
Large bulldozer		0.089	87
Caisson drilling		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79
Small bulldozer		0.003	58

SOURCE: TRANSIT NOISE AND VIBRATION IMPACT ASSESSMENT, UNITED STATES DEPARTMENT OF TRANSPORTATION, OFFICE OF PLANNING AND ENVIRONMENT, FEDERAL TRANSIT ADMINISTRATION, MAY 2006.

Table 4.11-12 data indicate that construction vibration levels anticipated for typical project construction are less than the 0.2 in/sec p.p.v. threshold of damage to buildings and less than the 0.1 in/sec threshold of annoyance criteria at distances of 100 feet. Most project construction would likely occur at distances greater than 100 feet from sensitive receptors.

However, projects that require the use of pile drivers may result in vibration levels that exceed the vibration threshold of 0.5 in/sec p.p.v., which has the potential for damage to existing buildings and annoyance to sensitive receptors could occur at distances less than 100 feet. Therefore, this impact would be considered potentially significant.

The General Plan Noise & Air Quality Element includes Policy NA-P-3.1 that requires the preparation of ground-borne vibration studies by qualified professionals when construction activities include vibration-sensitive uses and significant site grading, foundation work, or underground work. Implementation Measure NA-I-3.1d requires development projects to reduce adverse construction vibration impacts and identifies methods to reduce construction vibration impacts, including phasing of ground-disturbing activities, using equipment or procedures that generate less vibration than typical construction equipment, and addressing vibration-related damage to existing buildings.

Implementation of the General Plan Update policies and implementation measures would ensure that potential impacts associated with vibration during construction activities are reduced to a **less than significant** level.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Noise & Air Quality Element

Policies

NA-P-3.1 Require where necessary the preparation of ground-borne vibration studies by qualified professionals when construction activities include vibration-sensitive uses and significant site grading, foundation work, or underground work.

Implementation Measures

NA-I-3.1a Require feasible engineering noise control measures identified as mitigation measures in environmental impact reports or mitigated negative declarations on proposed projects be incorporated and adhered to prior to project occupancy.

NA-I-3.1d Require development projects to reduce adverse construction vibration impacts to sensitive receptors, as feasible, when vibration-related construction activities are to occur within 100 feet from existing sensitive receptors. Measures to reduce noise and vibration effect may include, but are not limited to:

- a) Phase demolition, earth-moving and ground-impacting operations so as not to occur in the same time period.
- b) The pre-existing condition of all buildings within a 100-foot radius will be recorded in order to evaluate damage from construction activities. Fixtures and finishes within a 100-foot radius of construction activities susceptible to damage will be documented (photographically and in writing) prior to construction. All damage will be repaired back to its pre-existing condition.
- c) Substituting vibration-generating equipment with equipment or procedures that would generate lower levels of vibration. For instance, in comparison to impact piles, drilled piles or the use of a sonic or vibratory pile driver are preferred alternatives where geological conditions would permit their use.

Other specific measures as they are deemed appropriate by the implementing agency to maintain consistency with adopted policies and regulations regarding vibration.

Impact 4.11-6: The General Plan could expose persons to railroad noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (Less Than Significant)

Railroad noise sources include the Union Pacific and BNSF rail lines which carry freight traffic and Amtrak which provides commuter rail service. Measured railroad noise levels ranged from a maximum of 105 dBA due to train warning horns, while noise levels approximately 140 feet from the tracks were about 76 dBA as a result of train horns and about 68 dBA during train pass-bys. The General Plan Update does not propose an increase in rail traffic, but could result in new or redeveloped noise sensitive uses in the vicinity of the rail lines. These uses could be exposed to excessive noise levels during train pass-bys and when train warning horns are sounded.

The General Plan Update includes policies and implementation measures that are intended to reduce exposure to excessive noise levels. Specifically, Policy NA-P-1.1 establishes interior and exterior noise level standards for noise-sensitive areas of new uses affected by transportation-related noise. Implementation measure NA-I-1.1a requires new development proposals to be evaluated for compliance with the interior and exterior noise standards established by Policy N-P-1.1. Measure NA-I-1.3a requires an acoustical analysis for development projects that may result in violation of the established noise standards. Policy NA-P-2.1 would maintain a pattern of land uses that separates noise-sensitive land uses, such as residential, from major traffic noise sources to the extent feasible. Implementation measure NA-I-3.1b encourages actions such as quiet zones to reduce impacts of train noise near Downtown and also encourage the use of best available or practical technology to minimize noise.

Implementation of these General Plan Update policies and implementation measures would ensure that development allowed under the General Plan Update would not be exposed to noise levels associated with railroad operations in excess of the City's established standards. This is a **less than significant** impact.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Noise & Air Quality Element

Policies

NA-P-1.1 The interior and exterior noise level standards for noise-sensitive areas of new uses affected by transportation-related noise are as follows:

1. For traffic noise within Martinez, L_{dn} and peak-hour L_{eq} values are estimated to be approximately similar. Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions.

2. Outdoor activity areas for single-family residential uses are defined as backyards. For large parcels or residences with no clearly defined outdoor activity area, the standard shall be applicable within a 100-foot radius of the residence.
3. For multi-family residential uses, and for mixed-use projects that include residential units, the exterior noise level standard shall be applied at the common outdoor recreation area, such as at pools, play areas or tennis courts.
4. Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn} or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn} may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.
5. Outdoor activity areas of transient lodging facilities include swimming pool and picnic areas.
6. Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
7. Only the exterior spaces of these uses designated for employee or customer relaxation have any degree of sensitivity to noise.

- NA-P-1.3 Any City-required acoustical analysis shall be prepared according to specific standards and practices.
- NA-P-1.4 New development shall comply with City noise standards.
- NA-P-2.1 Maintain a pattern of land uses that separates noise-sensitive land uses from major traffic noise sources, to the extent feasible.
- NA-P-2.2 New development should be site planned and architecturally designed to minimize and mitigate indoor and exterior noise and noise impacts on neighboring uses where feasible.
- NA-P-2.3 Discourage the establishment of acoustically incompatible land uses in juxtaposition or adjacency to each other, when possible.
- NA-P-2.4 Discourage land use patterns and traffic patterns that expose sensitive noise receptors (hospitals, schools, churches, senior care uses, etc.) to noise levels that exceed noise standards and the City’s Noise Control Ordinance.
- NA-P-2.5 Use open space, wherever practical, to isolate noise sources from sensitive land uses by the employment of adequate separation distances.
- NA-P-2.6 Protect parks and recreational areas from excessive noise to permit the enjoyment of sports and other leisure time and recreational activities.

Implementation Measures

NA-I-1.1a Evaluate new development proposals for compliance with the standards established in Table 9-5. Where necessary, the City may require preparation of a noise study to determine compliance.

Table 9-5: Maximum Noise Levels for New Uses Affected by Traffic Noise

NEW LAND USE	OUTDOOR ACTIVITY AREAS -- L _{DN}	INTERIOR SPACES- L _{DN} /PEAK HOUR L _{EQ} ¹	NOTES
All Residential	60-65	45	2, 3, 4
Transient Lodging	65	45	5
Hospitals & Nursing Homes	60	45	6
Theaters & Auditoriums	—	35	
Churches, Meeting Halls, Schools, Libraries, etc.	60	40	
Office Buildings	65	45	7
Commercial Buildings	65	50	7
Playgrounds, Parks, etc.	70	—	
Industrial	65	50	7

Note: The numbers in the notes column correspond to numbers listed under Noise & Air Quality Policy N-P-1.2

NA-I-3.1a Require feasible engineering noise control measures identified as mitigation measures in environmental impact reports or mitigated negative declarations on proposed projects be incorporated and adhered to prior to project occupancy.

NA-I-3.1b When appropriate and feasible, implement actions, such as quiet zones to reduce the impacts of train noise near Downtown and use best available or practical control technology to minimize noise.

NA-I-3.1c Continue working collaboratively with transportation, County, and other agencies to reduce noise from existing and future facilities by considering noise reduction strategies related to design and location of the facilities.

4.11.4 CUMULATIVE IMPACTS

Table 4.11-10 displays the predicted cumulative traffic noise levels for major roadways throughout the Study Area. The table also shows the estimated noise level increases which may occur under cumulative conditions.

As shown in Table 4.11-10, noise levels on major roadways throughout the Study Area are predicted to increase, but would not contribute to an exceedance of the City’s transportation noise standards and would result in a less than significant increase in traffic noise levels at existing sensitive receptors. The increase in noise levels is associated with additional traffic on the local roadway network under buildout of the proposed General Plan Update. The General Plan Update includes policies and implementation measures to minimize exposure to excessive noise, including noise associated with traffic. Specifically, Goal NA-G-4 calls for reduced noise from traffic. Policy NA-P-4.1 encourages the use of quieter pavement

to be included in new developments whenever possible. Policy NA-P-4.2 ensures vehicle amplification systems are not heard within 50 feet or more of the vehicle. Policy NA-P-4.3 supports the control of excessive exhaust noise. Measure NA-I-4.3a ensures the enforcement of Section 27002 and 27150 of the California Motor Vehicle Code when noises from vehicles and or exhaust are deemed to exceed allowable limits. Policy N-P-1.1 ensures implementation of the City's interior and exterior noise level standards for noise-sensitive areas of new uses affected by transportation-related noise. Measure NA-I-1.1a requires the evaluation of new development proposals for compliance with the City's noise standards, and where necessary, requires preparation of a noise study to determine compliance. Policy NA-P-2.1 ensures the City maintains a pattern of land uses that separates noise-sensitive land uses from major traffic noise sources, to the extent feasible. Implementation of the proposed policies and implementation measures of the General Plan Update would reduce cumulative noise impacts from traffic noise sources to a less than significant level.

Implementation of land use planning and policies and actions can minimize cumulative noise impacts related to stationary sources by avoiding the placement of noise generating equipment near noise-sensitive land uses and where unavoidable, include design measures to the degree practicable to avoid violating the noise criteria presented in the General Plan Update Noise & Air Quality Element Table P-6. The General Plan Update also includes policies and implementation measures that are intended to reduce noise associated with stationary sources. Policy NA-P-1.2 sets maximum interior and exterior noise level standards for noise-sensitive areas of new uses affected by non-transportation related noise. Policy NA-P-2.1 ensures a pattern of land uses that separates noise-sensitive land uses. Policy NA-P-2.2 supports new development to be site planned and architecturally designed to minimize and mitigate indoor and exterior noise and noise impacts on neighboring uses where feasible. Policy NA-P-2.3 discourages the establishment of acoustically incompatible land uses in juxtaposition or adjacency to each other, when possible. Policy NA-P-2.4 discourages land use patterns and traffic patterns that expose sensitive noise receptors (hospitals, schools, churches, senior care uses, etc.) to noise levels that exceed noise standards and the City's the Noise Control Ordinance. Policy NA-P-2.5 encourages the use of open space, wherever practical, to isolate noise sources from sensitive land uses by the employment of adequate separation distances. Policy NA-P-2.6 requires the protection of parks and recreational areas from excessive noise to permit the enjoyment of sports and other leisure time and recreational activities. Policy NA-P-1.4 requires new development to be responsible for compliance with City noise standards. Policy NA-P-3.3 recommends the use of noise-mitigating devices, such as sound wall barriers, landscaping, earth berms, sound walls, mufflers, sound traps, baffles, and/or other noise reduction techniques as conditions of development approval to reduce noise intrusion from transportation and fixed sources. Measure N-I-3.1a requires adherence to feasible engineering noise control measures identified as mitigation measures in environmental impact reports or mitigated negative declarations on proposed projects be incorporated prior to project occupancy. Implementation of the proposed policies and implementation measures of the General Plan Update would reduce cumulative noise impacts from stationary noise sources to a less than significant level.

Short-term construction noise and vibration is a localized activity and would affect only land uses that are immediately adjacent to a specific project site. Each construction project would have to comply with the local noise ordinance and General Plan Update policies and implementation measures. The General Plan Noise & Air Quality Element includes Policy NA-P-3.1 that requires the preparation of ground-borne

vibration studies by qualified professionals when construction activities include vibration-sensitive uses and significant site grading, foundation work, or underground work. Implementation Measure NA-I-3.1d requires development projects to reduce adverse construction vibration impacts and identifies methods to reduce construction vibration impacts, including phasing of ground-disturbing activities, using equipment or procedures that generate less vibration than typical construction equipment, and addressing vibration-related damage to existing buildings. Policy NA-P-2.7 would reduce noise impacts from construction activities and is supported by implementation measures NA-I-2.7a, which considers amendment of the City's Noise Control Ordinance to address appropriate hours of construction and will be implemented in all construction projects unless an exemption is first obtained from the City in response to special circumstances, and NA-I-2.7b, which requires all internal combustion engines used in conjunction with construction to be muffled according to the equipment manufacturer's requirements.

Compliance with Martinez Municipal Code, Chapter 8.34.030, which limits the hours of operation for noise-producing construction equipment and compliance with the policies included in the General Plan Update related to construction noise would reduce noise impacts throughout the Study Area. Additionally, projects would comply with mitigation measures that may be prescribed pursuant to CEQA provisions that require significant impacts to be reduced to the extent feasible. In addition, it is unlikely that all construction projects would occur simultaneously within the City. Thus, a less than significant impact would occur.

Railroad noise sources include the Union Pacific and BNSF rail lines which carry freight traffic and Amtrak which provides commuter rail service. The General Plan Update does not propose an increase in rail traffic, but could result in new or redeveloped noise sensitive uses in the vicinity of the rail lines. These uses could be exposed to cumulatively excessive noise levels during train pass-bys and when train warning horns are sounded. The General Plan Update includes policies and implementation measures that are intended to reduce exposure to excessive noise levels. Specifically, Policy NA-P-1.1 establishes interior and exterior noise level standards for noise-sensitive areas of new uses affected by transportation-related noise. Implementation measure NA-I-1.1a requires new development proposals to be evaluated for compliance with the interior and exterior noise standards established by Policy N-P-1.1. Policy NA-P-2.1 would maintain a pattern of land uses that separates noise-sensitive land uses, such as residential, from major traffic noise sources to the extent feasible. Implementation measure NA-I-3.1b encourages actions such as quiet zones to reduce impacts of train noise near Downtown and also encourages the use of best available or practical technology to minimize noise. Implementation of these General Plan Update policies and implementation measures would ensure that development allowed under the General Plan Update would not be exposed to noise levels associated with railroad operations in excess of the City's established standards. Thus, a less than significant impact would occur.

With the polices and actions included within the General Plan Update and compliance with the Martinez Municipal Code, the cumulative effect of noise and vibration impacts associated with implementation of the General Plan Update would be reduced to a less-than-significant level. As a result, the General Plan's incremental contribution to cumulative noise and vibration impacts would **not be cumulatively considerable**.

4.11.5 SIGNIFICANT UNAVOIDABLE IMPACTS

General Plan implementation would result in a **less than significant** impact relative to noise.

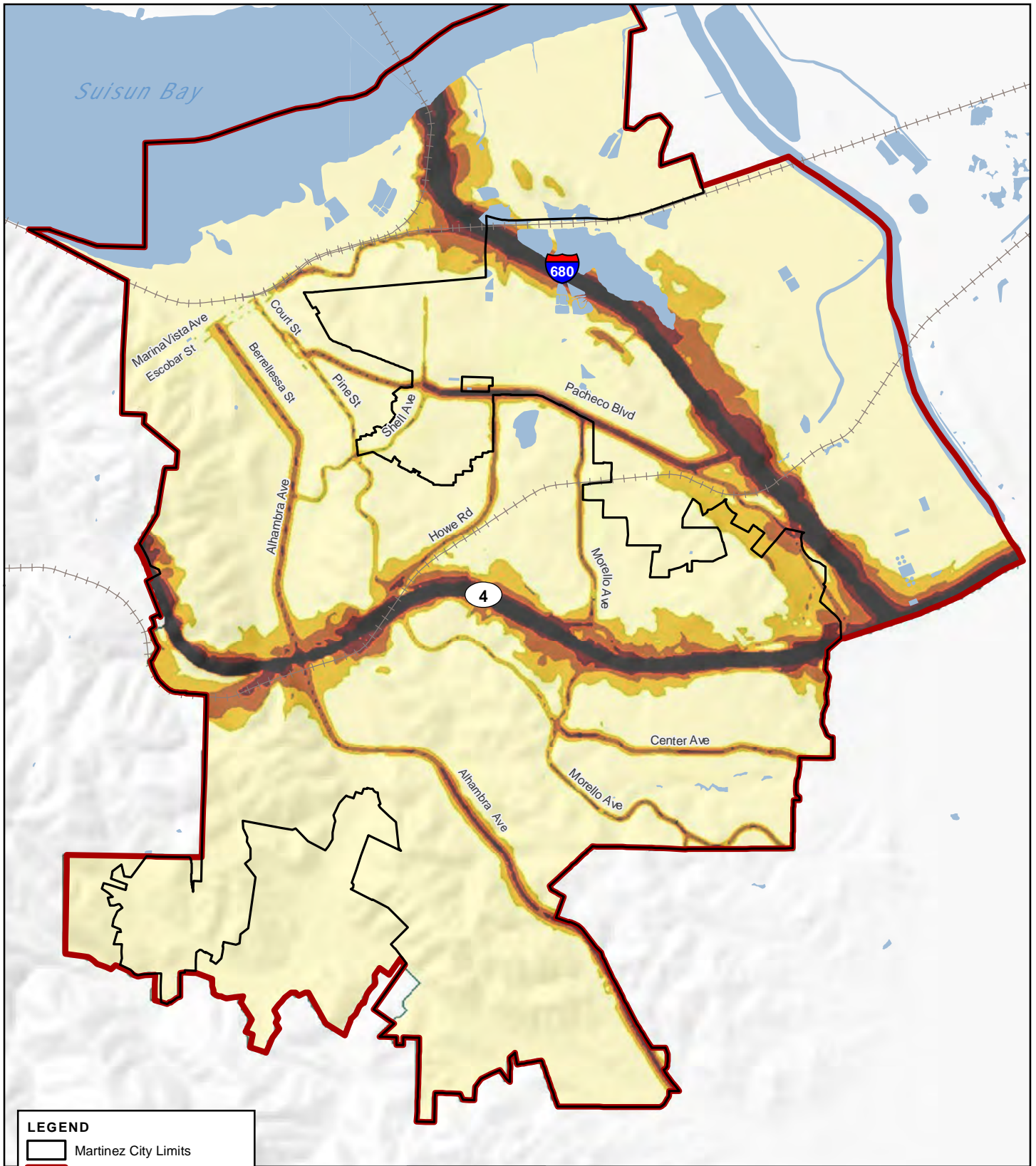
4.11.6 REFERENCES

California Department of Transportation (Caltrans), *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, 2013.

California Department of Transportation (Caltrans), *Transportation and Construction Vibration Guidance Manual*, April 2020.

Federal Interagency Committee on Noise, *Federal Agency Review of Selected Airport Noise Analysis Issues*, August 1992.

Federal Transit Administration, *Transit Noise and Vibration Impact Assessment. Typical Construction Equipment Vibration Emissions. FTAVA-90-1003-06*, 2006.

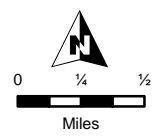


LEGEND

- Martinez City Limits
- Martinez Sphere of Influence

Noise Level in dB(A) Ldn

- > 75
- >70 - <=75
- >65 - <=70
- >60 - <=65
- <= 60

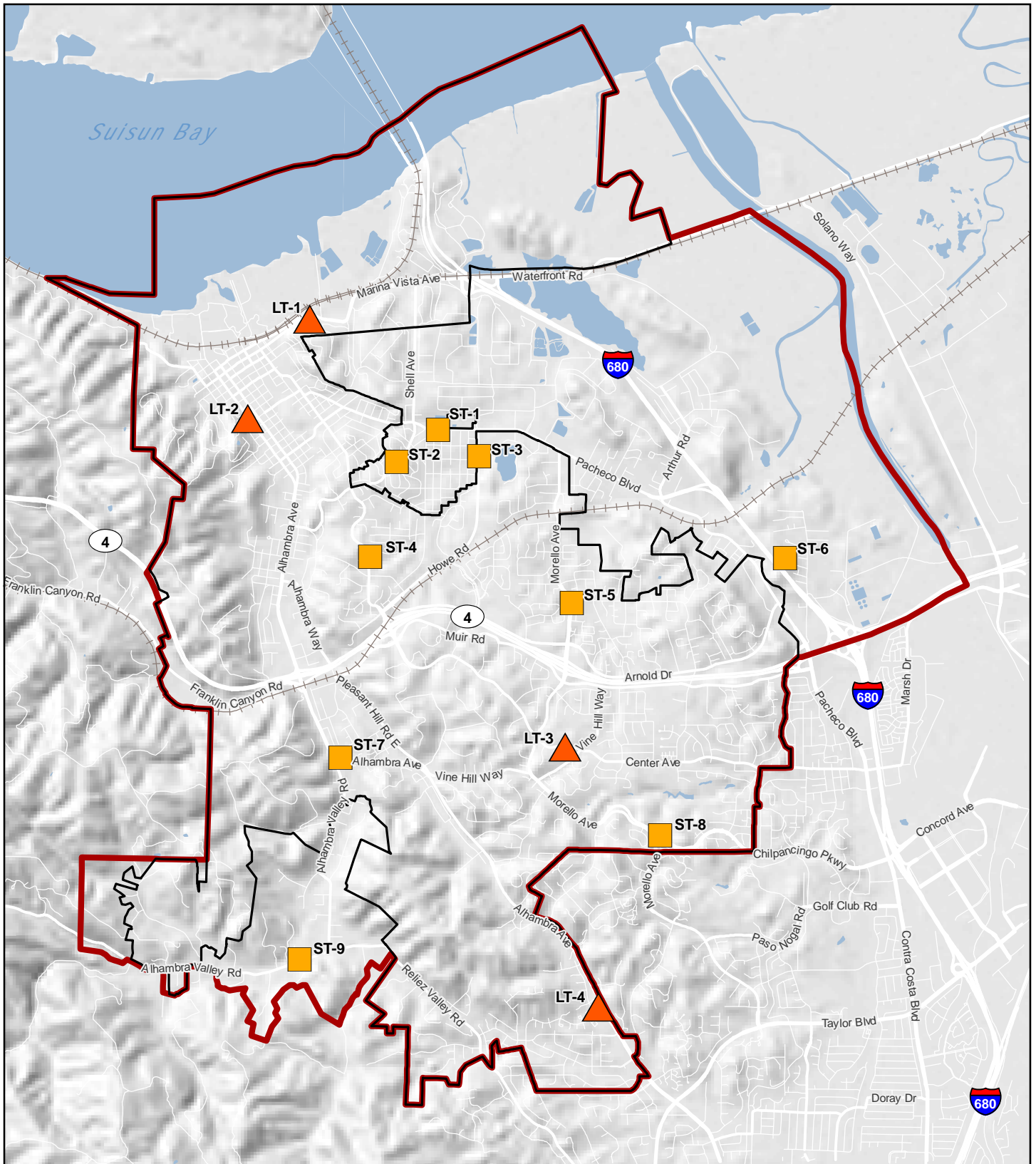


CITY OF MARTINEZ

Figure 4.11-1. Existing Noise Contours

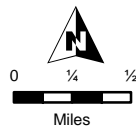
Sources: Contra Costa County GIS; City of Martinez; Saxelby Acoustics, July 21, 2022. Map date: July 26, 2022.

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LEGEND

- Martinez City Limits
- Martinez Sphere of Influence
- ▲ Long-Term Noise Measuring Site
- Short-Term Noise Measuring Site

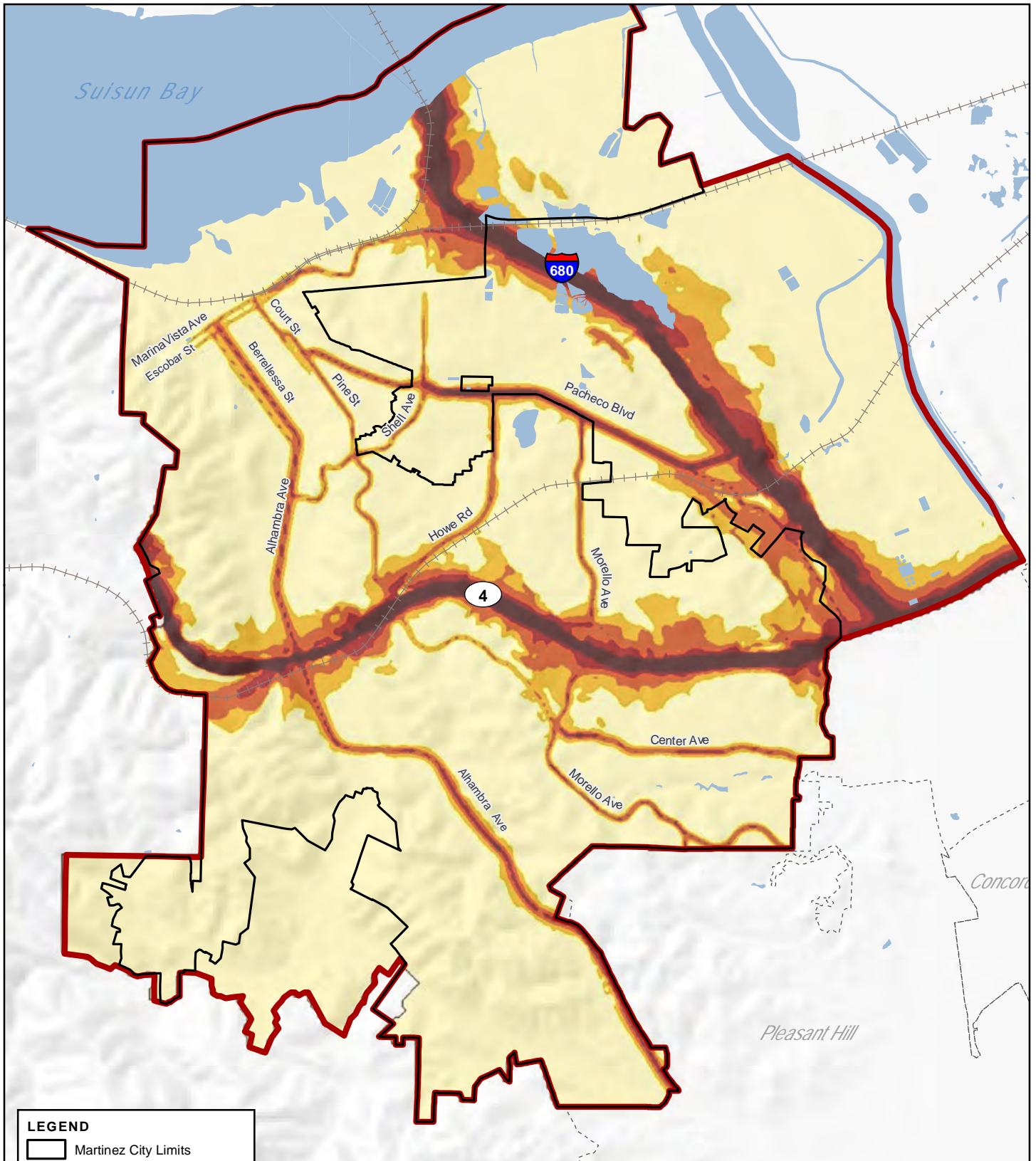


CITY OF MARTINEZ

Figure 4.11-2. Noise Measurement Sites

Sources: Saxelby Acoustics 7/21/2022; Contra Costa County GIS; City of Martinez. Map date: July 26, 2022.

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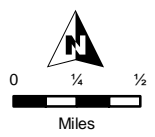


LEGEND

- Martinez City Limits
- Martinez Sphere of Influence

Noise Level in dB(A) Ldn

- > 75
- >70 - <=75
- >65 - <=70
- >60 - <=65
- <= 60



CITY OF MARTINEZ

Figure 4.11-3. 2040 Traffic Noise Contours

Sources: Contra Costa County GIS; City of Martinez; Saxelby Acoustics, July 21, 2022. Map date: July 26, 2022.

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The purpose of this EIR section is to identify if the proposed General Plan Update would result in physical environmental impacts by inducing substantial population growth, or result in the displacement of substantial numbers of people or housing.

This section is primarily based on information provided by the following reference materials: *Plan Bay Area 2050* (ABAG 2021); U.S Census 2020 Population and Housing Estimates for Cities, Counties, and the State; the *Housing Element* (City of Martinez 2011); *Zoning* – Title 22 of the Martinez Municipal Code; the *Downtown Specific Plan* (City of Martinez 2005); the *Alhambra Valley Specific Plan Annexation* (City of Martinez 2012 and Contra Costa County 1992); the Department of Finance E-5 Population and Housing Report January 2011-2021 estimates; and the Department of Finance E-5 Population and Housing Report May 2022 estimates.

4.12.1 ENVIRONMENTAL SETTING

DEMOGRAPHICS

POPULATION TRENDS

Population growth from 2010 to 2022 is shown in Table 4.12-1. The population of Martinez continues to grow at a similar rate as the surrounding cities such as Pleasant Hill and Concord, but at a slower rate compared Contra Costa County. Population growth from 2010 to 2022 is shown in Table 4.12-1.

TABLE 4.12-1: POPULATION GROWTH

Population	2010	2015	2020	2022	Change from 2010-2022
Martinez	35,824	37,408	36,946	36,908	3.03%
Pleasant Hill	33,152	34,260	34,127	34,026	2.64%
Concord	122,067	127,223	129,453	123,634	1.28%
Contra Costa County	1,049,025	1,113,221	1,149,853	1,156,555	10.25%

SOURCE: CALIFORNIA DOF; 2010, 2015, 2020, 2022

HOUSING UNITS

Table 4.12-2 summarizes the housing unit trends for the City of Martinez, Contra Costa County, and the surrounding cities of Pleasant Hill and Concord between the years of 2010 and 2022, as presented by the California Department of Finance. The total number of housing units within the City of Martinez has increased from 14,976 in 2010 to 15,432 in 2022, representing an increase of 3.04 percent over the 12 years.

TABLE 4.12-2: TOTAL HOUSING UNITS

Population	2010	2015	2020	2022	Change from 2010-2022
Martinez	14,976	15,151	15,256	15,432	3.04%
Pleasant Hill	14,321	14,329	14,373	14,498	1.24%
Concord	47,125	47,170	47,373	47,683	1.18%
Contra Costa County	400,263	407,556	418,415	427,775	6.87%

SOURCE: CALIFORNIA DOF; 2010, 2015, 2020, 2022

4.12 POPULATION AND HOUSING

The number of housing units in Martinez has steadily increased over the last decade while the population has fluctuated slightly more inconsistently. As shown in Table 4.12-3, there are approximately 15,432 housing units in the City, as of 2022. The majority of the housing units in the City are single family detached homes, which account for 62.8 percent of all housing units. The remaining housing types include single family attached units (14.5 percent), duplexes through fourplexes (8.7 percent), multifamily apartments with five or more units (13.9 percent), and mobile homes (0.1 percent). In Contra Costa County, housing units have increased at a slightly faster pace, with a 4.96 percent overall increase from 2015 to 2022. As shown in Table 4.12-3, the mix of housing stock in Martinez is broadly similar to the County, with a slightly higher proportion of single family attached units, and a slightly lower proportion of buildings with five or more units.

TABLE 4.12-3: HOUSING UNIT BREAKDOWN: CITY OF MARTINEZ & CONTRA COSTA COUNTY

Martinez	2015		2022		Change from 2015-2022
	Number	Percent	Number	Percent	
Single Detached	9,517	62.8%	9,694	62.8%	+1.86%
Single Attached	2,172	14.3%	2,236	14.5%	+2.95%
Two to Four	1,325	8.7%	1,339	8.7%	+1.06%
Five Plus	2,122	14.0%	2,148	13.9%	+1.23%
Mobile Homes	15	0.1%	15	0.1%	0%
Total Units	15,151	-	15,432	-	+1.85%
Vacancy Rate	-	5.2%	-	3.4%	-
Contra Costa County					
Single Detached	271,840	66.7%	284,849	66.6%	+4.79%
Single Attached	31,747	7.8%	32,492	7.6%	+2.35%
Two to Four	28,587	7.0%	29,436	6.9%	+2.97%
Five Plus	68,113	16.7%	73,574	17.2%	+8.02%
Mobile Homes	7,269	1.8%	7,419	1.7%	+2.06%
Total Units	407,556	-	427,775	-	+4.96%
Vacancy Rate	-	5.9%	-	4.0%	-

SOURCE: CALIFORNIA DOF; 2015, 2022.

The vacancy rate in Martinez was 4.6 percent around 2010, but increased to 5.2 percent by 2015 (a vacancy rate of five percent is generally considered indicative of a balanced housing market). However, the Department of Finance reports that in 2021 and 2022, the City had a vacancy rate of 3.4 percent, which is similar to the 3.3 percent vacancy rate found in the City in 2020. This trend seen in the City is consistent with the greater trend found in the County; the vacancy rate in Contra Costa County is 4.0 percent in 2021 and 2022, which is in line with the 3.9 percent vacancy rate in 2020 (California DOF). The optimal homeowner vacancy rate for a city or county will fall within the range of two to four percent of the total occupied housing units, while the optimal rental vacancy rate usually falls between five to six percent. Martinez's vacancy rates reveal that the City is generally in range of the optimal rates (California DOF).

HOUSEHOLD SIZE

The average household size in the City of Martinez is estimated in 2022 to be 2.50 persons per household, representing a 0.41 percent increase in persons per household from 2010 and 2022. Table 4.12-4 summarizes household sizes for the City of Martinez, Contra Costa County, and the neighboring cities of Pleasant Hill and Concord from 2010 through 2022.

TABLE 4.12-4: HOUSEHOLD SIZE

Household Size	2010	2015	2020	2021	Change from 2010-2021
Martinez	2.42	2.51	2.51	2.50	3.3%
Pleasant Hill	2.39	2.47	2.47	2.47	3.3%
Concord	2.73	2.84	2.83	2.83	3.7%
Contra Costa County	2.77	2.87	2.88	2.87	3.6%

Source: CALIFORNIA DOF; 2010, 2015, 2020, 2021.

AGE OF HOUSING STOCK

Within the City of Martinez, residential development trends have slowed since 1990. The greatest amount of residential development within the City took place between 1970 through 1989. Throughout this 20-year period, roughly 50 percent on the City's housing stock was established. Table 4.12-5 summarizes the age of the City's housing stock.

TABLE 4.12-5: AGE OF HOUSING STOCK, CITY OF MARTINEZ (2020)

Year Structure Built	Number of Units	Percentage of Housing Stock
2014 or Later	86	0.6%
2010 to 2013	72	0.5%
2000 to 2009	461	3.0%
1990 to 1999	1,423	9.3%
1980 to 1989	3,858	25.1%
1970 to 1979	3,536	23.1%
1960 to 1969	2,052	13.4%
1950 to 1959	1,329	8.7%
1940 to 1949	676	4.4%
1939 or Earlier	1,847	12.0%
Total Units	15,340*	100%

SOURCE: US CENSUS BUREAU, 2020.

NOTE: * U.S. CENSUS TOTAL MARGIN OF ERROR EQUALS +/- 462 UNITS

GROWTH PROJECTIONS

Table 4.12-6 summarizes housing units and employment growth forecasts for the City, the region, and the County as projected by the Association of Bay Area Governments (ABAG) (refer to Section 3.0, Basis of Cumulative Analysis for further details). ABAG’s growth projections are based on a baseline year of 2015 and anticipates growth through 2050. For its growth forecast, ABAG divides the nine-county Bay Area into 34 subcounty areas, called “superdistricts.” Superdistricts are combinations of cities, towns and unincorporated areas that allow the public to see more localized growth pattern in Plan Bay Area 2050. The Study Area is located in the North Contra Costa County superdistrict, which includes Clayton, Pleasant Hill, Concord, Lafayette (partial), Pittsburg (partial), and Martinez. The ABAG Plan Bay Area 2050 projects that most of the growth in the region will occur in the cities of San Francisco and San Jose. Households in North Costa Contra County are anticipated to grow by 58 percent and jobs by 52 percent.

TABLE 4.12-6: GROWTH PROJECTIONS

Description	Households				Jobs			
	Existing	Projection	% Growth	Annual % Change ³	Existing	Projection	% Growth	Annual % Change ³
Contra Costa County ¹	383,000	551,000	44%	1.3%	404,000	534,000	32%	0.9%
North Contra Costa County ²	85,000	134,000	58%	1.6%	121,000	184,000	52%	1.5%

SOURCE: CALIFORNIA DEPARTMENT OF FINANCE, 2021; US CENSUS, ONTHEMAP, 2019; ABAG; PLAN BAY 2050 FINAL BLUEPRINT, GROWTH PATTERN, 2021.

NOTES:

1. EXISTING CONDITIONS AND PROJECTIONS FOR CONTRA COSTA COUNTY ARE BASED ON THE 2015 BASELINE AND 2050 FORECAST FROM THE ABAG PLAN BAY 2050.
2. ANNUAL GROWTH IS BASED ON 14 YEAR PLANNING PERIOD FOR MARTINEZ (2021-2035) AND 35 YEAR PLANNING PERIOD FOR CONTRA COSTA COUNTY (2015-2050).

EMPLOYMENT

As shown in Table 4.12-7, Martinez has a labor force participation rate of 68.4 percent among residents aged 16 and older, and an unemployment rate of 4.6 percent. While the unemployment rate for the County is slightly higher than the City, the City and County have similar labor force participation rates, employment to population ratio, and mean travel times to work, only falling within a few percentages (or minutes) compared to one another.

TABLE 4.12-7: LABOR FORCE PARTICIPATION AND UNEMPLOYMENT

Category	Martinez	Contra Costa County
Population 16 Years and Over	31,341	918,776
In Labor Force	21,422	596,982
Labor Force Participation Rate	68.4%	65.0%
Employment/Population Ratio	65.2%	61.4%
Unemployment Rate	4.6%	5.5%
Mean Travel Time to Work (minutes)	33.8	38.5

SOURCE: U.S. CENSUS BUREAU, 2020 AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES; MARTINEZ; CONTRA COSTA COUNTY.

4.12.2 REGULATORY SETTING

STATE

Regional Housing Needs Plan

California General Plan law requires each city and county to have land zoned to accommodate a fair share of the regional housing need. The State determines the fair-share allocated to each region. The share is known as the Regional Housing Needs Allocation (RHNA). The RHNA for the Bay Area is based on a Regional Housing Needs Plan (RHNP) developed by the local council of government. ABAG is the lead agency for developing the RHNP for a nine-county area that includes Contra Costa County and the City of Martinez. The City's RHNA that covers the planning period from mid-2015 through 2023 includes 469 housing units.

The ABAG RHNA Plan for the 2023 through 2031 planning period was adopted in January 2022. The ABAG RHNA Plan assigns the City of Martinez 1,345 units for the 2023-2031 planning period. A detailed discussion of the 2023-2031 RHNA Cycle will be included in the City's 2023-2031 Housing Element Update. In developing the method for distributing the regional housing needs, ABAG gave increased weight to areas along major transit corridors and where there are a high number of existing jobs as well as employment growth. The new method is intended to allocate fewer units to outlying areas to reduce development pressures on agricultural lands and areas further from job centers. This new approach has resulted in a higher "fair share" housing need for Martinez for the 2023-2031 planning period compared to the allocation for the 2015-2023 planning period.

Table 4.12-8 summarizes Martinez's RHNA from 2015-2023 and 2023-2031 by income level.

TABLE 4.12-8: CITY OF MARTINEZ REGIONAL HOUSING NEEDS ALLOCATION

Income Level	2015-2023		2023-2031	
	Units	Percent	Units	Percent
Very Low (0-50% AMI)	124	26.4%	350	26.0%
Low (51-80% AMI)	72	15.6%	201	15.0%
Moderate (81-120% AMI)	78	16.6%	221	16.4%
Above Moderate (120%+AMI)	195	41.6%	573	24.6%
Total	469	100%	1,345	100%

SOURCE: ABAG RHNA, 2013 & 2022.

NOTE: PERCENT TOTALS MAY NOT BE EXACT DUE TO ROUNDING

California Relocation Assistance Act

The California Relocation Assistance Act (Government Code Section 7260 et seq.) establishes uniform policies to provide for the fair and equitable treatment of people displaced from their homes or businesses as a direct result of state and/or local government projects or programs. The California Relocation Assistance Act requires that comparable replacement housing be made available to displaced persons within a reasonable period of time prior to the displacement. Displaced persons or businesses are assured payment for their acquired property at fair market value. Relocation assistance in the form of advisory assistance and financial benefits would be provided at the local level. This includes aid in finding a new home location, payments to help cover moving costs, and additional payments for certain other costs.

LOCAL

Plan Bay Area 2050

Plan Bay Area 2050 is the Bay Area’s regional long-range plan adopted by Metropolitan Transportation Commission (MTC) and ABAG. Thirty-five strategies make up the heart of the plan to improve housing, the economy, transportation and the environment across the Bay Area’s nine counties. A major goal of this Plan is to make the Bay Area more equitable for all residents and more resilient to unexpected challenges. Each strategy in Plan Bay Area 2050 has been crafted to advance equity, with particular attention paid to the needs of people living in Equity Priority Communities.

2015-2023 City of Martinez Housing Element

The Housing Element is one of the eight (including environmental justice) General Plan Elements that are mandated by the State of California (California Government Code Sections 65580 to 65589.8). California State law requires that the Housing Element consists of, “an identification and analysis of existing and projected housing needs and a statement of goals, policies, quantified objectives, financial resources, and scheduled programs for the preservation, improvement, and development of housing” (Government Code Section 65580).

The Housing Element is a guide for housing within Martinez and provides an indication of the need for housing in the community in terms of affordability, availability, adequacy, and accessibility. The Housing Element provides a strategy to address housing needs and identifies a series of specific housing programs to meet community needs.

This Housing Element focuses on the 2015-2023 planning period, consistent with the City’s RHNA and State law requirements. The City’s share of the regional housing need for the 2015-2023 RHNA period was allocated by ABAG based on factors such as existing need, recent growth trends, income distribution, and capacity for future growth. The Housing Element identifies adequate land with appropriate zoning and development standards to accommodate its allocation of the regional housing need. Table 4.12-8, shows the City’s RHNA for the 2015-2023 planning period.

Measure J

Measure J, approved by Contra Costa County voters in November 2004, provides for the continuation of a half-cent transportation sales tax until 2034. The funds generated from the tax will be used for projects and programs as set forth in the voter-approved Expenditure Plan. Measure

J requires each jurisdiction in Contra Costa County to comply with all of the following components of its Growth Management Program:

- Adopt a Growth Management Element;
- Adopt a Development Mitigation Program;
- Participate in a Cooperative, Multi-Jurisdictional Planning Process to Reduce Cumulative Regional Traffic Impacts of Development;
- Address Housing Options;
- Develop a Five-Year Capital Improvement Program;
- Adopt a Transportation Systems Management Ordinance or Resolution; and
- Adopt an Urban Limit Line. Cities that do not adopt a ULL default to the voter-approved Countywide ULL, adopted under Measure C in 1990. Note: The City adopted the Countywide ULL.

City of Martinez General Plan

The adopted City of Martinez General Plan addresses population and housing in the Housing, Growth Management, and Land Use Elements. Please refer to the Housing Element for a discussion of housing production and planning for the City.

4.12.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on population and housing if it will:

- 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); or
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

IMPACTS AND MITIGATION MEASURES

Impact 4.12-1: General Plan implementation has the potential to induce substantial 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)

This EIR evaluates the maximum projected development that could occur within the existing City limits and SOI if land in the City developed at or near the higher end of densities and intensities allowed under the proposed General Plan Update. The proposed General Plan Update accommodates future growth in Martinez, including new businesses, expansion of existing

4.12 POPULATION AND HOUSING

businesses, and new residential uses, as well as infrastructure and services that would need to be extended to accommodate future growth.

Table 2-3 in Section 2.0, Project Description, summarizes the maximum level of new development that may occur within the existing City Limits and SOI under General Plan Update build out conditions. Build out of the proposed General Plan Update could yield up to 2,060 new residential units and approximately 2.8 million square feet of new non-residential development in the Study Area. This new growth would increase the Study Area's population by approximately 5,150 residents (based on the 2021 California Department of Finance estimated household size of 2.50 persons per household). Full buildout of the proposed General Plan Update within the Study Area would result in a maximum total population of approximately 41,977. The proposed General Plan Update would also provide additional employment opportunities of approximately 2,564 employees (assumes one employee generated for every 549 square feet of commercial space, every 324 square feet of office space, and every 557 square feet of industrial space).

Given the historical and current population, housing, and employment trends, overall growth in the City, as well as the entire State, is inevitable. The primary factors that account for population growth are natural increase and net migration. The average annual birth rate (total number of live births per 1,000) for California in 2017 was 11.9 (National Vital Statistics Reports, 2018). Other factors that affect growth include the cost of housing, the location of jobs, the economy, the climate, and transportation. While these factors would likely result in growth in Martinez during the planning period of the proposed General Plan Update, growth will continue to occur based primarily on the demand of the housing market and demand for new commercial, industrial, and other non-residential uses.

Currently, the City of Martinez represents approximately four percent of the housing units, and approximately 5.5 percent of jobs within the Contra Costa County. The City is projected to represent approximately three percent of the Contra Costa housing stock and approximately 4.6 percent of jobs in the County by 2035. This indicates that while there is growth occurring in the City, the County is growing at a more rapid pace, providing increased housing and job opportunities within the County but outside the City limits; refer to Section 3.0, Basis of Cumulative Analysis, for further discussion.

Further, growth anticipated by the General Plan Update would improve the City's jobs/housing balance by providing additional employment opportunities for residents to potentially work in the area. The jobs/housing ratio is used as a general measure of balance between a community's employment opportunities and the housing needs of its residents. A ratio of 1.0 or greater generally indicates that a community provides adequate employment opportunities, potentially allowing its residents to work within the community (rather than commuting to neighboring cities). Under existing conditions, the City's jobs/housing ratio is 0.68 and at buildout assumed by the General Plan Update, the City's jobs/housing ratio would increase to approximately 1.25. Therefore, it can be assumed that some of the existing residents within the area who currently commute outside of the City for jobs could potentially remain in the area to work due to the potential availability of approximately 2,564 new jobs anticipated by the General Plan Update. Therefore, the General Plan Update would beneficially impact the City's jobs/housing balance by improving the jobs/housing ratio when compared to existing conditions.

As future development occurs under the proposed General Plan Update, new roads, infrastructure, and services would be necessary to serve the development, and this infrastructure would accommodate planned growth. The City has adopted a Growth Management Element to ensure that future growth would be adequately accommodated. Goal GM-G-1 ensures the management of the City growth and protects open space by establishing and maintaining an Urban Limit Line (ULL). GM-G-2 ensures that adequate infrastructure and facilities, including new and improved pedestrian, bicycle, parking and transit facilities, are provided to meet future demands of new development and population growth. GM-G-3 establishes collaboration in on-going multi-jurisdictional transportation planning programs, such as, the Regional Transportation Planning Committee (RTPC) and Contra Costa Transportation Agency (CCTA) that reflect the nature of the County's land use and circulation system by focusing on facilities that serve regional travel demand, in order to create a balanced, safe and efficient transportation system and to manage the impacts of growth. Goal GM-G-4 ensures the City makes reasonable progress towards providing housing opportunities for all income levels and demonstrates reasonable progress in meeting housing goals, and is supported by Policy GM-P-4.1 that ensures the City prepare a biennial report on the implementation of actions outlined in the Housing Element for submittal to CCTA as part of the biennial GMP Compliance Checklist. The report will demonstrate reasonable progress using one of the following three options:

- a. Compare the number of housing units approved, constructed or occupied within the jurisdiction over the preceding five years with the number of units needed on average each year to meet the housing objectives established in the Housing Element; or
- b. Illustrate how the City has adequately planned to meet the existing and projected housing needs through the adoption of land use plans and regulatory systems which provide opportunities for, and do not unduly constrain housing development; or
- c. Illustrate how the City's General Plan and zoning regulations facilitate the improvement and development of sufficient housing to meet those objectives.

Growth under the proposed General Plan Update would remain within the general growth levels projected statewide, and would not be anticipated to exceed any applicable growth projections or limitations that have been adopted to avoid an environmental effect. The proposed General Plan Update is intended to accommodate the City's fair share of Statewide housing needs, which are allocated by ABAG, and based on regional numbers provided by the California Department of Housing and Community Development on a regular basis (every five to eight years).

The proposed General Plan Update includes goals and policies that mitigate environmental impacts associated with growth, such as air quality, noise, traffic, water supply, and water quality effects. Additionally, this Draft EIR includes mitigation measures, where appropriate, to reduce or eliminate potentially significant impacts associated with specific environmental issues associated with growth. Sections 4.1 through 4.16 provide a discussion of environmental effects associated with development allowed under the proposed General Plan Update.

With implementation of General Plan Update policies intended to guide growth to appropriate areas and provide services necessary to accommodate growth, the proposed General Plan Update would not induce growth that would exceed adopted thresholds. Land uses allowed under the proposed General Plan Update, and the policy framework provided therein, also help ensure the project would

not induce growth that would exceed these adopted thresholds. Therefore, population and housing growth associated with the proposed General Plan Update would result a **less than significant** impact.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Growth Management Element

Goals

- GM-G-1 Manage the City's Growth and Protect Open Space by Establishing and Maintaining an Urban Limit Line (ULL). Apply a voter approved Urban Limit Line (ULL) consistent with the requirements of the Measure J Growth Management Program (GMP), either as mutually voted on Countywide, or relating solely to Martinez. The ULL can only be amended by a subsequent vote of the electorate; minor adjustments of less than 30 acres may be approved by the City Council as provided for by the Measure J GMP.
- GM-G-2 Provide adequate infrastructure and facilities, including new and improved pedestrian, bicycle, parking and transit facilities, to meet future demands of new development and population growth.
- GM-G-3 Participate in on-going multi-jurisdictional transportation planning programs, such as with other agencies, the Regional Transportation Planning Committee (RTPC) and CCTA that reflect the nature of the County's land use and circulation system by focusing on facilities that serve regional travel demand, in order to create a balanced, safe and efficient transportation system and to manage the impacts of growth.
- GM-G-4 Make reasonable progress in providing housing opportunities for all income levels and demonstrate to CCTA reasonable progress in meeting housing goals.

Policies

- GM-P-4.1 Prepare a biennial report on the implementation of actions outlined in the Housing Element, for submittal to CCTA as part of the biennial GMP Compliance Checklist. The report will demonstrate reasonable progress using one of the following three options:
- Compare the number of housing units approved, constructed or occupied within the jurisdiction over the preceding five years with the number of units needed on average each year to meet the housing objectives established in the Housing Element; or
 - Illustrating how the City has adequately planned to meet the existing and projected housing needs through the adoption of land use plans and regulatory systems which provide opportunities for, and do not unduly constrain housing development; or
 - Illustrating how the City's General Plan and zoning regulations facilitate the improvement and development of sufficient housing to meet those objectives.

Impact 4.12-2: General Plan implementation has the potential to displace substantial numbers of existing people or housing necessitating the construction of replacement housing elsewhere (Less than Significant)

While the proposed General Plan Update does not directly propose any development, it would allow for the development and redevelopment of lands within the City in areas that are both currently occupied and unoccupied by people and existing housing units. The adopted 2015 Housing Element identifies vacant and underutilized parcels within the City that could accommodate new housing. Future housing development within the City will consist of developing vacant parcels, and increased densities of underutilized parcels to meet future needs and housing goals. The proposed General Plan Update would accommodate approximately 2,060 new housing units in the City limits and SOI (865 Single Family units and 1,195 Multi-Family units). As most of the new development would occur through infill, new mixed-use development, and development of vacant parcels, it is not anticipated that substantial numbers of housing or people would be displaced, and that the General Plan Update, therefore, would not require the construction of replacement housing. Future growth will be directed into development areas, which are identified in the Housing Element as the most suitable locations for higher density residential and mixed-use development projects. Additionally, the City's Housing Element Policy 2.4 discourages the loss of housing units and the conversion of residential uses to non-residential uses, unless there is a finding of public benefit and that equivalent housing can be provided for those who have been displaced by the proposed conversion. Further, the General Plan Update Land Use Element contains policies and implementation measures that protect existing residential uses, namely Implementation Measure 1.4a and Policy 4.2.

The proposed General Plan Update includes goals and policies that mitigate environmental impacts associated with growth, including following logical development patterns, and the protection of existing neighborhoods. Therefore, impacts of the proposed General Plan Update on the displacement of people or housing are considered **less than significant** and no mitigation is required.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Land Use Element

Goals

LU-G-2 Preserve and strengthen the City's overall image and create development that enhances the existing character and preserves the natural resources, residential neighborhoods, commercial areas, and small-town historic character of Downtown Martinez to the maximum extent feasible.

Policies

LU-P-1.5 Continue current design review process for all new development, renovation, and remodeling to preserve the existing character of individual neighborhoods.

LU-P-2.5 New multi-family residential development should be visually and functionally integrated and consistent in scale, mass, and character when located within an existing residential neighborhood.

4.12 POPULATION AND HOUSING

- LU-P-4.2 Protect the character of single-family residential neighborhoods through the preservation and improvement of their character-defining features. Such features include but are not limited to tree-lined streets, building orientation, sidewalks, and architectural scale and quality.

Implementation Measures

- LU-I-1.4a Consider revision of the Zoning Ordinance to discourage demolition of older homes by encouraging conversion to multi-family occupancy or alternative uses such as bed and breakfasts, offices, and commercial uses where appropriate. Consider the application of this measure on a site-by-site basis to ensure that housing production goals in the Housing Element are not impeded.
- LU-I-2.2b Support development of housing opportunity sites set forth in the Housing Element in and near Downtown to meet housing goals, utilize existing transportation facilities, and strengthen Downtown commercial businesses.

EJ & Disadvantaged Communities Element

Policies

- EJ-P-20 For the next update of the Housing Element, include information and policies regarding housing cost burden, homelessness, household characteristics, age of housing stock, rental housing stock condition, and inventory of affordable housing.
- EJ-P-22 Continue to Participate in the Contra Costa County Neighborhood Preservation Program and the County Rental Rehabilitation Program. The City will promote the availability of Contra Costa County programs for housing construction, homebuyer assistance, rental assistance, and housing rehabilitation.

Housing Element

Policies

- Policy 2.2 **Conserve Existing Housing.** Conserve the City's housing stock, including existing rental housing and single-family homes that are affordable to low and moderate income households
- Policy 2.4 **Loss of Housing Units.** Discourage the conversion of older residential uses to non-residential uses, unless there is a finding of public benefit and that equivalent housing can be provided for those who have been displaced by the proposed conversion.
- Policy 2.5 **Condominium Conversions.** Regulate the conversion of apartments to condominiums to preserve the existing stock of rental apartments
- Policy 2.6 **Long-Term Protection of Subsidized Housing.** Seek to preserve existing lowcost rental housing for occupancy by lower-income residents.

4.12.4 CUMULATIVE IMPACTS

Cumulative development anticipated in the region may result in impacts to residents and housing, including substantial population growth, housing construction, and displacement. Subsequent projects implemented under the City's General Plan Update would be required to be consistent with the policies and programs of the General Plan Update. The Land Use and Growth Management Elements of the General Plan Update establish policies and implementation measures that are designed to protect existing populations and housing developments. The land uses allowed under the proposed General Plan Update provide opportunities for cohesive new growth in the Study Area, and would not induce substantial unplanned population growth or displace substantial numbers of existing people or housing. New development and redevelopment projects would be designed to provide connectivity between existing development and new development within the cumulative analysis area. The proposed General Plan Update does not include any new roadways, infrastructure, or other features that would induce substantial unplanned population growth. Moreover, with implementation of General Plan Update policies and implementation measures intended to guide growth to appropriate areas and provide services necessary to accommodate growth, the land uses allowed under the proposed General Plan Update, the infrastructure anticipated to accommodate proposed land uses, and the goal and policy framework would not induce growth that would exceed adopted thresholds. Some of these policies and implementation measures include Land Use Policy 1.4, requiring the Design Review process for all new development, renovation, and remodeling, and Housing Policy 2.6, enforcing the long term protection of subsidized housing. Lastly, General Plan Update implementation would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. Therefore, the proposed General Plan Update's incremental contribution to cumulative population and housing impacts would be **less than cumulatively considerable**.

4.12.5 SIGNIFICANT UNAVOIDABLE IMPACTS

Population and housing impacts associated with the implementation of the General Plan Update would be **less than significant**. No significant unavoidable population and housing impacts would occur as a result of the General Plan Update.

4.12.6 REFERENCES

Association of Bay Area Governments (2013), *RHNA: Regional Housing Need Plan: San Francisco Bay Area, 2015-2023*, adopted July 18, 2013.

Association of Bay Area Governments (2021), *RHNA: Final Regional Housing Needs Allocation (RHNA) Plan: San Francisco Bay Area, 2023-2031*, adopted December 2021, updated March 2022.

California Department of Finance (DOF), *E-5 Population & Housing Estimates for Cities, Counties, and the State- January 2010-2021, with 2010 Benchmark; 2010, 2015, 2020, and 2021*, accessed May 5, 2022.

California Department of Finance (DOF), *E-5 Population & Housing Estimates for Cities, Counties, and the State- May 2022*, available at

4.12 POPULATION AND HOUSING

<https://dof.ca.gov/forecasting/demographics/estimates/estimates-e5-2010-2021/>, accessed May 16, 2022

City of Martinez (2011), *Housing Element 2015-2023*.

National Vital Statistics Reports, Volume 67, No. 8 (2018). *Births: Final Data for 2017; Table 8. Birth rates, by age of mother: United States, each state and territory, 2017*. Published November 7, 2018.

US Census Bureau (2020), *American Community Survey, Table DP03 Selected Economic Characteristics; 2020 ACS 5-Year Estimates Data Profiles, Contra Costa County*, available at <https://data.census.gov/cedsci/table?q=contra%20costa%20county&d=ACS%205Year%20Estimates%20Data%20Profiles&tid=ACSDP5Y2020.DP03>, accessed May 12, 2022.

US Census Bureau (2020), *American Community Survey, Table DP03 Selected Economic Characteristics; 2020 ACS 5-Year Estimates Data Profiles, Martinez*, available at <https://data.census.gov/cedsci/table?q=martinez%20ca&d=ACS%205Year%20Estimates%20Data%20Profiles&tid=ACSDP5Y2020.DP03>, accessed May 12, 2022.

US Census Bureau (2020), *American Community Survey, Table DP04 Selected Housing Characteristics; 2020 ACS 5-Year Estimates Data Profiles*, available at [DP04: SELECTED https://data.census.gov/cedsci/table?g=1600000US0646114&d=ACS%205Year%20Estimates%20Data%20Profiles&tid=ACSDP5Y2020.DP04CHARACTERISTICS](https://data.census.gov/cedsci/table?g=1600000US0646114&d=ACS%205Year%20Estimates%20Data%20Profiles&tid=ACSDP5Y2020.DP04CHARACTERISTICS) - Census Bureau Table, accessed May 5, 2022.

This section provides a background discussion and analysis of fire protection services, police services, schools, parks and recreational facilities, libraries, and other community facilities and services. This section is organized with an existing setting, regulatory setting, and impact analysis.

Utilities services, including water, sewer, and solid waste disposal are addressed in Section 4.15, Utilities and Service Systems of this Draft EIR.

4.13.1 ENVIRONMENTAL SETTING

FIRE PROTECTION SERVICES

The CONFIRE, provides fire and emergency medical services to nineteen communities (including Martinez), and the unincorporated areas of the County, serving a population of nearly one million across a 304 square-mile area. CONFIRE operates 26 fire stations, and over 400 employees, and provides service to business, residents, and industry, including several petroleum refineries and chemical manufacturing plants (Contra Costa County, 2022). CONFIRE serves communities including: Walnut Creek, Pleasant Hill, Concord, Pacheco, Martinez, Clayton, Lafayette, Clyde, Briones, El Sobrante, San Pablo, Antioch, Pittsburg, and Bay Point.

The District was originally formed by the merger of the Central Fire Protection District and the Mt. Diablo Fire Protection District in December of 1964. The Martinez Fire Department became part of the Contra Costa County Fire Protection District on July 1, 1968, after passage of Measure F.

EMERGENCY SERVICES DIVISION

The largest division within CONFIRE is the Emergency Services (Operations) Division. It is responsible for emergency medical services (EMS), fire suppression, rescue, hazardous conditions, and all other emergency and non-emergency calls for service. The Operations Division provides “All Risk” emergency and non-emergency services to the community. Services include emergency response to:

- Fires: structure, vegetation, vehicles, miscellaneous
- Medical and Traumatic Emergencies: medical emergencies, vehicle accidents, traumatic injuries, multi-casualty incidents
- Vehicle Rescue: disentanglement and extrication
- Technical Rescue: low- and high-angle, confined space, trench, and water rescue
- Hazardous Materials: spills, leaks, releases at fixed facilities and at rail/roadway incidents
- Hazardous Conditions: electric and natural gas emergencies, flooding, etc.
- Special Operations: preparedness and response to seismic events, petrochemical plants, airports, mass transit, terrorism, marine fires and emergencies, etc.

4.13 PUBLIC SERVICES AND RECREATION

The Operations Division is responsible for ensuring that the citizens are served through an efficient and effective system of services designed to protect life, environment, and property. Part of this system includes staffing and maintaining 26 fire stations located in all of the CONFIRE's major regions (including two operational stations within Martinez). There are 12 Battalion Chiefs assigned to the Operations Division: 10 Shift Battalion Chiefs lead and manage four battalions on three shifts and two Battalion Chiefs lead and manage the Training Division and the Emergency Medical Services Division (CONFIRE, 2022a).

The Division staffs 19 engine companies, five truck companies, and a Shift Training Captain/Safety Officer daily. Minimum daily staffing is 77 personnel. On-duty companies are trained and regularly cross-staff with numerous specialty response units including 18 wildland fire apparatus, three rescue units, a trench rescue unit, a fire rescue boat, and a mobile breathing air support unit.

Each fire protection district earns a rating from the Insurance Service Office (ISO). This rating, known as a Public Protection Classification (PPC), is utilized by many insurance providers to calculate insurance premiums within the district. Ratings range from 1 to 10. Class 1 generally represents superior property fire protection, and Class 10 indicates that the area's fire-suppression program does not meet ISO's minimum criteria.

The PPC ratings are calculated on the following factors:

- Fire alarm and communication systems, including telephone systems, telephone lines, staffing, and dispatching systems;
- The fire department, including equipment, staffing, training, and geographic distribution of fire companies; and,
- The water-supply system, including the condition and maintenance of hydrants, and a careful evaluation of the amount of available water compared with the amount needed to suppress fires.

CONFIRE has an ISO rating of three within the incorporated urban areas, while the unincorporated areas lacking hydrant infrastructure have an ISO rating of eight (Municipal Resource Group, LLC, 2016).

TRAINING AND EDUCATION DIVISION

The Training and Education Division is responsible for the delivery of training programs for the professional development of CONFIRE employees. The Division prepares the employees to provide an effective response force to mitigate emergencies and potential emergencies. The Training and Education Division is responsible for the training and the continued education of the District's uniformed and non-uniformed personnel. It develops and provides district-wide training for new recruits, probationary, and permanent employees.

CONFIRE maintains a Training and Education Center located at 4005 Port Chicago Highway, in Concord (CONFIRE, 2022b). The Training Center was designed to improve fire-rescue training

programs for firefighters within the District. It also allows CONFIRE to provide superior fire-rescue training programs and accessibility to outside public and private entities from within the County. The Center is designed to accommodate a wide range of training programs to benefit law enforcement, EMS, public/private corporations, and community and civic groups.

PUBLIC EDUCATION PROGRAMS

CONFIRE presents numerous public education programs that provide the public with information and resources to prevent not only fires, but also to reduce or prevent injuries and death from causes unrelated to fire. These programs include educational materials to children, adults, and seniors throughout the district, and administers several programs including: Smoke Detector Give-Always, Fire Extinguisher Training, and Safety Fairs (CONFIRE, 2022c).

FIRE PREVENTION BUREAU

The Fire Prevention Bureau exists to provide the highest level of fire prevention through public education, inspection, code enforcement, and detailed plan review to ensure that properties and buildings are properly constructed in accordance with local and state requirements. Fire Prevention Bureau personnel provide communities with the most updated information available to safely maintain homes and places of business from fire and hazards.

The Fire Prevention Bureau provides in-depth services to citizens who live or work in the cities of Antioch, Clayton, Concord, Lafayette, Martinez, Pleasant Hill, Pittsburg, San Pablo, and Walnut Creek, as well as the unincorporated communities of North Alamo, Bay Point, Clyde, East Richmond Heights, El Sobrante, Montalvan Manor, North Richmond, Pacheco, and Tara Hills. The Fire Prevention Bureau also serves the East Contra Costa Fire Protection District under contract, providing fire prevention services for the cities of Brentwood, Oakley and the unincorporated communities of Bethel Island, Byron, and Discovery Bay. It is noted that the East Contra Costa Fire Protection District is in the process of being annexed into CONFIRE; annexation was approved by the Contra Costa County Local Area Formation Commission on March 9, 2022 (Contra Costa County Local Area Formation Commission, 2022).

Under the direction of the Fire Marshal, the Fire Prevention Bureau has five main divisions: Fire Investigation, Code Enforcement and Inspection, Engineering and Plan Review, Public Education, and Exterior Hazard Control. CONFIRE works closely with local building officials to ensure that construction projects are reviewed for fire and life safety impacts (CONFIRE, 2022d).

Fire Stations

CONFIRE currently operates 26 fire stations and a Fire Control Worker Base within its service area, as shown in Table 4.13-1 and on Figure 4.13-1.

TABLE 4.13-1: CONFIRE STATIONS

Station Location	
Station 1: 1330 Civic Dr. Walnut Creek	Station 2: 2012 Geary Road, Pleasant Hill
Station 3: 1520 Rossmoor Pkwy. Walnut Creek	Station 4: 700 Hawthorne Drive, Walnut Creek ¹
Station 5: 205 Boyd Rd. Pleasant Hill	Station 6: 2210 Willow Pass Road, Concord
Station 7: 1050 Walnut Ave. Walnut Creek	Station 8: 4647 Clayton Road, Concord
Station 9: 209 Center Ave. Pacheco	Station 10: 2955 Treat Boulevard, Concord
Station 11: 6500 Center Ave. Clayton	Station 12: 1240 Shell Avenue, Martinez ²
Station 13: 251 Church St. Martinez	Station 14: 521 Jones Street, Martinez
Station 15: 3338 Mt Diablo Blvd. Lafayette	Station 16: 4007 Los Arabis Drive, Lafayette
Station 17: 620 St Mary's Rd. Lafayette	Station 18: 145 Sussex Street, Clyde ¹
Station 19: 1019 Garcia Ranch Rd. Briones	Station 22: 5050 Crystyl Ranch Parkway, Concord
Station 69: 4640 Appian Way. El Sobrante	Station 70: 1800 23 rd Street, San Pablo
Station 81: 315 W 10th. Antioch	Station 82: 196 Bluerock Drive, Antioch
Station 83: 2717 Gentrytown Dr. Antioch	Station 84: 1903 Railroad Avenue, Pittsburg
Station 85: 2331 Loveridge Rd. Pittsburg	Station 86: 3000 Willow Pass Road, Bay Point
Station 87: 800 W Leland Rd. Pittsburg	Station 88: 4288 Folsom Drive, Antioch

SOURCE: CONFIRE, STATIONS, AVAILABLE AT [HTTPS://CCCFPD.ORG/STATION-ADDRESS/](https://cccfdp.org/station-address/), ACCESSED MAY 10, 2022.

NOTES:

1. INDICATES STATIONS THAT ARE CLOSED (AS OF 2022).
2. CREW 12 FIRE CONTROL WORKER BASE IS NOT AN OPERATIONAL FIRE STATION.

The City of Martinez is served primarily by Station 13 located at 251 Church Street, near Pleasant Hill Road, and Station 14 located at 521 Jones Street. Station 12 is also located within City limits however this station is not an operational fire station but rather a Fire Control Worker Base. Stations 13 and 14 are operated by a three-person company, including one Captain, one Engineer, and one Firefighter, with one of the three being a paramedic (Municipal Resource Group, LLC, 2016).

Since CONFIRE assumed responsibility for dispatching all ambulance services, average call processing time has been reduced, along with response times. Minimum response times are established by the County which require that 90 percent of all calls be responded to in an average of between 10 to 11 minutes and 45 seconds – emergency responders have continually been surpassing this key metric, with a full 95-97 percent of calls under target; the average response time in 2018 was 4:38, which was 50 seconds faster than the 2015 average (CONFIRE, 2022e). In the same year (2018), the District responded to nearly 75,000 fire and EMS emergencies and dispatched approximately 95,000 ambulances, providing expert medical care on more than 74,000 ambulance transports (Contra Costa County, 2022).

CONFIRE receives ongoing revenues from existing and new developments that come mainly from property tax revenues. New developments are required to pay fees to CONFIRE for plan review and inspection services. The fees are charged at the time of the plan review. The primary revenue source for the fire districts is property taxes, which depend on the district's share of taxes generated by assessed value within district boundaries (Municipal Resource Group, LLC, 2016).

POLICE PROTECTION SERVICES

The Martinez Police Department provides law enforcement and police protection services throughout the City. The Police Department is a full-service law enforcement agency that is charged with the enforcement of local, State, and federal laws, and with providing 24-hour protection of the lives and property of the public. The Police Department functions both as an instrument of public service and as a tool for the distribution of information, guidance, and direction. The Department is responsible for providing law enforcement services in the City, including patrol, dispatch, crime prevention, parking and traffic control, community policing, community awareness, and investigations. The Department has a Special Weapons and Tactics (SWAT) Team, a K-9 unit, a temporary holding facility, and conducts training.

Martinez Police Department is also involved in the East Bay Regional Communication System, the Contra Costa Mobile Field Force, the regional crime lab, and the Sheriff's Automated Regional Information Exchange System database. The Police Department relies on the Sheriff's Office for search and rescue services and long-term holding facilities, County Animal Control for animal services, and the City of Walnut Creek for bomb squad services. The Sheriff's Department also provides safety services within the City by responding to a City of Martinez "critical incident" in which a request has been made for "mutual aid."

The Police Department provides services to over 36,000 residents covering roughly 12 square miles. Per the City's FY 2021 Financial Report, the Police Department has 37 sworn police officers, one police chief, one police captain, two police lieutenants, and six police sergeants, and one police station, as well as one administrative secretary, three police assistants, one dispatch supervisor, seven police clerk dispatchers, one records supervisor and two records clerks. Previously, the Police Department had been divided into two divisions: Administrative Services and Field Operations. In June of 2011, the Police Chief restructured the Department and consolidated the two divisions into one Operations and Service Division commanded by a Police Captain. The two commander positions and an administrative Sergeant's position were eliminated to create two Police Lieutenant positions. The Police Department then established Neighborhood Policing Areas (NPAs) in which a police officer is assigned to each of the 24 NPAs to facilitate direct contact with residents or businesses within the NPA. The two Lieutenants each oversee two patrol teams and provide accountability to the NPA initiative.

FIELD OPERATIONS AND SERVICES DIVISION

The Police Department patrols 12.3 square miles that are divided into four beats. The City is divided into two patrol sectors, (north and south) with two beats in each sector. The Police Department utilizes solo officer units on patrol and uses reserves and overtime pay to maintain critical staffing as required based upon calls for services data captured by its automated computer aided dispatch (CAD) and records management system. The Neighborhood Policing Areas (NPAs) program ensures that a patrol officer is designated for each of the 24 NPAs. Four Sergeants are assigned to oversee six NPAs each (City of Martinez, 2022a).

4.13 PUBLIC SERVICES AND RECREATION

Crimes by Category in Martinez

Statistics on the number of crimes by category of crime in Martinez during each year (2014, 2015, 2016, 2017, 2018, 2019, and 2020) as reported by the State of California Department of Justice Office of the Attorney General are shown in Table 4.13-2.

As shown in Table 4.13-2, the majority of crimes committed in Martinez consist of non-violent property crimes, primarily larceny-theft.

Service Demand

The Police Department received an average of 30,250 service calls each year between 2017 and 2021, which is approximately 800 service calls per 1,000 residents (Administrative Services Department, 2021). The City reported that it has particularly high demand during special events that increase service demand include Fourth of July, the Peddlers Fair, and the King of the County BBQ—each of which draw an additional 3,000 to 5,000 people (Baraco & Associates, 2011). Table 4.13-3 shows Police Department operating indicators, including police calls for service, for the years 2017-2021.

TABLE 4.13-2: CRIMES BY CATEGORY MARTINEZ (2014-2020)

Category	2014	2015	2016	2017	2018	2019	2020
Population	36,876	37,300	37,544	37,902	38,117	38,290	38,397
Violent Crimes	73	51	51	54	73	83	76
Homicide	2	0	0	0	0	0	1
Rape	5	4	3	7	10	17	12
Robbery	30	22	21	20	32	26	24
Aggravated Assault	36	25	27	27	31	40	39
<i>Violent Crime Rate per 10,000 population</i>	<i>19.80</i>	<i>13.67</i>	<i>13.58</i>	<i>14.25</i>	<i>19.15</i>	<i>21.68</i>	<i>19.79</i>
Property Crimes	974	954	858	619	524	570	559
Burglary	189	164	112	78	73	99	88
Larceny-Theft	593	570	422	318	346	386	338
Vehicle Theft	192	220	324	223	105	85	133
Arson	0	0	0	0	0	11	22
<i>Property Crime Rate per 10,000 population</i>	<i>264.13</i>	<i>255.76</i>	<i>228.53</i>	<i>163.32</i>	<i>137.47</i>	<i>148.86</i>	<i>145.58</i>

SOURCE: CALIFORNIA DEPARTMENT OF JUSTICE OFFICE OF THE ATTORNEY GENERAL, OPEN JUSTICE, CRIMES AND CLEARANCES, [HTTPS://OPENJUSTICE.DOJ.CA.GOV/EXPLORATION/CRIME-STATISTICS/CRIMES-CLEARANCES](https://openjustice.doj.ca.gov/exploration/crime-statistics/crimes-clearances), ACCESSED MAY 26, 2022; UNITED STATES CENSUS BUREAU, AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES (S0101) (YEARS 2014-2020), [HTTPS://DATA.CENSUS.GOV/CEDESCI](https://data.census.gov/cedsci), ACCESSED MAY 26, 2022.

TABLE 4.13-3: PUBLIC SAFETY OPERATING INDICATORS (2017-2021)

Fiscal Year	2017	2018	2019	2020	2021
Police Calls for Service	32,913	28,081	30,702	31,639	27,914
Part I and Part II crimes*	3,633	2,114	721	883	2,091
Physical arrests (adult and juvenile)	1,179	1,014	722	1,454	458
Traffic violations	740	390	567	1,296	255
Parking violations	8,513	8,302	8,734	2,812	516

SOURCE: ADMINISTRATIVE SERVICES DEPARTMENT, CITY OF MARTINEZ COMPREHENSIVE ANNUAL FINANCIAL REPORT FOR THE YEAR ENDED JUNE 30, 2021.

NOTE: * THE UNIFORM CRIME REPORTING (UCR) PROGRAM DIVIDES OFFENSES INTO TWO GROUPS, PART I AND PART II CRIMES. PART I CRIMES ARE CONSIDERED MORE SERIOUS CRIMES AND INCLUDE CRIMINAL HOMICIDE, AGGRAVATED ASSAULT, ETC., WHILE PART II CRIMES INCLUDE VANDALISM, FRAUD, AND DRUG ABUSE VIOLATIONS.

Response times are an important benchmark of police service. Response times can vary greatly depending on the size of the City and department, geographical location, and levels of crime. Calls for service are prioritized into two general categories.

- Priority 1 calls involve an immediate threat to life or crimes that are in progress.
- Priority 2 calls are high priority but do not elevate to the level of an emergency.

To offset new demands for police services the City of Martinez charges an Impact/Mitigation Fee for new development. The fee is utilized by the Police Department to purchase new facilities and equipment as necessary to service new development. The current fee for police impacts is \$411 per single-family and multi-family residential unit; \$0.39 per square foot of retail space, and \$0.05 per square foot of office and industrial space (City of Martinez, 2019).

SCHOOLS

The City of Martinez is primarily served by the Martinez Unified School District (MUSD). MUSD serves approximately 4,700 students in grades K-12 and operates four elementary schools (grades K-5), one middle school (grades 6-8), one high school (grades 9-12), two alternative/independent study schools, and one adult education school. Within the City limits, Mount Diablo Unified School District (MDUSD) operates one elementary school, Hidden Valley Elementary located at 500 Glacier Drive, along the eastern portion of Martinez. Table 4.13-4 shows a list of public schools within Martinez by grade and enrollment.

4.13 PUBLIC SERVICES AND RECREATION

TABLE 4.13-4: PUBLIC SCHOOLS SERVING MARTINEZ

School	Address	Grades Served	Enrollment 2020-2021
Mount Diablo Unified School District (MDUSD)			
Hidden Valley Elementary	500 Glacier Drive	K-5	800
Martinez Unified School District (MUSD)			
John Muir Elementary	205 Vista Way	K-5	392
John Swett Elementary	4955 Alhambra Valley Road	K-5	457
Las Juntas Elementary	4105 Pacheco Boulevard	K-5	303
Morello Park Elementary	1200 Morello Park Drive	K-5	490
Martinez Junior High	1600 Court Street	6-8	832
Alhambra Senior High	101 S 2nd Street	9-12	1,208
Vicente Martinez High	925 Susana Street	9-12	70
Briones (Alternative)	925 Susana Street	K-12	218
Total			4,770

SOURCE: CALIFORNIA DEPARTMENT OF EDUCATION, ENROLLMENT BY GRADE FOR 2020-21.

Over the last decade, the City of Martinez has voted to pass two separate school bonds: Measure K and Measure R. Measure K was passed in 2010 and provided \$45 million in bonds. Measure R was passed in 2016 with 67 percent voter approval and provided \$120 million for the school to address outdated classrooms and inadequate school facilities. In October of 2021, MUSD sold the final series of general obligation bonds from its 2016 Measure R Election.

PARKS AND RECREATION

City Parks

The Recreation Division with the help of the Public Works Department, oversees approximately 235 acres of developed park space (further referred to simply as “park space”) in the City of Martinez. This space is distributed between many parks that vary greatly in terms of size and amenities offered. In some instances, the City has partnered with another institution, such as MUSD to provide additional park space and contribute to the diversity of recreational opportunities through joint use agreements. Table 4.13-5 provides information for parks maintained by the City; the designated park types for Table 4.13-5 are defined as follows:

- **Community Park:** Intended to meet the demands of a large portion of the City, it is larger and offers more, and often more specialized amenities than a neighborhood park.
- **Linear Park (parkway):** A park located along a roadway, waterway, bikeway, or other similar public corridor. There is no standard level of service for linear parks.
- **Memorial Park:** A park with the primary purpose of recognizing and commemorating particular historical events, persons, or places.

- Neighborhood Park: A park developed to serve the recreational needs of a small portion of the City, typically within half a mile of the park. It is usually family- and children-oriented and may have play equipment and/or sports courts and fields.
- Plaza: A formal, generally flat open area characterized by pedestrian walkways and passive features such as benches, fountains, and formal garden planting beds.
- Regional Park: A park that has been developed with a wide range of improvements usually not found in a local community or neighborhood facility and designed to meet the needs of the entire City population as well as people living in nearby communities.
- School Park: A park developed, improved and maintained on school grounds either by the school district or the City that is used by the community or neighborhood at large. This type of park recognizes the lack of existing neighborhood facilities to serve its immediate area and lack of available land in developed areas for new parks.
- Special Use Park: A park designated to meet the specific needs of a particular activity.

Figure 4.13-2 shows the park locations in Martinez.

The City operates 24 official park and plaza spaces. The City's Park Dedication Ordinance (Chapter 21.46 of the Municipal Code) establishes a park to resident ratio of five (5) acres of park space for every 1,000 residents as the standard per subdivision, consistent with the Quimby Act. Martinez residents currently enjoy 7.56 acres of park space per every 1,000 residents (281.02 acres of parkland for 37,195 residents per the 2021 Department of Finance population estimates) on a City-wide basis.

4.13 PUBLIC SERVICES AND RECREATION

TABLE 4.13-5: EXISTING PARK FACILITIES

Park	Location	Park Type	Acreage
Cappy Ricks Park	Brown Street & Arreba Street	Neighborhood	1.9
Ferry Point Picnic Area	North Court Street	Memorial	3.8
Foothills Park	Alhambra Avenue & Chatswood Drive	Linear	2.3
Golden Hills	Bernice Lane & Blue Ridge Drive	Neighborhood	9.6
Highland Avenue Park	1356 Merrithew Street	Neighborhood	0.25
Hidden Lakes Park	Morello Avenue & Chilpancingo Parkway	Community	24
Hidden Valley Park	Redwood Drive & Center Avenue	Community and School*	17
Hidden Valley Linear Park	Center Avenue	Linear	2.3
Holiday Highlands Park	Fig Tree Lane	Neighborhood	2.0
John Muir	205 Vista Way	School*	7.4
John Muir Memorial Park	Vista Way & Pine Street	Plaza	0.42
John Sparacino Park (Alhambra)	Alhambra Avenue	Plaza	0.55
Main Street Plaza	Main Street	Plaza	0.45
Martinez Marina	N Court Street	Community*	60
Morello Park	1200 Morello Park Drive	Community and School*	7.1
Mountain View Park	713 Parkway Drive	Neighborhood*	4.5
Nancy Boyd Park	Pleasant Hill Road East & Church Street	Community and Memorial	7.3
Plaza Ignacio Martinez	Alhambra Avenue & Henrietta Street	Plaza	1
Pine Meadow Park	Vine Hill Way	Neighborhood	9
Rankin Park	100 Buckley Street	Community	42
Susana Street Park	Susana Street & Estudillo Street	Neighborhood	1.2
Steam Train Display	Marina Vista Avenue	Community	0.25
Waterfront Park	245 N. Court Street	Community*	76.5
Veterans Memorial Park	Alhambra Avenue & Bertola Street	Memorial	0.2
Total			281.02

SOURCE: CITY OF MARTINEZ (2021), PARKS & COMMUNITY FACILITIES ELEMENT, TABLE 5-1; CITY OF MARTINEZ, 2022, MARTINEZ PARKS.

NOTE: * DENOTES LEASE IN EFFECT FOR A PORTION OR ALL OF A SPACE

Open Space

In addition to the park facilities offered throughout the City, Martinez residents currently have access to over 410 acres of open space. These natural areas are maintained by the City, East Bay Regional Parks District, and Muir Heritage Land Trust, and provide residents and nonresidents with numerous miles of local and regional trails that support hiking, biking, and horseback riding, scenic view areas, and active and passive recreational opportunities.

Trails

Trails provide opportunities for recreation throughout the City and surrounding areas. Hikers, bikers, and equestrian riders all use trails, although their specific requirements for types of trails may vary. Trails provide recreational value associated with physical fitness and the enjoyment of the natural and scenic environment. Also, some trails provide safe, off-street links between neighborhoods, parks, schools, and other public facilities. The trails system provides access to public places and to scenic vistas that represent a significant natural amenity to the community. Major Trails are documented on Figure 5.1, Existing Major Trails, in the Parks and Community Facilities Element of the General Plan Update.

Public Recreational Facilities

The City of Martinez offers a range of recreational facilities including a water facility, sports fields, and tennis and bocce courts. In addition, other agencies such as MUSD and the East Bay Regional Parks District operate facilities that can be used by the public. The City also provides a variety of recreational programs including preschool activities for young children, sports and swimming programs, summer and school break vacation camps, and adult sports programs. In addition, the Senior Center provides enrichment programs and activities for seniors.

RANKIN AQUATIC CENTER

The Rankin Aquatic Center, located at 100 Buckley Street, includes a play pool with a beach entry, play equipment, and one to three-foot depth teaching area. The lap pool has eight lanes for swim meets and lap swimming with the ability for staff to create three 30-meter lanes for long course swimming. Additionally, the lap pool includes a diving well, self-operating handicap lift and easy access stairs. Bordering the pools are five covered picnic areas for shade. The administration building houses aquatic personnel, and has room for lifeguard classes and in-service trainings.

MARTINEZ MARINA

For more than 40 years the Martinez Marina has been supporting boating and fishing patrons. The Marina includes a boat launch ramp, fishing pier, boat slips, and harbormaster building. Future maintenance of the Marina may include more dredging, break water wall repair, and entrance reconfiguration contingent upon the availability of public and private funding. The City continues to maintain the Marina by upgrading facilities and continued dredging of the water channel.

OTHER PUBLIC FACILITIES

Martinez Public Library

The Martinez Library is a branch of the Contra Costa County Library system and is located on the corner of Court and Ward Streets. The Library maintains nearly 33,000 items including books, magazines, periodicals, compact discs (CDs), digital video discs (DVDs), video and audio cassettes, and other electronic resources such as e-books, which are available on the Library's website. In

4.13 PUBLIC SERVICES AND RECREATION

In addition, the Library provides a variety of services such as self-serve check out, story time, book clubs, craft, music, activity workshops, college prep help, a reading garden, and computers with internet access. In 2011, the Library was renovated with Measure H funds and is not expected to require major infrastructural improvements in the near future.

Senior Center

Located Downtown at 818 Green Street, the Martinez Senior Center promotes educational, recreational and social activities, as well as provides services that meet the needs of the senior citizens of Martinez and surrounding cities. Members must be 50 years of age or older to join the Senior Center. The Senior Center provides a monthly newsletter to their members, which lists on-going activities, tours and special events.

4.13.2 REGULATORY SETTING

FEDERAL

There are no federal regulations applicable to the environmental topics of public services and recreation.

STATE AND LOCAL

Fire Protection and Emergency Response

CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

In accordance with California Code of Regulations Title 8 Sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Equipment" the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all firefighting and emergency medical equipment.

EMERGENCY RESPONSE/EVACUATION PLANS

The State of California passed legislation authorizing the Office of Emergency Services (OES) to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster.

CALIFORNIA FIRE CODE

The California Fire Code contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the California Fire Code include fire department access, fire hydrants,

automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The California Fire Code contains specialized technical regulations related to fire and life safety.

CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION

Under Title 14 of the Natural Resources of the California Code of Regulations (CCR), the California Department of Forestry and Fire Protection (CAL FIRE) has the primary responsibility for implementing wildfire planning and protection for State Responsibility Area (SRA) lands. CAL FIRE develops fire safe regulations and issues fire safe clearances for land within the SRA. The CAL FIRE Resource Management Program manages more than 31 million acres of California's privately-owned wildlands, and provides emergency services in 36 of the State's 58 counties via contracts with local governments.

In addition to fighting and planning for wildland fires, CAL FIRE's responsibilities involve responding to other types of emergencies that may occur on a daily basis, including residential or commercial structure fires, automobile accidents, heart attacks, drowning victims, lost hikers, hazardous material spills on highways, train wrecks, floods, and earthquakes.

Under CCR Title 24, Regulations Development, the Office of the State Fire Marshal is responsible for promulgating regulations that promote fire and life safety for inclusion into the State Building Codes, including the California Building Code, California Fire Code, California Electrical Code, California Mechanical Code, California Plumbing Code, and California Historical Building Code. The process incorporates a great deal of public participation and is guided by the State Building Standards Law.

CALIFORNIA HEALTH AND SAFETY CODE

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code. This includes regulations for building standards (as 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.

ASSEMBLY BILL 1600 MITIGATION FEE ACT

A development impact mitigation fee is a monetary exaction other than a tax or special assessment that is charged by a local governmental agency to an applicant in connection with an approval of a development project for the purpose of defraying all or a portion of the cost of public facilities related to the development project (Government Code Section 66000(b)). The legal requirements for enactment of development impact fee program are set forth in Government Code Sections 66000-66025 (the "Mitigation Fee Act"), the bulk of which were adopted as AB 1600 and thus are commonly referred to as "AB 1600 requirements." A development impact fee is not a tax or special assessment; by its definition, a fee is voluntary and must be reasonably related to the cost of the service provided by the local agency.

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AB 1600 mitigation fees imposed by county ordinance are required to be adjusted on an annual basis, with the exception of the Quimby and Fire fees. The mitigation fees are adjusted automatically on July 1st of each fiscal year, by a percentage equal to the appropriate engineering Construction Cost Index as published by Engineering News Record (ENR) for the preceding twelve months.

CONTRA COSTA COUNTY HAZARD MITIGATION PLAN (2018)

The City adopted the Contra Costa County Hazard Mitigation Plan (Volume 1 and the City of Martinez's portion of Volume 2) on December 5, 2018. The plan serves as its local hazard mitigation plan and fully addresses the requirements of Government Code section 65302(g)(4). The plan incorporates a process where hazards are identified and profiled, the people and facilities at risk are analyzed, and mitigation actions are developed to reduce or eliminate hazard risk. The implementation of these mitigation actions, which include both short- and long-term strategies, involves planning, policy changes, programs, projects, and other activities. The plan covers the unincorporated county, 25 special purpose districts, and 10 municipalities, including the City of Martinez.

MARTINEZ EMERGENCY OPERATIONS PLAN

The Emergency Operations Plan (EOP) identifies the City of Martinez's emergency planning, organization and response policies and procedures. The EOP addresses the City's responsibilities in emergencies associated with an "all hazards" approach in managing natural disasters and human-caused emergencies and provides a framework for coordination of response and recovery efforts within the City in coordination with local, State, and federal agencies, while maintaining the flexibility needed to adapt to various situations that arise.

The EOP addresses the following priorities for emergency services response:

- 1) Preserve the life, health and safety of all citizens;
- 2) Protect public and private property;
- 3) Restore order to the community;
- 4) Safeguard the environment; and
- 5) Ensure cost recovery.

The EOP establishes a phased approach for emergency planning and addresses mitigation, preparedness, response, and recovery. The City EOP was last updated in 2009.

Mitigation Phase

The mitigation phase involves taking proactive efforts to minimize potential effects upon life and property in order to create a safer environment that will result in fewer casualties and lower response costs. This may also include taking actions to strengthen facilities, abate nearby hazards, and reduce the potential damage either to structures or their contents.

Preparedness Phase

The preparedness phase involves taking steps to proactively plan for development of operational capabilities needed in order to respond to a disaster. The EOP includes the development of Standard Operating Procedures (SOPs) and checklists detailing personnel assignments, policies, notification procedures, and resource lists. Personnel should be acquainted with these SOPs and checklists and periodically should be trained in activation and execution. The EOP addresses providing education and training, utilizing nationally recognized preparedness programs such as: CERT (Community Emergency Response Team), PEP (Personal Emergency Preparedness) and American Red Cross courses on First Aid/CPR/AED aid emergency response personnel in providing assistance to the public.

Response Phase

Before an emergency occurs, this phase involves recognition of the approach of a potential disaster where actions are taken to save lives and protect property. Warning systems may be activated and resources may be mobilized, EOCs may be activated and evacuation may begin. As the emergency continues, assistance is provided to victims of the disaster and efforts are made to reduce secondary damage. Response support facilities may be established. The resource requirements continually change to meet the needs of the incident.

Recovery Phase

Recovery is taking all actions necessary to restore the area to pre-event conditions or better, if possible. Therefore, mitigation for future hazards plays an important part in the recovery phase for emergencies.

MARTINEZ DEVELOPMENT FEE PROGRAM

The City of Martinez Development Fee Program contains impact mitigation fees to improve the required infrastructure identified in the City's General Plan. Infrastructure fees related to public services and recreation including parks and recreation, police, and child care facilities are shown in Table 4.13-6.

TABLE 4.13-6: IMPACT MITIGATION FEE SCHEDULE

Impact Mitigation Fees	Land Use Category				
	Single-Family Residential (Per Unit)	Multi-Family Residential (Per Unit)	Retail (Per Sq. Ft.)	Office (Per Sq. Ft.)	Industrial (Per Sq. Ft.)
Transportation	\$2,221	\$1,528	\$2.23	\$1.81	\$0.99
Parks & Recreation	\$2,509	\$1,834	\$1.09	\$1.41	\$0.61
Park In-Lieu	\$5,095	\$3,723	-0-	-0-	-0-
Cultural Facilities	\$3,373	\$2,466	\$1.13	\$1.44	\$0.64
Childcare Facilities	\$432	\$86	\$0.16	\$0.44	\$0.18
Police Facilities	\$411	\$411	\$0.39	\$0.05	\$0.05
Totals	\$14,041	\$10,048	\$5.00	\$5.15	\$2.47

SOURCE: CITY OF MARTINEZ, MASTER FEE SCHEDULE, APRIL 4, 2019.

4.13 PUBLIC SERVICES AND RECREATION

MARTINEZ MUNICIPAL CODE

Title 14, *Emergency Organization and Functions*, of the City's Municipal Code provides for the preparation and carrying out of plans for the protection of persons and property within Martinez in the event of an emergency; the direction of the emergency organization; and the coordination of the emergency functions of the City with all other public agencies, corporations, organizations, and affected private persons. The Title's functions include assigning powers and duties in the case of emergencies and ensuring expenditures made in connection with emergency activities directly protect and benefit the City of Martinez.

Chapter 15.28 ratifies the Contra Costa County Fire Protection District Fire Code, adopting by reference the 2019 California Fire Code (California Code of Regulations, Title 24, Part 9 [based on the 2018 International Fire Code published by the International Code Council]) as amended by the changes, additions, and deletions set forth in the ordinance adopting the Contra Costa County Fire Protection District Fire Code for the same triennial cycle.

Chapter 22.55, *Impact Mitigation Fees*, establishes development impact fees to be paid as a condition of approval for applicable development projects in order to offset the cost of public services, facilities, improvements and amenities generated by the development project.

Law Enforcement

CALIFORNIA PENAL CODE

The California Penal Code establishes the basis for the application of criminal law in California.

MARTINEZ MUNICIPAL CODE

Chapter 22.55, *Impact Mitigation Fees*, establishes impact mitigation fees to be paid as a condition of approval for applicable development projects in order to offset the cost of public services, facilities, improvements and amenities generated by the development project.

Schools

CALIFORNIA GOVERNMENT CODE

The California Government Code states at Section 65995 (h) "The payment or satisfaction of a fee, charge, or other requirement levied or imposed pursuant to Section 17620 of the Education Code in the amount specified in Section 65995 and, if applicable, any amounts specified in Section 65995.5 or 65995.7 are hereby deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization as defined in Section 56021 or 56073, on the provision of adequate school facilities."

CALIFORNIA DEPARTMENT OF EDUCATION

The California Department of Education (CDE) School Facilities Planning Division (SFPD) prepared a School Site Selection and Approval Guide that provides criteria for locating appropriate school sites in the State of California. School site and size recommendations were changed by the CDE in 2000 to reflect various changes in educational conditions, such as lowering of class sizes and use of advanced technology. The expanded use of school buildings and grounds for community and agency joint use and concern for the safety of the students and staff members also influenced the modification of the CDE recommendations.

Specific recommendations for school size are provided in the School Site Analysis and Development Guide. This document suggests a ratio of 1:2 between buildings and land. CDE is aware that in a number of cases, primarily in urban settings, smaller sites cannot accommodate this ratio. In such cases, the SFPD may approve an amount of acreage less than the recommended gross site size and building-to-ground ratio.

Certain health and safety requirements for school site selection are governed by state regulations and the policies of the SFPD relating to:

- Proximity to airports, high-voltage power transmission lines, railroads, and major roadways;
- Presence of toxic and hazardous substances;
- Hazardous facilities and hazardous air emissions within one-quarter mile;
- Proximity to high-pressure natural gas lines, propane storage facilities, gasoline lines, pressurized sewer lines, or high-pressure water pipelines;
- Noise;
- Results of geological studies or soil analyses; and
- Traffic and school bus safety issues.

THE KINDERGARTEN-UNIVERSITY PUBLIC EDUCATION FACILITIES BOND ACT OF 2002 (PROP 47)

This act was approved by California voters in November 2002 and provides for a bond issue of \$13.05 billion to fund necessary education facilities to relieve overcrowding and to repair older schools. Funds will be targeted at areas of greatest need and must be spent according to strict accountability measures. Funds will also be used to upgrade and build new classrooms in the California Community Colleges, the California State University, and the University of California in order to provide adequate higher education facilities to accommodate growing student enrollment.

LEROY F. GREENE SCHOOL FACILITIES ACT OF 1998 (SB 50)

The “Leroy F. Greene School Facilities Act of 1998,” also known as Senate Bill No. 50 or SB 50 (Chapter 407, Statutes of 1998), governs a school district’s authority to levy school impact fees. This comprehensive legislation, together with the \$9.2 billion education bond act approved by the voters in November 1998 known as “Proposition 1A”, reformed methods of school construction financing in California. SB 50 instituted a new school facility program by which school districts can apply for

state construction and modernization funds. It imposed limitations on the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development and provided the authority for school districts to levy fees at three different levels:

- Level I fees are the current statutory fees allowed under Education Code 17620. This code section provides the basic authority for school districts to levy a fee against residential and commercial construction for the purpose of funding school construction or reconstruction of facilities. These fees vary by district for residential construction and commercial construction and are increased biannually.
- Level II fees are outlined in Government Code Section 65995.5, allowing school districts to impose a higher fee on residential construction if certain conditions are met. These conditions include having a substantial percentage of students on multi-track year-round scheduling, having an assumed debt equal to 15–30 percent of the district’s bonding capacity (percentage is based on revenue sources for repayment), having at least 20 percent of the district’s teaching stations housed in relocatable classrooms, and having placed a local bond on the ballot in the past four years which received at least 50 percent plus one of the votes cast. A Facility Needs Assessment must demonstrate the need for new school facilities for unhoused pupils is attributable to projected enrollment growth from the construction of new residential units over the next five years.
- Level III fees are outlined in Government Code Section 655995.7. If State funding becomes unavailable, this code section authorizes a school district that has been approved to collect Level II fees to collect a higher fee on residential construction. This fee is equal to twice the amount of Level II fees. However, if a district eventually receives State funding, this excess fee may be reimbursed to the developers or subtracted from the amount of state funding.

Parks

QUIMBY ACT

The Quimby Act (California Government Code Section 66477) states that “the legislative body of a city or county may, by ordinance, require the dedication of land or impose a requirement of the payment of fees in lieu thereof, or a combination of both, for park or recreational purposes as a condition to the approval of a tentative or parcel map.” Requirements of the Quimby Act apply to the acquisition of new parkland; however, Quimby Act fees may be used for both acquisition and physical development of new or existing park facilities. The Quimby Act seeks to preserve open space needed to develop parkland and recreational facilities; however, the actual development of parks and other recreational facilities is subject to discretionary approval and is evaluated on a case-by-case basis with new residential development. The City has adopted park fees as allowed by the Quimby Act, as described in greater detail below.

MARTINEZ PARKS SYSTEM MASTER PLAN (2007-2012)

The Martinez Park System Master Plan is designed to provide an assessment of the current system and a vision for the future. The Master Plan establishes the goals, objectives, and policies to guide public planning in the acquisition, development and rehabilitation of parks, open spaces, trails and recreation opportunities in the City of Martinez. The Master Plan established nearly 15 guiding principles for itself, some key principles are:

- Establish long-term policies that promote the safety, comfort and enjoyment of the park system users.
- Promote recreation for children and adults that will improve their physical health and mental well being, with an emphasis on outdoor recreational experiences.
- Listen to the changing desires of the park users and community to be flexible in park dedications.

MARTINEZ MUNICIPAL CODE

The City enacted Chapter 21.46, *Park Dedication*, pursuant to the authority granted by the Subdivision Map Act of the State of California. The park and recreation facilities for which dedication of land and/or payment of fee required by this Chapter are in accordance with the General Plan of the City of Martinez, and the adopted Park System Master Plan. Section 21.46.030 establishes that the basic standard for the public interest, convenience, health, welfare and safety requires five (5) acres of property for each one thousand (1,000) persons residing within a subdivision within the City be devoted to local park and recreational purposes. Under the Quimby Act, this standard is applied on a subdivision by subdivision basis.

Chapter 22.55, *Impact Mitigation Fees*, establishes impact mitigation fees to be paid as a condition of approval for applicable development projects in order to offset the cost of public services, facilities, improvements and amenities generated by the development project.

MARTINEZ GENERAL PLAN

The adopted City of Martinez General Plan provides policy direction regarding public services and facilities in the Land Use, Parks and Recreation, and Community Facilities Elements.

4.13.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on public services if it will:

- 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

4.13 PUBLIC SERVICES AND RECREATION

impacts in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

- Fire Protection
- Police Protection
- Schools
- Parks
- Other public facilities
- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

IMPACTS AND MITIGATION MEASURES

Impact 4.13-1: General Plan implementation could result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services including: Fire protection (Less than Significant)

Development accommodated under the General Plan Update would result in additional residents and businesses in the City, including new residential, commercial, office, and industrial uses. Based on the anticipated growth, as described in Section 2.0, Project Description, 2035 buildout under the General Plan Update could yield a net change over existing conditions of an additional 2,060 housing units, an additional population of 5,150 residents, nearly three million square feet of non-residential building space, and an additional 2,564 employees within the Study Area.

Future development projected in the General Plan Update may result in the need for additional CONFIRE resources (i.e., additional staffing, equipment, expanded/new facilities). At this time, it is unknown whether CONFIRE would need to expand or construct new facilities to meet the demand of future development in the Study Area. Future development is assumed to occur over time through 2035; thus, any increase in demand for fire protection services would occur gradually as additional development and associated population growth is added to the City.

The General Plan Update includes a range of goals, policies, and implementation measures to ensure that public services are provided in a timely fashion, are adequately funded, are coordinated between the City and appropriate service agencies, and that new development funds its fair share of services. The General Plan Update includes policies to ensure that fire protection services keep pace with new development and services are adequately planned and provided. The Growth

Management Element includes Goal GM-6 to provide for compliance with applicable levels of service. Policies GM-P-6.1 and GM-P-6.2 support this goal by requiring new development to contribute to, and maintain an accepted performance standards for fire and emergency response and services, and requiring the City to adopt and maintain a development mitigation program to ensure new development pays its share of costs associated with the associated growth.

CONFIRE would continue to regularly monitor fire department resources to ensure that adequate facilities, staffing, and equipment are available to serve existing and future development and population increases. Further, as development occurs, a proportional increase in property tax, charges for CONFIRE services, and other funding sources would increase and offset impacts of new development on CONFIRE's existing resources in the City. Chapter 22.55 of the City's Municipal Code requires development impact fees be paid as a condition of approval for applicable development projects in order to offset the cost of public services and facilities, including fire protection, facilities, improvements and amenities generated by the development project.

New development projected in the General Plan Update would be required to comply with all applicable California Fire Code requirements for construction, access, water mains, fire flows, and hydrants. Individual project development plans would be reviewed by the City to determine specific fire requirements (e.g., fire flow capacities, emergency access, fuel modification plans) applicable to the specific development and to ensure compliance with these requirements. The General Plan Update also includes goals, policies, and implementation measures to reduce potential impacts associated with fire hazards. Goal PS-G-4 of the Public Safety Element, provides for protection from potential fire hazards and is supported by Policy PS-P-4.1, that ensures necessary maintenance to open space brush areas that are susceptible to burning. Public Safety Policy PS-P-4.3 ensures continued collaboration and work with the Contra Costa Fire Department to make Martinez more resilient to fire hazards. PS-P-4.6 encourages the use of fire retardant vegetation for landscaping, especially in high fire hazard areas. PS-P-4.5 supports the review, amendment, and update, at regular intervals, all relevant City codes and ordinances to incorporate the most current knowledge and highest standards for safety. PS-I-4.1b ensures the review of current building and planning codes to require new developments and renovations to comply with the California Building Code, California Fire Code and local ordinances for construction and adequacy of water flow and pressure, ingress/egress and other measures for fire protection. PS-I-5.3.f ensures the location of public facilities, such as schools and hospitals are not located in Fire Hazard Severity Zones and, if they are, in the event of a fire they can safely evacuate and or operate.

As previously stated, new fire facilities would potentially be needed to serve growth contemplated in the General Plan Update. The environmental effect of providing the fire protection and emergency services is associated with the physical impacts of providing new and expanded facilities. The specific impacts of providing new and expanded facilities cannot be determined at this time, as the General Plan Update does not propose or authorize development nor does it designate specific sites for new or expanded public facilities. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the facilities would likely be similar to those associated with new development,

redevelopment, and infrastructure projects under the General Plan Update. These impacts are described in the relevant sections (Sections 4.1 through 4.16) of this Draft EIR. Any future development under the General Plan Update would be required to comply with regulations, policies, and standards included in the General Plan Update, and would be subject to CEQA review as appropriate. Therefore, impacts related to the provision of fire protection and emergency services are **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Land Use Element

Goals

- LU-G-1 Promote a balanced land use pattern, a mix of which enhances community character and serves the needs of existing and future residents. Encourage land use development to occur in an orderly fashion and in pace with the expansion of public facilities. Provide appropriate transitions between single family neighborhoods and higher intensity uses. Preserve open space and historic structures.

Public Safety Element

Goals

- PS-G-11 Be prepared to act in emergency situations.
- PS-G-12 Provide effective, efficient, and immediately available Community Preparedness programs response in the event of a natural or man-made disaster.

Policies

- PS-P- 4.1 Perform necessary maintenance on open space brush areas that are susceptible to burning.
- PS-P- 4.2 Prevent the invasion of grassland by Baccharis (a genus of perennials and shrubs that are highly flammable) by retaining grazing on publicly owned rangelands and integrating grazing practices within developed areas.
- PS-P-4.3 Continue to work with Contra Costa Fire Department to make Martinez more resilient to fire hazards.
- PS-P-4.4 Work with Contra Costa Fire Department to promote public awareness of fire hazards and safety measures, including outreach to at-risk populations, and identification of low risk areas for temporary shelter and refuge during wildfire events.
- PS-P-4.5 Review, amend, and update, at regular intervals, all relevant City codes and ordinances to incorporate the most current knowledge and highest standards for safety.
- PS-P-4.6 Encourage the use of fire retardant vegetation for landscaping, especially in high fire hazard areas.

- PS-P-5.1 Require fire safe construction practices, such as fire preventive site design, landscaping and building materials, and installation of sprinklers on new development and redevelopment projects.
- PS-P-5.2 Encourage landscaping maintenance programs to reduce potential fire hazards in the hills, wildland areas and urban interface.
- PS-P-5.3 Reduce fire hazard risks in existing developments by ensuring that private property is maintained to minimize vulnerability.
- PS-P-11.1 Use the City's Emergency Response Plan as the guide for emergency management in Martinez.
- PS-P-11.2 Encourage critical public facilities to remain operative during emergencies.
- PS-P-11.3 Promote greater community awareness and preparedness by working with business associations, homeowners' associations, community groups, and utility providers, including outreach to at-risk populations.
- PS-P-11.4 Encourage coordination of emergency drills with the Contra Costa County Fire Protection District, County Sheriff, and the City Police Department, so that the Plan's implementation during an emergency will happen smoothly.
- PS-P-12.1 Maintain efficient and effective City government operations in case of any catastrophic emergency or disaster.
- PS-P-12.2 Maintain a current disaster management operations plan and adequately train personnel, including City employees.

Implementation Measures

- PS-I-4.1a Work with Contra Costa Fire Protection District to support and consider providing fire safety demonstrations at public schools, civic and local organizations, businesses, industries, institutions and public gatherings, including outreach to at-risk populations.
- PS-I-4.1b Review current building and planning codes to require new developments and renovations to comply with the California Building Code, Fire Code and local ordinances for construction and adequacy of water flow and pressure, ingress/egress and other measures for fire protection.
- PS-I-5.3a Implement requirements for non-combustible roofs and exterior siding in high fire areas. Continue to enforce regulations related to fire resistant construction, sprinkler systems, and early warning fire detection system installation.
- PS-I-5.3b Through the project review process, continue to ensure that landscaping, lighting, lighting, building siting and design, adequate water pressure and peak load storage capacity, and building construction materials reduce the opportunity for fire hazards.

- PS-I-5.3c Continue to require access for emergency vehicles and firefighting equipment on all new development and redevelopment projects. The City shall also identify the feasibility of constructing additional emergency access improvements for existing developments that do not meet minimum road standards for emergency equipment, such as:
- a) Additional vehicle pullouts at key hillside locations.
 - b) Limiting or restricting on-street parking at key hillside locations.
 - c) Potential for construction of new or improved emergency access routes.
 - d) Roadside clearance improvements.
- PS-I-5.3d Continue to implement the Contra Costa Fire Protection District Fire Code and *Contra Costa County Wildfire Protection Plan* including measures for defensible space, firefighting access, and construction standards.
- PS-I-5.3e Periodically update and adopt CALFIRE maps identifying fire hazard areas in Martinez.
- PS-I-5.3f Ensure the location of public facilities, such as schools and hospitals are not located in Fire Hazard Severity Zones and, if they are, in the event of a fire they can safely evacuate and or operate.
- PS-I-5.3g Continue to consider the requirement of vegetation management plans in all new development. The City shall also identify the feasibility of other vegetation management options, including:
- a) Increased landscaping safety through elimination of use of fire-hazardous plants.
 - b) Use of non-prolific landscaping species.
 - c) Requiring project proponents in hillside areas to evaluate and upgrade as necessary fire flows and water supplies to hillside areas.
- PS-I-5.3h Continue to require use of construction materials that decrease fire hazards in new developments in hillside areas, including mandatory use of spark arresters on chimneys. Include development standards per the statewide Fire Safe Regulations (see CCR, Title 14, Sections 1270 et seq.).
- PS-I-5.3i Require the use of fire-safe planting materials in landscape plans for new development, including the use of non-prolific species. Include development standards requiring the same in the Design Guidelines.
- PS-I-5.3j Provide information on methods for reducing fire hazards through the City's website and newsletter, including information on clearing of plant debris and combustible materials, use of fire-safe landscaping and defensible space, and modifying buildings to make them fire-resistant.
- PS-I-11.3a Provide relevant community groups and businesses with an overview of the City's Emergency Response Plan and periodically inform them of updates to the Plan when necessary.

- PS-I-12.1a Provide annual training for City employees and update the emergency preparedness plan.
- PS-I-12.1b Conduct seminars and make public presentations on personal, family and neighborhood emergency preparedness when possible.
- PS-I-12.1c Encourage public participation in the Community Emergency Response Team (CERT) program.
- PS-I-12.2a Utilize the City's Disaster Council as needed to coordinate the utilization of resources and evaluate the safety and condition of structures following wildfire events and other man-made and natural disasters.

Growth Management Element

Policies

- GM-P-6.1 Ensure and require that new development contribute to and maintain adopted an accepted performance standards for police, fire and emergency medical response and services.
- GM-P-6.2 Adopt and maintain in place a development mitigation program to ensure new growth is paying its share of the costs associated with that growth.

Growth Management Element

Goals

- GM-6 Compliance with applicable levels of service

Policies

- GM-P-6.1 Ensure and require that new development contribute to and maintain adopted an accepted performance standards for police, fire and emergency medical response and services.
- GM-P-6.2 Adopt and maintain in place a development mitigation program to ensure new growth is paying its share of the costs associated with that growth.

Impact 4.13-2: General Plan implementation could result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services including: Police protection (Less than Significant)

Development accommodated under the General Plan Update would result in additional residents and businesses in the City, including new residential, commercial, office, and industrial uses. Based on the anticipated growth, as described in Section 2.0, Project Description, 2035 buildout under the General Plan Update could yield a net change over existing conditions of an additional 2,060 housing units, an additional population of 5,150 residents, nearly three million square feet of non-residential building space, and an additional 2,564 employees within the Study Area.

Development accommodated under the General Plan Update would result in additional residents and businesses in the City, which would increase demand for police protection services provided by Martinez PD. Additional facilities, personnel, and equipment may be required to maintain adequate levels of police protection within the City. Development assumed by the General Plan Update is expected to occur gradually over time through 2035; thus, any increase in demand for police protection services would similarly occur gradually as additional development and associated population growth is added to the City. Martinez PD would utilize the projected growth in population, dwelling units, and nonresidential development to effectively plan for increases in population and police protection service demand. Additionally, as individual projects are proposed within the City, Martinez PD service levels and staffing requirements would be evaluated to determine if additional staffing and/or facilities would be required.

The General Plan Update includes a range of goals, policies, and implementation measures to ensure that police protection services are provided in a timely fashion, are adequately funded, are coordinated between the City and appropriate service agencies, and that new development funds its fair share of services. The Growth Management Element includes Goal GM-6 for the compliance with applicable levels of service. Policies GM-P-6.1 and GM-P-6.2 support this goal by requiring new development to contribute to and maintain adopted and accepted performance standards for police, and emergency response services, and requires the City to adopt and maintain a development mitigation program to ensure new development pays its share of costs associated with the associated growth. In addition to General Plan Update policies, payment of development impact fees adopted by the City would reduce potential impacts to police protection services and facilities associated with implementation of the General Plan Update.

The environmental effect of providing police protection services is associated with the physical impacts of providing new and expanded facilities. The specific impacts of providing new and expanded facilities cannot be determined at this time, as the General Plan Update does not propose or authorize development, nor does it designate specific sites for new or expanded public facilities.

If new police facilities are needed to serve growth associated with future development anticipated by the General Plan Update, the facilities would most likely be provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan Update. Any future development under the General Plan Update would be required to comply with regulations, policies, and standards included in the General Plan Update, and would be subject to CEQA review as appropriate. Therefore, impacts related to the provision of police protection services are **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MITIGATE POTENTIAL IMPACTS

Land Use Element

Goals

- LU-G-1 Promote a balanced land use pattern, a mix of which enhances community character and serves the needs of existing and future residents. Encourage land use development to occur in an orderly fashion and in pace with the expansion of public facilities. Provide appropriate transitions between single family neighborhoods and higher intensity uses. Preserve open space and historic structures.

Growth Management Element

Goals

- GM-6 Compliance with applicable levels of service.

Policies

- GM-P-6.1 Ensure and require that new development contribute to and maintain adopted an accepted performance standards for police, fire and emergency medical response and services.
- GM-P-6.2 Adopt and maintain in place a development mitigation program to ensure new growth is paying its share of the costs associated with that growth.

Public Safety Element

Policies

- PS-P-11.2 Encourage critical public facilities to remain operative during emergencies.
- PS-P-11.4 Encourage coordination of emergency drills with the Contra Costa County Fire Protection District, County Sheriff, and the City Police Department, so that the Plan's implementation during an emergency will happen smoothly.

Impact 4.13-3: General Plan implementation could result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services including: Schools (Less than Significant)

Development accommodated under the General Plan would result in additional residential uses with the potential of school-aged children. Based on the anticipated growth, as described in Section 2.0, Project Description, 2035 buildout under the General Plan Update could yield a net change over existing conditions of an additional 2,060 housing units within the Study Area.

Implementation of the General Plan Update would lead to new population growth within the City limits and Study Area, which would increase the demand for schools and school facilities throughout the City and the Study Area. The City of Martinez is primarily served by MUSD, which serves students grades K-12. Additionally, MDUSD operates one elementary school within City limits. School districts typically use student generation factors to determine the potential number of students that would be generated by the amount of residential development in order to accurately anticipate the needs for new/expanded facilities. Table 4.13-7 identifies the number of potential students that would be generated from development anticipated by the General Plan Update in 2035. While the MDUSD operates with Martinez City limits, it only operates one elementary school in which potential, future Martinez populations may attend; the majority of the projected students would attend MUSD schools and therefore potential student generation is based on MUSD student generation rates.

TABLE 4.13-7: MARTINEZ UNIFIED SCHOOL DISTRICT

Development Type	Estimated Net Increase (households)	Student Generation Rate (students per household)	Total Students Generated ¹
Single-Family Residential	865	0.7	606
Multi-Family Residential	1,195		837
Total			1,443

NOTE:

1. ROUNDED TO THE NEAREST WHOLE NUMBER.

Assuming all new residential development anticipated under the proposed General Plan Update occurs, the proposed project could generate approximately 1,443 students. Accordingly, the potential exists that new facilities would need to be created, or existing facilities would need to be expanded, to accommodate for future population growth.

The exact location of future development and associated student generation is currently unknown. However, future development projected within the General Plan Update is anticipated to occur gradually through 2035 and would be largely based on market demand. Thus, any increase in demand for school services would occur gradually as additional development occurs in the Study

Area. The General Plan Update includes policies and actions, to ensure that adequate services are provided to serve growth associated with implementation of the General Plan Update. Goal PCUG-6 of the Parks and Community Facilities Element would ensure adequate and high quality educational facilities to serve the community is supported by policies and implementation measures, including PCU-P-5.1 which ensures continued maintenance and upgrades to existing educational facilities so there are a wide range of facilities and activities for the community within school properties, and PCUP-P-6.1 supports the continued cooperation with the Martinez Unified School District to assist in obtaining funds from State and federal sources to improve school facilities and performance.

School districts assess development impact fees against residential and non-residential development to mitigate impacts resulting from the increase in demand for school related services. Pursuant to SB 50, payment of fees to the applicable school district is considered full mitigation for project impacts, including impacts related to 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, or other performance objectives for schools. Therefore, individual development projects in accordance with the General Plan Update would be required to pay the statutory fees, so that school facilities can be constructed/expanded, if necessary, at the nearest sites to accommodate the impact of project-generated students, reducing impacts to a less than significant level.

The environmental effect of providing school services is associated with the physical impacts of providing new and expanded facilities. The specific impacts of providing new and expanded facilities cannot be determined at this time, as the General Plan Update does not propose or authorize development of new or expanded school facilities. If the school districts serving the City determine that new school facilities are needed to serve growth associated with future development anticipated by the General Plan Update, the schools would most likely be provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan Update. These impacts are described in the relevant sections (Sections 4.1 through 4.16) of this Draft EIR. Any future development under the General Plan Update would be required to comply with regulations, policies, and standards included in the General Plan Update, and development of school facilities would be subject to CEQA review as appropriate. Therefore, impacts related to the provision of schools are less than significant.

Overall, increased cooperation and coordination between the City and school districts would ensure high-quality school and community facilities throughout Martinez and would not result in significant impacts to school facilities. As such, the General Plan Update would result in a **less than significant impact** on school services and facilities.

4.13 PUBLIC SERVICES AND RECREATION

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Land Use Element

Goals

- LU-G-1 Promote a balanced land use pattern, a mix of which enhances community character and serves the needs of existing and future residents. Encourage land use development to occur in an orderly fashion and in pace with the expansion of public facilities. Provide appropriate transitions between single family neighborhoods and higher intensity uses. Preserve open space and historic structures.

Parks, Community Facilities and Utilities Element

Policies

- PCU-P-1.1 Continue to maintain existing facilities.
- PCU-P-5.1 Continue to maintain and upgrade when feasible existing educational facilities so there are a wide range of facilities and activities for the community within school properties.
- PCU-P-6.1 Continue to work with the Martinez Unified School District and the Mount Diablo School District to assist in obtaining funds from state and federal sources to improve school facilities and performance.

Implementation Measures

- PCU-I-5.1b Consider new methods to fund joint public facilities and improve as needed.

Growth Management Element

Policies

- GM-P-6.2 Adopt and maintain in place a development mitigation program to ensure new growth is paying its share of the costs associated with that growth.

Impact 4.13-4: General Plan implementation could result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services including: Other public facilities (Less than Significant)

As stated, development accommodated under the General Plan would result in additional residents and businesses in the City, including new residential, commercial, office, and industrial uses. An

increase in residents and businesses would increase the demand for public services, including library services. The City of Martinez is served by the Contra Costa County Library District.

Future development projected in the General Plan Update may result in the need for additional Contra Costa County Library resources (i.e., additional staffing, equipment, expanded/new facilities). At this time, it is unknown whether the County library would need to expand or construct new facilities to meet the demand of future development in the Study Area. Future development is assumed to occur over time through 2035; thus, any increase in demand for library services would occur gradually as additional development and associated population growth is added to the City. The County's library system would continue receiving support for library facilities and resources through the General Plan Update policies and actions. The General Plan Update includes a range of goals, policies, and implementation measures to ensure that public services are provided in a timely fashion, are adequately funded, are coordinated between the City and appropriate service agencies, and that new development funds its fair share of services. The General Plan includes policies to ensure that library and other governmental services are adequately planned and provided. The Parks and Community Facilities Element contains Policy PCU-P-6.2 which explains that the City will continue to support library facilities within the City of Martinez by ensuring access to library services and working with the Contra Costa County Library District.

The environmental effect of providing library services is associated with the physical impacts of providing new and expanded facilities. The specific impacts of providing new and expanded facilities cannot be determined at this time, as the General Plan Update does not propose or authorize development nor does it designate specific sites for new or expanded public facilities. It is noted that the Martinez Library was renovated in 2011 and is therefore not expected to require major infrastructural improvements in the near future. Existing facilities, including the Martinez Library, may be expanded at their current location, and new facilities may also be constructed. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan Update. These impacts are described in the relevant sections (Sections 4.1 through 4.16) of this Draft EIR. In addition, Chapter 22.55 of the City's Municipal Code requires development impact fees be paid as a condition of approval for applicable development projects in order to offset the cost of public services and facilities, including cultural facilities and other types of government facilities, generated by the development project. Any future development under the General Plan Update would be required to comply with regulations, policies, and standards included in the General Plan Update, and would be subject to CEQA review as appropriate. Therefore, impacts related to the provision of library services are **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Land Use Element

Goals

- LU-G-1 Promote a balanced land use pattern, a mix of which enhances community character and serves the needs of existing and future residents. Encourage land use development to occur in an orderly fashion and in pace with the expansion of public facilities. Provide appropriate transitions between single family neighborhoods and higher intensity uses. Preserve open space and historic structures.
- LU-G-6 Create an environmentally just city with an equitable distribution of public facilities and services and a safe and healthy environment for all community members.

Policies

- LU-P-6.2 Consider environmental justice issues related to the equitable provision of desirable public amenities such as parks, recreational facilities, community gardens, and other uses that improve the quality of life.

Parks, Community Facilities and Utilities Element

Policies

- PCU-P-1.1 Continue to maintain existing facilities.
- PCU-P-6.2 Continue to support library facilities within the City of Martinez by ensuring access to library services and working with the Contra Costa Library District.

Growth Management Element

Policies

- GM-P-6.2 Adopt and maintain in place a development mitigation program to ensure new growth is paying its share of the costs associated with that growth.

Impact 4.13-5: General Plan implementation may result in adverse physical impacts associated with the deterioration of existing parks and recreation facilities and require the construction of new parks and recreation facilities which might have an adverse physical effect on the environment (Less than Significant)

Since the 1980s the City has established a resident to parkland ratio of five acres of park space for every 1,000 residents within a subdivision, as officiated in the Municipal Code. The City currently contains 281.02 acres of developed park space allowing Martinez residents to enjoy 7.56 acres of park space per every 1,000 residents, on a City-wide basis. In addition, Martinez residents have access to over 410 acres of open space. Growth accommodated under the General Plan Update

would include a range of uses that would increase the population of the City, and also attract additional workers and tourists to the City. The General Plan Update projects there will be an additional 2,060 residential units proposed and an additional 5,150 people are expected to be added to the population. This growth would result in increased demand for parks and recreation facilities. It is anticipated that over the life of the General Plan Update, use of regional parks, trails, and recreation facilities would increase, due to new residents as well as tourists visiting the City.

The use of neighborhood parks would also increase, but the level of increase would be less pronounced since new subdivisions and development projects would be required to provide adequate parks and open space and/or in-lieu fees to ensure that adequate parks and recreation facilities keep pace with new development and are provided to serve the development. Development under the General Plan Update would indirectly lead to the construction of new parks and recreation facilities to serve new growth. The General Plan Update supports the creation of new parks and recreation facilities, including new parks and trails, to accommodate a wide range of activities for all age groups.

As future parks and recreation projects are considered by the City, each project would be evaluated for conformance with the General Plan and other applicable regulations, including Municipal Code Chapter 21.46, which establishes a park to resident ratio, and Chapter 22.55 of the Zoning Code, which establishes development impact fees paid as a condition of approval for applicable development projects in order to offset the cost of public services and facilities, including parks. Parks and recreation projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. New parks and recreation facilities would likely be distributed throughout areas proximate to new development in and around existing neighborhoods. Neighborhood and community parks and trails would generally be accommodated in the Neighborhood Park (NP); Open Space and Recreation, Permanent (OS&R); Open Space, Parks and Recreation (OS/P&R); Parks and Recreation (PR); and Parks and Recreation, Public Permanent Open Space (PPOS) land use designations. In addition to these land use designations, the City passed Measure I, the Protected Open Space and Parks Overlay (POPO), in June of 2018. Measure I established that all lands within City limits designated for open space, park, and outdoor recreation use as of January 1, 2017 are hereby also designated as "Protected Open Space and Parks," with the exception of the areas of the Martinez marina and harbor waterfront governed by Senate Bill 1424. Further, any land later designated in the General Plan Update for open space, park, and outdoor recreation use shall also automatically be included in the Protected Open Space and Parks overlay designation "Protected Open Space and Parks O" specifically includes those lands designated in the 1973 General Plan as: Alhambra Valley Open Space (AV/ OS), Environmentally Sensitive Land (ESL), Neighborhood Park (NP), Open Space (OS), Open Space and Recreation Permanent (OS&R), Open Space 30% Slopes (OS-S), Open Space, Parks and Recreation (OS/P&R), Open Space Private (OSP), Open Space/Conservation Use Land (CUL), Parks and Recreation (P&R), and Parks and Recreation, and Permanent Open Space (PPOS).

The provision of new parks and recreation facilities would reduce the potential for adverse impacts and physical deterioration of existing parks and recreation facilities, by providing additional facilities

4.13 PUBLIC SERVICES AND RECREATION

to accommodate the demand for parks and recreation facilities. These new facilities would be provided at a pace and in locations appropriate to serve new development, as required to maintain the City adopted standard for park space acreage at five acres for every 1,000 residents. Table 4.13-8 shows the required parkland dedication to meet the City’s standard of five acres per 1,000 persons.

TABLE 4.13-8: REQUIRED PARKLAND DEDICATION

Existing Conditions				General Plan Update		
Population	Existing Parkland Acreage	Required Total Parkland Acreage	Parkland Surplus (acres)	Net Population Growth	Required Total Parkland Acreage	Proposed Parkland Acreage
37,195	281.02	185.98	+95.04	+5,150	211.73	517.61

As shown in Table 2-1 of Section 2.0, Project Description, of this Draft EIR, under the proposed General Plan Update, the Study Area would contain 517.61 acres of usable recreational space, including: 9.8 acres designated Neighborhood Park; 295.14 acres designated Open Space & Recreation, Permanent; 73.25 acres designated Open Space, Parks and Recreation; and 139.42 acres designated Parks and Recreation. Under General Plan Update buildout conditions, which anticipated a population of 42,345 persons, a total of 211.73 acres of parkland would be needed to meet the City’s standard of five acres per 1,000 persons. As indicated in Table 4.13-8, approximately 281 acres of existing parkland is available to serve both existing and General Plan Update conditions. The 517.61 acres of usable recreational space proposed under the General Plan Update would allow the City to provide more than five acres of parkland per 1,000 residents (the proposed 517.61 acres does not contain any lands in the Alhambra Valley neighborhood) on a City-wide basis.

The General Plan Update includes a range of goals, policies, and implementation measures to ensure that parks and recreation facilities are adequately provided and funded, are coordinated between the City and appropriate agencies. As discussed, Parks and Community Facilities Element Goal PCU-G-2 establishes the City’s parkland standard to acquire and develop park land using a standard of five acres per 1,000 residents. This goal is supported by various policies and implementation measures within the same Element including PCU-P-1.1 that ensures the City continues to enhance and maintain existing facilities, PCU-P-1.2 that supports the development of new park facilities and or upgrade existing facilities providing for accessibility, durability and low maintenance areas, PCU-P-1.3 which requires developers to contribute to the parks and open space system based on their proportional share of needs generated by new residents in accordance with the Quimby Act, and Policy PCU-P-1.4 which supports periodically updating the Park Impact Fee to continue to insure the City’s ability to maintain park and recreation facilities. Implementation Measure PCU-I-1.2a establishes priorities and recommends funding for specific park and recreational facilities through the Capital Improvement Program process.

Trail development is supported by the General Plan Update through Goal PCU-G-3 of the Parks and Community Facilities Element, which establishes that interconnected trail systems providing access to recreational opportunities should continue to be developed and enhanced. Policy PCU-P-3.1 of the same Element, partners with local and regional agencies to ensure trail connections are

improved within the Study Area, while ensuring funding for trail acquisition, construction and maintenance is developed. PCU-P-3.3 ensures the City locates and constructs new trails to maximize their potential use and enjoyment by residents and visitors. PCU-P-3.4 ensures that trail development is incorporated into the City's Capital Improvement Program (CIP). PCU-P-3.5 considers development on parcels which provide missing links in the trail system, and establishes that trails and connections should be incorporated into the development plan by easement or dedication of public right-of-way. PCU-P-3.6 establishes collaboration between the City and the East Bay Regional Parks District (EBRPD), Contra Costa Water District, Contra Costa County, adjacent cities, regional trail groups, and other public agencies on trail planning issues, such as trail development and linkages. Policies in the Parks and Community Facilities Element also ensures that trail construction will be according to the standards established by the California Trails.

The additional demand on existing parks and recreational facilities, particularly regional facilities, would increase the need for maintenance and improvements. These improvements could have environmental impacts, although the exact impacts cannot be determined since the potential improvements are unknown. However, as future development of parks and recreational facilities are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Subsequent park development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

This Draft EIR addresses the potential impacts of development that may occur under the General Plan Update, including residential, commercial, office, industrial, public facilities (including parks), and a range of other uses that are accommodated by the General Plan Update. The policies identified in the proposed General Plan Update, compliance with the Quimby Act, and the City of Martinez Development Fee Program, would reduce the potential for implementation of the proposed project to result in increased impacts to public recreational facilities including parks, and the provision of recreational services. Future development would be required to be consistent with the proposed General Plan Update, the proposed General Plan Land Use Map, and State requirements. The implementation of the General Plan Update is intended to ensure that development in the Martinez Study Area protects park and recreational facilities through a continued effort to supply adequate, high-quality facilities throughout the Study Area. Implementation of the General Plan Update would have a **less than significant** impact to parks and recreational facilities; see Sections 4.1 through 4.13 and 4.15 for discussion of specific environmental impacts, including but not limited to aesthetics, air quality, noise, and traffic, that would occur with development under the General Plan Update, including development of new and expanded public services facilities as accommodated by the Land Use Map, associated with the environmental effects of new or expanded parks and recreation facilities.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Land Use Element

4.13 PUBLIC SERVICES AND RECREATION

Goals

- LU-G-6 Create an environmentally just city with an equitable distribution of public facilities and services and a safe and healthy environment for all community members.

Policies

- LU-P-6.2 Consider environmental justice issues related to the equitable provision of desirable public amenities such as parks, recreational facilities, community gardens, and other uses that improve the quality of life.

Parks, Community Facilities and Utilities Element

Policies

- PCU-P-1.1 Continue to maintain existing facilities.
- PCU-P-1.2 Develop new park facilities and/ or upgrade existing facilities providing that provide accessibility, durability, and low maintenance.
- PCU-P-1.3 Require developers to contribute to the parks and open space system based on their proportional share of needs generated by new residents in accordance with the Quimby Act.
- PCU-P-1.4 Periodically update Park Impact fees to continue to insure ensure the City's ability to maintain park and recreation facilities.
- PCU-P- 2.1 Develop civic parks, plazas and squares that provide urban park spaces and community gathering places as funding permits.
- PCU-P-2.2 As development occurs citywide, develop linear parks and green spaces that create alternative routes for walking. Where possible reuse abandoned or underutilized transportation corridors for pedestrian walking and hiking.
- PCU-P-3.1 Partner with local and regional agencies to improve trail connections within and beyond the City limits and coordinate funding for trail acquisition, construction and maintenance, whenever feasible
- PCU-P-3.2 Improve trail utilization and experience through installation of wayfinding signage to locate trails, and educational signage along trails regarding biological resources.
- PCU-P-3.3 Locate and construct new trails where access is easy to maximize their potential use and enjoyment by residents and visitors. Consider locating new trails within unused street rights-of-way (such as the Panoramic Drive "paper street" between Green Street and Thomas Drive).
- PCU-P-3.4 Incorporate trail development in the City's Capital Improvement Program.
- PCU-P-3.5 When considering development on parcels providing missing links in the planned trail system, rails and connections should be incorporated into the development plan with a possible easement or dedication of public right-of-way when possible.

- PCU-P-3.6 Work with the East Bay Regional Parks District (EBRPD), Contra Costa Water District, Contra Costa County, adjacent cities, regional trail groups, and other public agencies on trail planning issues, including trail development and linkages, and promotion of connections to the San Francisco Bay Water Trail
- PCU-P-3.7 Construct trails according to the standards established by the California Trails Manual and EBRPD standards.
- PCU-P-3.8 Locate new trails, and promote existing trails, with an emphasis on scenic qualities, accessibility for persons with disabilities, and making connections with local and regional open space areas, parks, points of interest and community facilities.
- PCU-P-3.9 When appropriate, encourage the public purchase of private lands for the preservation of open space ridge lines.
- PCU-P-3.10 Require future development within or upon ridgelines provide access to and from or through the development via public trails through appropriate conditions of approval.
- PCU-P-3.11 Prepare and adopt a Trails Master Plan that inventories and maps existing, planned and proposed trails and connections, identifies potential funding sources, and prioritizes trail segments for future development.
- PCU-P-3.12 Provide hiking trail maps at City facilities and on the City's website and publicize online interactive maps and mobile applications when available.
- PCU-P-4.1 Continue to provide, reimagine, innovate, and expand an array of recreational programs to the public.

Implementation Measures

- PCU-I-1.2a Establish priorities and recommend funding for specific park and recreational facilities through the Capital Improvement Program (CIP) process. Funding information for these improvements shall include estimates for ongoing maintenance costs.
- PCU-I-2.1a Pursue opportunities for acquisition of underutilized or abandoned properties for development into linear parks, civic squares, providing opportunities to create additional park land.
- PCU-I-3.1a Establish priorities for funding for specific park or trailhead land through the Capital Improvement Program process.
- PCU-I-3.1b Consider purchasing land or accepting land dedication suitable for future trail development and recreational uses as land becomes available.
- PCU-I-4.1a Offer high quality recreational programs that cover costs through user fees.

4.13.4 CUMULATIVE IMPACTS

Future development accommodated through implementation of the General Plan Update would result in additional demands on existing public services, as well as parks and recreation facilities. As the demand for public services and recreation increases throughout the 2035 buildout, there will likely be a need to address acceptable service ratios, response times, and other performance standards. New or expanded service structures (e.g., offices, maintenance and administrative buildings, schools, parks, fire facilities, libraries, etc.) may be needed to provide for adequate staffing, equipment, and appropriate facilities to serve growth within the cumulative analysis area.

The proposed General Plan Update includes policies and actions to ensure that public services are provided at acceptable levels and to ensure that development and growth does not outpace the provision of public services. With adherence to and compliance with the General Plan Update policies and actions, in addition to adherence to local and environmental regulations, the impact to public services and recreational facilities is considered less than significant. The significance of impacts to public services and recreational facilities resulting from specific future development would be evaluated on a project-by-project basis. If future project-level impacts are identified, specific mitigation measures may be required by CEQA. As a result, the General Plan Update's incremental contribution to adverse physical impacts to the environment as a result of newly constructed public service and recreational facilities would be **less than cumulatively considerable**.

4.13.5 SIGNIFICANT AND UNAVOIDABLE IMPACTS

Public Services impacts associated with the implementation of the General Plan Update would be **less than significant**; no significant unavoidable public service impacts would occur as a result of the General Plan Update.

Park and recreational facility impacts associated with implementation of the General Plan Update would be **less than significant**; no significant unavoidable impacts to parks and recreation facilities would occur as a result of the General Plan Update.

4.13.6 REFERENCES

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4.13 PUBLIC SERVICES AND RECREATION

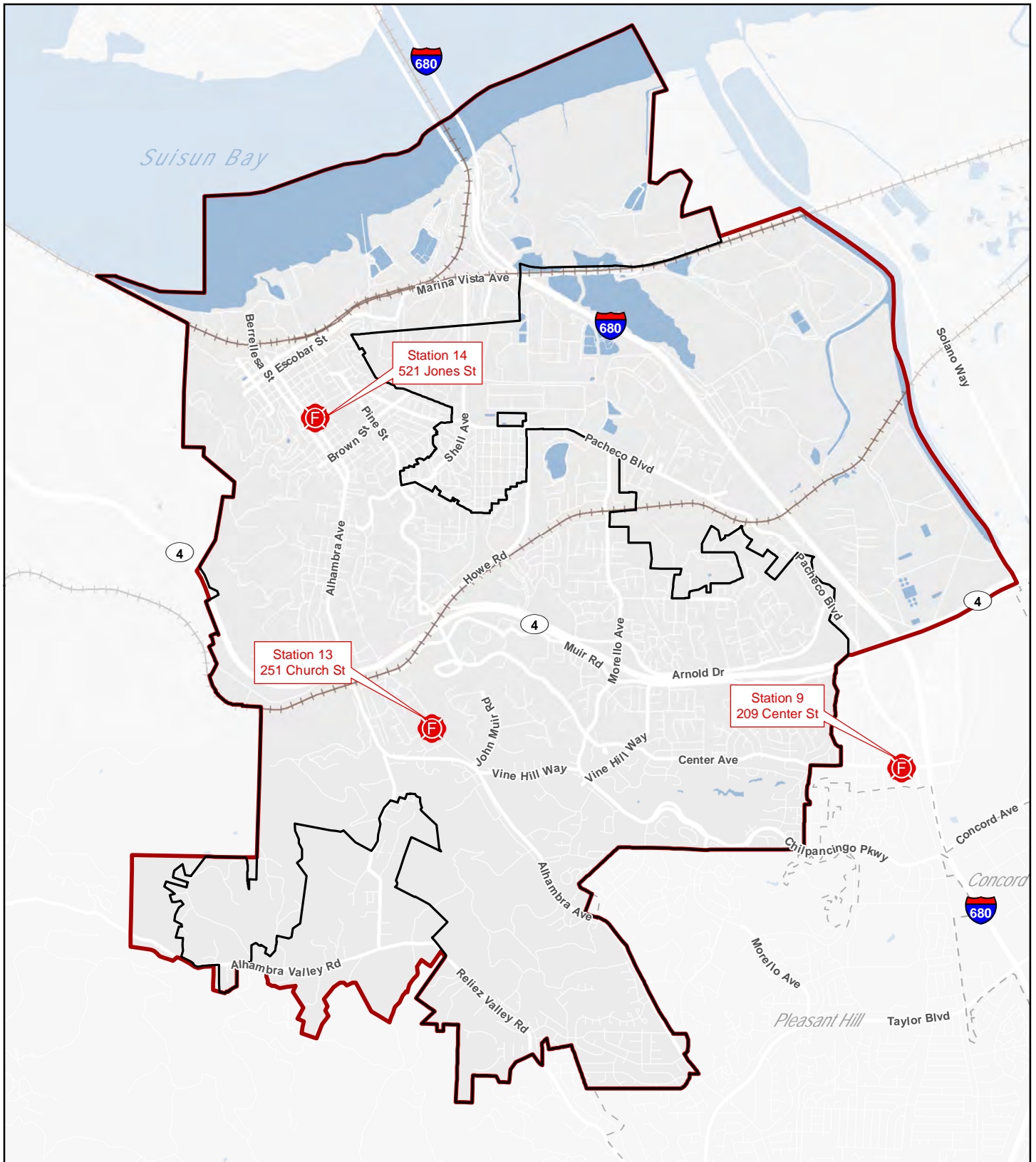
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



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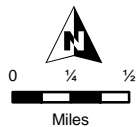
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LEGEND

-  Martinez City Limits
-  Martinez Sphere of Influence
-  Other Incorporated Areas
-  Contra Costa County Fire Protection District Fire Station

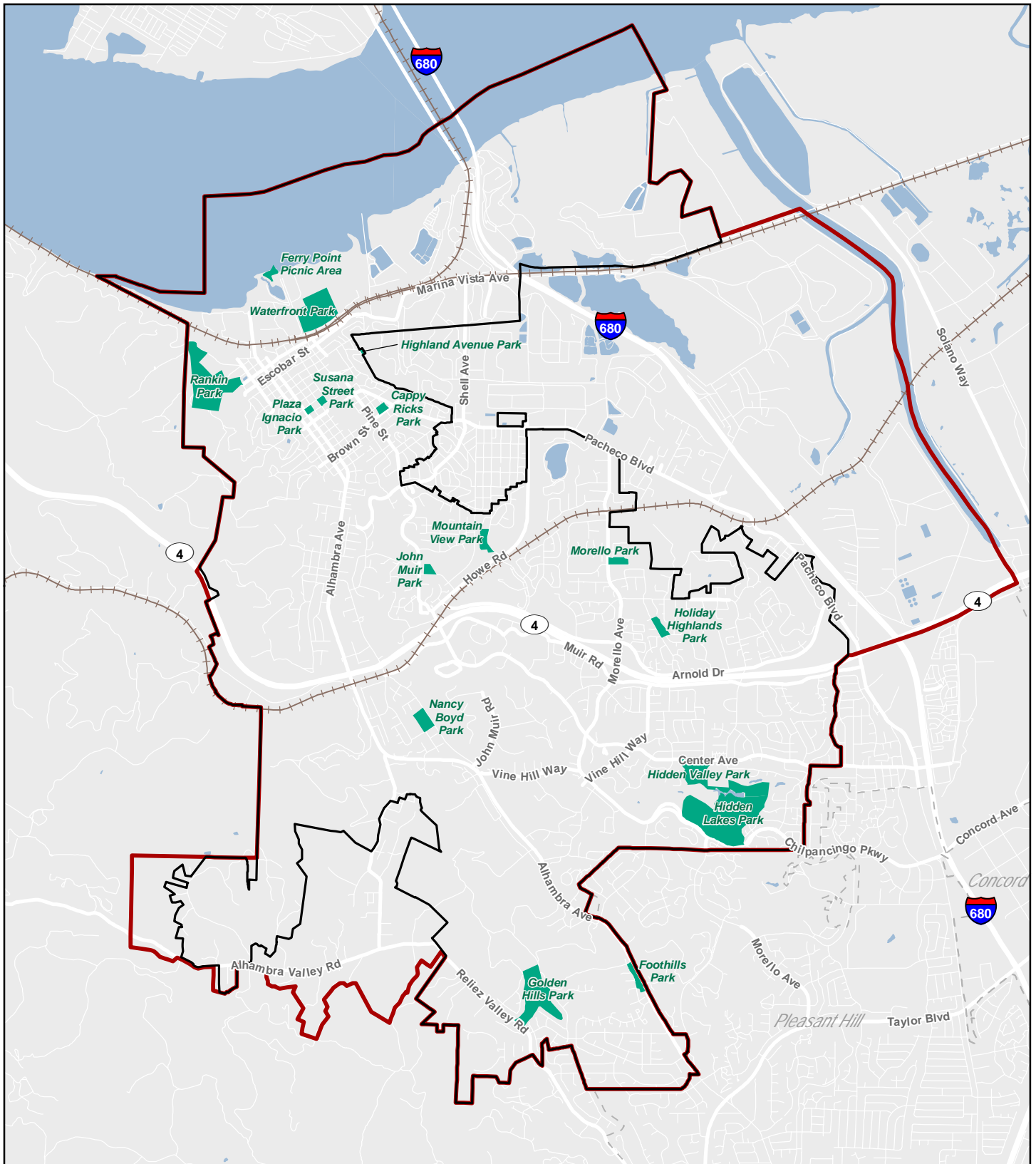


CITY OF MARTINEZ

Figure 4.13-1. Fire Station Locations

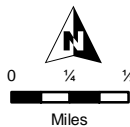
Sources: Contra Costa County Fire Protection District; California State Geportal; Contra Costa County GIS. Map date: May 25 2022.

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LEGEND

- Martinez City Limits
- Martinez Sphere of Influence
- Other Incorporated Areas
- City Park



CITY OF MARTINEZ

Figure 4.13-2. Parks

Sources: City of Martinez; California; State Geoportal; Contra Costa County GIS. Map date: May 25 2022.

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This section describes the existing physical and operational conditions for the transportation system and provides an analysis of potential impacts to the transportation system associated with adoption and implementation of the General Plan Update. The impact analysis examines the roadway, transit, bicycle, and pedestrian components of the City's transportation system. The technical analysis of this section was prepared by Kittelson & Associates, Inc., with prior material prepared by Omni-Means (GHD). All figures referenced are located at the end of the chapter.

Under SB 743 as of July 1, 2020, local agencies may no longer rely on roadway/intersection delay and capacity-based analyses for CEQA purposes, but rather, agencies must analyze transportation impacts utilizing vehicle miles travelled ("VMT"), which measures the number of vehicle trips generated by a project and the average distance of travel to and from the project. These are calculated and assessed on a per rate basis – per capita for residential projects or per employee for employment-generating projects. This is a change from the prior method of analyzing transportation impacts, which measured levels of service ("LOS") at intersections and roadway segments, graded from LOS A to LOS F. Travel delay as measured by LOS is no longer a CEQA-related topic and is not discussed in this EIR.

Comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic. Comments addressed travel demand analysis, transportation impact fees, equitable access, and impacts of traffic on train crossings. Comments related to this topic are addressed within this section. Full comments received are included in Appendix A.

4.14.1 ENVIRONMENTAL SETTING

EXISTING ROADWAY NETWORK

The roadway system in Martinez consists of multiple facility types that serve local and regional traffic demand. The vehicular facilities in Martinez are discussed below. The General Plan Update Circulation Plan is shown in Figure 2-3 in Section 2.0, Project Description. This section describes the physical characteristics of Martinez's roadway network.

Federal Highways

One federal highway operated and maintained by Caltrans passes through Martinez:

Interstate 680 (I-680) is a north-south interstate freeway connecting the City of San Jose to I-80 in Solano County through Milpitas, Dublin, Walnut Creek, and Fairfield. I-680 is fully grade separated with at least four total lanes per direction through Martinez. In the northbound direction, the leftmost lane is a high-occupancy vehicle (HOV) lane to north of the Arthur Road on-ramp. In the southbound direction, the leftmost lane is an express (high-occupancy and toll) lane starting south of the Marina Vista Avenue on-ramp.

State Highways

One state highway operated and maintained by Caltrans passes through Martinez:

State Route 4 (SR 4) is an east-west State Highway running through Martinez that connects I-80 in Hercules west of Martinez with Pittsburg and Antioch in east Contra Costa County, continuing east to Stockton and to Calaveras and Alpine Counties. Within Martinez, SR 4 is a grade-separated freeway. There are three lanes in each direction in most sections, except for two eastbound lanes west of Alhambra Avenue and east of Glacier Drive.

Principal Arterial Streets

Principal arterial facilities serve to connect areas of major activity within the urban area and function primarily to distribute cross-town traffic between freeways/highways, to collector streets, and to and from adjacent jurisdictions. Within Martinez, principal arterial streets are mostly four-lane facilities, with maximum operating speeds ranging from 30 to 45 miles per hour (mph). The following streets are designated as principal arterial streets in the General Plan Update circulation system:

- Alhambra Avenue (north of SR 4)
- Berrellesa Street
- Escobar Street (east of Berrellesa Street)
- Marina Vista Avenue

Minor Arterial Streets

Minor arterial streets serve a similar purpose to principal arterial streets, except carrying less traffic volume, and are usually two-lane facilities. The following streets are designated as minor arterial streets in the General Plan Update circulation system:

- Alhambra Avenue (south of SR 4)
- Alhambra Valley Road
- Alhambra Way (north of SR 4)
- Center Avenue
- Chilpancingo Parkway
- Court Street (north of Green Street)
- Escobar Street (Talbart Street to Berrellesa Street)
- Franklin Canyon Road
- Muir Road
- Pacheco Boulevard
- Pine Street
- Pleasant Hill Road East
- Shell Avenue
- Talbart Street (north of Escobar Street)

Collector Streets

Collector streets function as connector routes between local and arterial streets and provide access to residential, commercial, and industrial property. Collector streets in Martinez typically have two

through lanes. The following streets are designated as collector streets in the General Plan Update circulation system.

- Arnold Drive
- Howe Road
- Morello Avenue
- Reliez Valley Road
- Vine Hill Way
- Green Street, Susana Street, and Brown Street

Local Streets

Local streets provide direct access to abutting properties and allow for localized movement of traffic. Local streets are characterized by low daily traffic volumes and low operating speeds of 25 to 30 mph. All roadways not identified in the General Plan Update as freeways, highways, arterials, or collectors are designated as local streets.

TRANSIT SERVICE

Transit service in Martinez includes regional rail transit and local bus service is shown on Figure 4.14-1.

Rail Transit

Regional rail transit in Martinez is provided by the Capitol Corridor, Amtrak, and Bay Area Rapid Transit (BART). Capitol Corridor trains are operated by the Capitol Corridor Joint Powers Authority and operate between San Jose and Sacramento with limited service to Auburn and Colfax. All Capitol Corridor trains stop at the Martinez Amtrak station in Downtown Martinez. The Capitol Corridor operates 11 trains in each direction on weekdays and nine trains in each direction on weekends.

Amtrak operates several regional and long-distance trains which stop at the Martinez Amtrak station. The San Joaquin service operates five trains daily in each direction between Oakland and Bakersfield. The California Zephyr operates one train in each direction daily between Emeryville, CA and Chicago, IL. The Coast Starlight operates one train in each direction daily between Los Angeles, CA and Seattle, WA. Amtrak also operates Thruway connecting bus service between northern California locations and the Martinez Amtrak Station. The Thruway routes serve Vallejo and Napa three times a day, extending to Santa Rosa on two of those runs, and twice-daily service to Mendocino and Humboldt counties.

The Bay Area Rapid Transit District (BART) is a heavy-rail public transit system that connects the San Francisco Peninsula with communities in the East Bay and South Bay. There are no BART stations within the Martinez Sphere of Influence. The North Concord/Martinez, Concord and Pleasant Hill BART stations are all about seven to eight miles from the center of Martinez. Access to BART is provided by local bus services as described in the following section.

Bus Transit

Local bus service in Martinez is provided by County Connection. WestCAT and Tri-Delta Transit also operate connecting services to other parts of Contra Costa County.

COUNTY CONNECTION BUS ROUTES

County Connection operates two express bus routes and four local bus routes in Martinez.

Route 98X is an express route that connects the Martinez Amtrak Station with Sun Valley Mall in Concord and the Walnut Creek BART station. Route 98X operates weekdays between 5:30 AM and 7:30 PM at approximately 40 minute headways.

Route 99X is an express route that connects the Martinez Amtrak Station with the North Concord/Martinez BART station. Route 99X operates weekdays between 6:00 and 9:00 AM and between 3:00 and 5:30 PM at approximately 30 minute headways.

Route 16 is a local route that serves downtown Martinez, Alhambra Avenue, central Pleasant Hill and the Concord BART Station. Route 16 operates Monday through Friday with service between 6:00 AM and 10:00 PM with approximately 40 minute headways.

Route 18 is a local route that connects downtown Martinez, Pacheco Boulevard, and Morello Avenue with Diablo Valley College and the Pleasant Hill BART Station. Route 18 operates weekday service between 6:00 AM and 9:30 PM with approximately 80 minute headways.

Route 19 is a local route that connects downtown Martinez with the Concord BART station via Pacheco Boulevard. Route 19 operates weekday service from 7:00 AM to 7:30 PM with approximately 90 minute headways.

Route 28 is a local route that connects downtown and medical facilities in Martinez with Diablo Valley College and the Concord BART Station via Muir Road. Route 28 operates weekday service between 6:45 AM and 6:30 PM with 60 minute headways.

WESTCAT BUS ROUTES

WestCAT provides regularly-scheduled fixed-route service primarily in western Contra Costa County. One WestCAT route provides service to the City of Martinez:

Route 30Z connects downtown and the VA Hospital in Martinez with the Hercules Transit Center via State Route 4. Route 30Z operates on weekdays between 6:00 AM and 7:00 PM at approximately 60 minute frequencies during peak periods and 90 minutes off-peak.

TRI DELTA TRANSIT BUS ROUTES

Tri Delta Transit provides regularly-scheduled fixed-route service primarily in eastern Contra Costa County. One Tri Delta route provides service to the City of Martinez:

Route 200 connects downtown and medical centers in Martinez with the Pittsburg/Bay Point BART station via State Route 4. Route 200 operates on weekdays between 6:30 AM and 5:00 PM at approximately 60 minute frequencies.

Paratransit

County Connection LINK operates shared-ride service for people who are unable to use regular buses and trains due to a disability or disabling health condition. LINK serves locations within 1.5 miles of a County Connection fixed route bus or within 0.75-of a mile of a BART station when County Connection fixed route buses are not in operation.

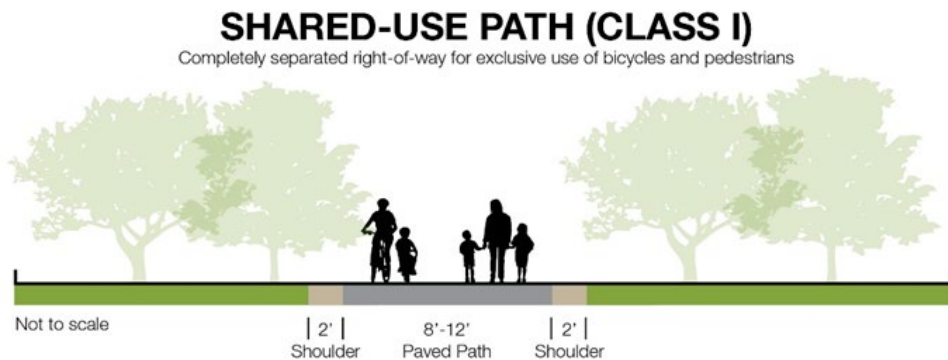
On-Demand Transportation Services

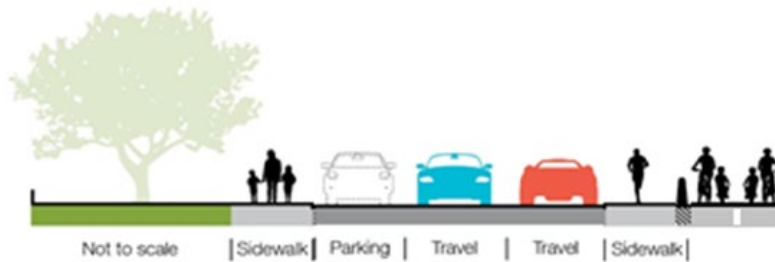
Taxi service in Martinez is provided by private operators that serve the greater Contra Costa County area and beyond. Taxi service is available 24 hours a day, seven days a week by calling in a service request. Other ride-hailing applications are also available in Martinez and provide transportation throughout the Bay Area.

BICYCLE FACILITIES

Bicycle circulation in Martinez is supported by an existing network of multi-use paths, on-street bike lanes, and bicycle routes. Figure 4.14-2 displays the existing and proposed designated bicycle facilities in the City. Bicycle facilities are categorized into four types, as described and depicted in illustrations below. Note that while the graphics include typical widths for the various facilities, the exact configuration of a bike facility can vary depending on its location and the jurisdiction’s preferences.

- **Class I Multi-Use Path.** Also known as a shared path or bike path, a multi-use path is a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.

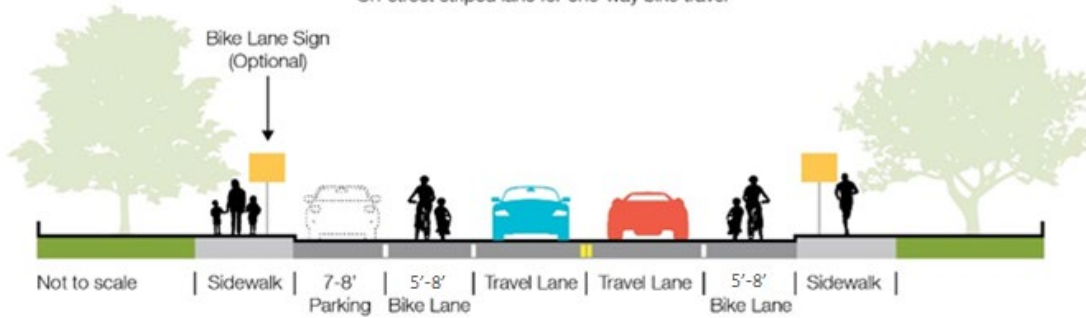




- Class II Bike Lane.** A striped and signed lane for one-way bike travel on a street or highway. Additionally, Class II Bike Lanes are occasionally designed to include a spatial buffer between motorists and cyclists. As such, buffered Class II Bike Lanes include striping to provide additional separation between the two travel modes.

BICYCLE LANE (CLASS II)

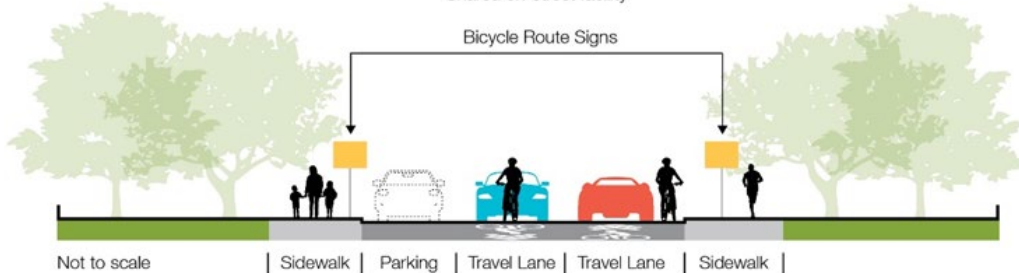
On-street striped lane for one-way bike travel



- Class III Bike Route.** A signed route along a street where the bicyclist shares the right-of-way with motor vehicles. This facility can also be designed using a shared lane marking (sharrow).

BICYCLE ROUTE (CLASS III)

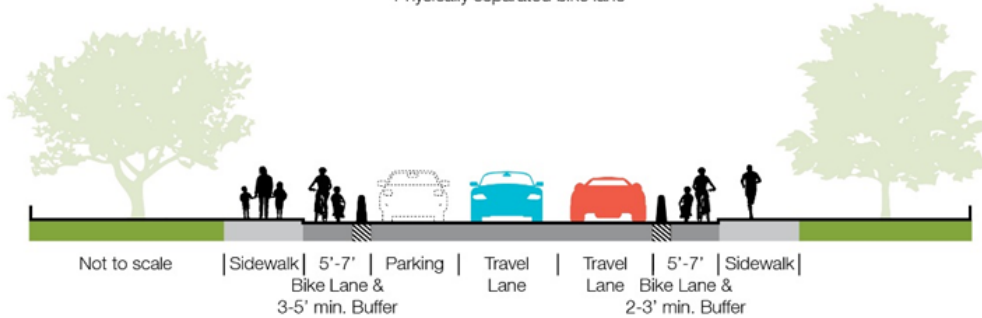
Shared on-street facility



- **Class IV Bikeway (Cycle Track).** Also known as a separated bikeway, is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

CYCLE TRACK/SEPARATED BIKEWAY (CLASS IV)

Physically separated bike lane



The City of Martinez currently provides Class I, II or III Bikeways. There is no established Class IV Bikeways. As shown in Figure 4.14-2, existing bicycle facilities in Martinez include:

CLASS I MULTI-USE PATHS

- Benicia-Martinez Bike path (Marina Vista Avenue to Park Road)
- Contra Costa Canal Trail (Muir Road to Chilpancingo Parkway [Martinez only])
- Ferry Street (north of Marina Vista Avenue)
- North Court Street

CLASS II BIKE LANES

- Alhambra Avenue (Marina Vista Avenue to Haven and Berrellesa Street to Paso Nogal Road)
- Arnold Drive (Howe Road to Glacier Drive)
- Berrellesa Street (Marina Vista Avenue to Alhambra Avenue)
- Center Avenue (Howe Road to Hidden Lakes Drive)
- Chilpancingo Parkway (Morello Boulevard to Glen Circle)
- Elderwood Drive (Alhambra Avenue to Skyview Drive)
- Escobar (Court Street to Marina Vista Avenue)
- Glacier Drive (Muir Road to Eagle Lake Court)
- Marina Vista Avenue (I-680 to Escobar)
- Morello Avenue (Pacheco Boulevard to Chilpancingo Parkway)
- Muir Road (Center Avenue to Pacheco Boulevard)
- Pacheco Boulevard (Jones Street to Morello Boulevard)

CLASS III BIKE ROUTES

- Alhambra Avenue (Haven to Berrellesa Street)

4.14 TRANSPORTATION AND CIRCULATION

- Elderwood Drive (Morello Avenue to Bramblewood Lane)
- Muir Station Road (Alhambra Way to Center Avenue)
- Pacheco Boulevard (Morello Avenue to State Route 4)

PEDESTRIAN FACILITIES

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal infrastructure, curb ramps, and streetscape amenities. Most Martinez arterial and collector streets have sidewalks on both sides of the street and marked crosswalks at signalized intersections. Streets within the Downtown area are typically lined with sidewalks, which for the most part, are well maintained and have been recently updated. Crosswalks are located at high-use intersections within the Downtown, including crossings from Marina Vista Avenue to the Amtrak Station and bus depot. Local streets in residential areas may have sidewalks on both sides of the street, one side of the street, or no sidewalks in some locations.

FREIGHT/GOODS MOVEMENT

Martinez Municipal Code Chapter 10.56, *Truck Routes*, establishes the City's ability to designate truck routes within the City. Those streets and parts of streets established by ordinance are declared to be truck routes for the movement of vehicles exceeding a maximum gross weight of three tons:

- Alhambra Avenue - Marina Vista to SR 4
- Berrellesa Street - Marina Vista to Alhambra Avenue (at Bertola)
- Center/Pine Street - Howe Road to SR 4
- Escobar Street - Berrellesa Street to Marina Vista (at Miller)
- Howe Road - Pacheco Boulevard to Center/Pine Street
- Marina Vista - Berrellesa Street to east City limits
- Pacheco Boulevard - Shell Avenue to east City limits
- Shell Avenue - Marina Vista to Pacheco Boulevard

The Municipal Code allows truck drivers to use other City streets as well, as long as those streets represent a direct route to and from restricted streets when necessary for making pickups or deliveries of goods from or to a building located on such restricted streets, or for the purpose of delivering materials to be used in repair, remodeling, or construction of a building or structure for which a building permit has been obtained.

RAILROADS

Rail transportation in the City currently encompasses passenger and freight services. The Union Pacific Railroad operates the existing railroad tracks that parallel the waterfront area west of Marina Vista Avenue. These tracks make up the service corridor for all passenger movement and the majority of freight traffic traveling to Sacramento, the Central Valley, and areas along the West Coast. Burlington Northern Santa Fe (BNSF) also operates freight trains along the corridor on a reduced basis. Additionally, BNSF operates the existing railroad tracks that bisect the City about 1.5 to 2 miles south of the Union Pacific tracks.

Union Pacific operates the majority of freight traffic through the Martinez rail corridor. Currently, at-grade crossings of the Union Pacific tracks are located at Berrellesa Street and Ferry Street near the downtown waterfront area and Fairmont Road/Rococo Road to the northeast that serves industrial areas. The BNSF track, south of the Union Pacific track, has less activity and no public at-grade railroad crossings. The BNSF track is elevated through the City limits. There is a need to widen the trestles over Morello Avenue and Pacheco Boulevard to make way for multimodal and/or roadway improvements on those streets.

On a daily basis, there is an average of eight freight trains that travel through the Martinez corridor either on a regional or local basis. In addition, there are twelve switching trains per day as a result of operations at the Union Pacific switching yard west of Berrellesa Street. The freight trains vary in length and speed, but typically average approximately 5,000 feet in length and travel at speeds 20-30 mph through the corridor. Trains are active throughout the day (or night) with no clear peaking hour. The Union Pacific railroad tracks that parallel the waterfront are also used by Amtrak passenger rail, served by the Martinez Intermodal Station (located north of Marina Vista Avenue and west of Ferry Street).

Passenger and commuter rail transportation is currently provided by Amtrak in the City of Martinez. The Martinez Amtrak Station is a major regional, interregional, and interstate rail hub located in Downtown Martinez. Regional transit connections to the station are provided through multiple CCCTA County Connection routes. The following regional Amtrak routes have stops in Downtown Martinez:

- **California Zephyr** runs daily between Chicago and San Francisco, with multiple stops in the states of Illinois, Iowa, Nebraska, Colorado, Utah, Nevada and California. Service to the San Francisco and Oakland stations is provided via thruway bus service at the Emeryville station.
- **Coast Starlight** runs daily between Los Angeles and Seattle, with multiple stops along the coast of California, through Oregon and Washington.
- **San Joaquin** runs multiple times a day through the California Central Valley between the Bay Area, Sacramento, and Bakersfield.
- **Capital Corridor** runs multiple times a day between the Sacramento Valley and Bay Area. The Capital Corridor is a frequent commuter train with thruway bus service to San Francisco from Emeryville.

The trans-continental trains such as the Coast Starlight and California Zephyr make up four trains per day through the Martinez corridor. Commuter trains are contributing 32 trains per day for the Capital Corridor and 8 trains per day for the San Joaquin. During each of the AM and PM peak hours, this equates to approximately 4-5 trains passing through or stopping in the corridor (Wilber Smith Association, 2010). On a daily basis, the commuter trains operate between 5:00 AM and 11:00 PM with the majority of trains (30) operating during the daylight hours. In addition to weekday train operations, the Capital Corridor service also operates on weekends (including holidays) with 22 trains. Compared to freight trains, commuter trains are shorter in length at approximately 700 feet and have higher travel speeds ranging up to 40 mph.

AVIATION SYSTEM

The Buchanan Field airport is located in Contra Costa County, east of Martinez and west of Concord. There is no scheduled passenger service at Buchanan Field; the airport provides over 112,000 annual aircraft operations serving a variety of purposes including recreation, emergency response, law enforcement, and charter flights (Contra County, 2022). Scheduled passenger service for Martinez residents and visitors is available at other airports in the region including Oakland International Airport (35 miles) and San Francisco International Airport (45 miles).

4.14.2 REGULATORY SETTING

The City of Martinez General Plan and a variety of Federal, State, regional, and local plans, legislation, and policy directives provide guidelines for the safe operation of streets and transportation facilities in Martinez. While the City of Martinez has primary responsibility for the maintenance and operation of local transportation facilities in its jurisdiction, the City works on a continual basis with responsible Federal, State, and regional agencies, including the Federal Highway Administration (FHWA), the California Department of Transportation (Caltrans), the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG), Contra Costa Transportation Authority (CCTA), as well as others, to maintain, improve, and balance the competing transportation needs of the community.

FEDERAL

Federal Highway Administration

The FHWA is a federal agency that focuses on national highway programs. FHWA administers and manages federal highway programs and establishes national standards. The FHWA publishes the Manual on Uniform Traffic Control Devices (MUTCD) which specifies the standards for street markings, traffic signals, and street signs in the United States. Caltrans developed the California MUTCD based on the FHWA MUTCD.

Americans With Disabilities Act

The Americans with Disabilities Act (ADA) of 1990 provides comprehensive rights and protections to individuals with disabilities. The goal of the ADA is to assure equality of opportunity, full participation, independent living, and economic self-sufficiency. To implement this goal, the United States Access Board has created accessibility guidelines for public rights-of-way. The guidelines address various issues, including roadway design practices, slope and terrain issues, pedestrian access to streets, sidewalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way.

The City of Martinez is committed to ensure that people with disabilities have access to City programs, services, activities, and facilities. In all of its services, programs, events, activities, facilities, and public meetings, the City strives to eliminate any barriers that prohibit people with disabilities from full access to facilities.

STATE

California Department of Transportation

The California Department of Transportation (Caltrans) is the primary State agency responsible for transportation issues. One of its duties is the construction and maintenance of the State highway system. Caltrans has established standards for roadway traffic flow and developed procedures to determine if State-controlled facilities require improvements. For projects that may physically affect facilities or require access to a state highway, Caltrans requires encroachment permits before such activity may be undertaken. For projects that would not physically affect facilities but may influence traffic flow and levels of services at such facilities, Caltrans may recommend measures to mitigate the traffic impacts of such projects.

Additionally, the following Caltrans procedures and directives are relevant to transportation improvements in Martinez:

- Caltrans updated its transportation analysis guidelines to reflect a statewide shift from LOS to VMT. Caltrans has provided guidance in three recent publications: Vehicle Miles Traveled-Focused Transportation Impact Study Guide (May 2020), Transportation Analysis Under CEQA: Evaluating Transportation Impacts of State Highway System Projects (September 2020), and Transportation Analysis Framework: Evaluating Transportation Impacts of State Highway System Projects (September 2020).
- Traffic Safety Bulletin 20-02-R1 (Interim Local Development Intergovernmental Review Safety Review Practitioners Guide) provides instructions to Caltrans staff, lead agencies, developers, and consultants conducting safety reviews for proposed land use projects and plans affecting the state highway system. This guidance establishes the safety impact review expectations for Caltrans and lead agencies to comply with CEQA. This guidance is part of the shift away from using LOS or other similar metrics to assess transportation impacts.
- The Caltrans Project Development Procedures Manual outlines pertinent statutory requirements, planning policies, and implementing procedures regarding transportation facilities. It is continually and incrementally updated to reflect changes in policy and procedures. For example, the most recent revision incorporates the Complete Streets policy from Deputy Directive 64-R1, which is detailed below.
 - Caltrans Deputy Directive 64 (2001) requires Caltrans to consider the needs of non-motorized travelers, including pedestrians, bicyclists, and persons with disabilities, in all programming, planning, maintenance, construction, operations, and project development activities and products. This includes incorporation of the best available standards in all of the Department’s practices.
 - Caltrans Deputy Directive 64-R1 (2014) requires Caltrans to provide for the needs of travelers of all ages and abilities in all planning, programming, design, construction, operations, and maintenance activities and products on the state highway system. Caltrans supports bicycle, pedestrian, and transit travel with a focus on “complete streets” that begins early in system planning and continues through project construction and maintenance and operations.

- Caltrans Director's Policy 22 (2001) establishes support for balancing transportation needs with community goals. Caltrans seeks to involve and integrate community goals in the planning, design, construction, and maintenance and operations processes, including accommodating the needs of bicyclists and pedestrians.
- Caltrans, as a responsible agency under CEQA, is available for early consultation on a project to provide guidance on applicable transportation analysis methodologies or other transportation related issues and is responsible for reviewing the traffic impact study for errors and omissions pertaining to the state highway facilities.

Governor's Office of Planning and Research General Plan Guidelines

The Governor's Office of Planning and Research (OPR) publishes General Plan Guidelines as a "how to" for cities and counties developing their general plans. OPR released its updated guidelines in 2017, which includes legislative changes, new guidance, policy recommendations, external links to resource documents, and additional resources. For each general plan element, the guidelines discuss statutory requirements in detail, provide recommended policy language, and include examples of city and county general plans that have adopted similar policies.

Climate Protection Legislation – Assembly Bill 32, Senate Bill 32 and Senate Bill 375

On December 11, 2008, CARB adopted its *Climate Change Scoping Plan* (Scoping Plan), which functions as a roadmap of CARB's plans to achieve GHG reductions in California required by Assembly Bill (AB) 32 through subsequently enacted regulations. The Scoping Plan contains the main strategies California will implement to reduce carbon dioxide-equivalent (CO₂e) emissions by 169 million metric tons (MMT), or approximately 30 percent, from the State's projected 2020 emissions level of 596 MMT of CO₂e under a business-as-usual scenario. (This is a reduction of 42 MMT CO₂e, or almost 10 percent, from 2002–2004 average emissions, but requires the reductions in the face of population and economic growth through 2020.) The Scoping Plan also breaks down the amount of GHG emissions reductions CARB recommends for each emissions sector of the State's GHG inventory. The Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards:

- improved emissions standards for light-duty vehicles (estimated reductions of 31.7 MMT CO₂e);
- the Low-Carbon Fuel Standard (15.0 MMT CO₂e);
- energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO₂e); and
- a renewable portfolio standard for electricity production (21.3 MMT CO₂e).

CARB updated the Scoping Plan in 2013 (*First Update to the Scoping Plan*) and again in 2017 (the *Final Scoping Plan*). The 2013 Update built upon the initial Scoping Plan with new strategies and recommendations, and also set the groundwork to reach the long-term goals set forth by the State. Successful implementation of existing programs (as identified in previous iterations of the Scoping Plan) allowed California to meet the 2020 target. The 2017 Update expands the scope of the plan

further by focusing on the strategy for achieving the State’s 2030 GHG target of 40 percent emissions reductions below 1990 levels (to achieve the target codified into law by SB 32), and substantially advances toward the State’s 2050 climate goal to reduce GHG emissions by 80 percent below 1990 levels.

The 2017 Update relies on the preexisting programs paired with an extended, more stringent Cap-and-Trade Program, to deliver climate, air quality, and other benefits. The 2017 Update identifies new technologically feasible and cost-effective strategies to ensure that California meets its GHG reduction goals.

CARB released the Draft 2022 Climate Change Scoping Plan for public review in May 2022 and anticipates adoption of the document by the end of 2022. The 2022 Scoping Plan Update assesses progress toward the statutory 2030 target, while laying out a path to achieving carbon neutrality no later than 2045.

SB 375 provides guidance for curbing emissions from cars and light trucks to help California comply with AB 32. There are five major components to SB 375:

- CARB will guide the adoption of GHG emission targets to be met by each Metropolitan Planning Organization (MPO) in the State.
- MPOs are required to create a Sustainable Communities Strategy (SCS) that provides a plan for meeting these regional targets. The SCS must be consistent with the Regional Transportation Plan (RTP).
- Regional housing elements and transportation plans must be synchronized on eight-year schedules. Also, the SCS and Regional Housing Needs Assessment (RHNA) must be consistent with each other.
- CEQA is streamlined for preferred development types such as mixed-use projects and transit-oriented developments (TODs) if they meet specific requirements.
- MPOs must use transportation and air emission modeling methodologies consistent with California Transportation Commission (CTC) guidelines.

California Complete Streets Act (AB 1358)

Originally passed in 2008, California’s Complete Streets Act took effect in 2011 and requires local jurisdictions to plan for land use transportation policies that reflect a “complete streets” approach to mobility. “Complete streets” comprises a suite of policies and street design guidelines which provide for the needs of all road users, including pedestrians, bicyclists, transit operators and riders, children, the elderly, and the disabled. From 2011 onward, any local jurisdiction—county or city—that undertakes a substantive update of the circulation element of its general plan must consider “complete streets” and incorporate corresponding policies and programs. In 2010, OPR released guidelines for compliance with this legislation which provide direction on how circulation elements can best plan for a variety of travel modes such as transit, walking, bicycling, and freight.

Senate Bill 743

On September 27, 2013, SB 743 was signed into law.¹ The Legislature found that with the adoption of the Sustainable Communities and Climate Protection Act of 2008 (SB 375), the State had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce vehicle miles traveled (VMT) and thereby contribute to the reduction of GHG, as required by the California Global Warming Solutions Act of 2006 (AB 32). Additionally, the Complete Streets Act (AB 1358), requires local governments to plan for a balanced, multimodal transportation network that meets the needs of all users. To further the State’s commitment to the goals of SB 375, AB 32 and AB 1358, SB 743 adds Chapter 2.7, Modernization of Transportation Analysis for Transit-Oriented Infill Projects, to Division 13 (Section 21099) of the Public Resources Code.

SB 743 started a process that fundamentally changed transportation impact analysis as part of CEQA compliance. These changes include the elimination of auto delay, LOS, and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts in California. Further, parking impacts are not to be considered significant impacts on the environment for select development projects within infill areas with nearby frequent transit service. SB 743 includes amendments that revises the definition of “in-fill opportunity zones” to allow cities and counties to opt out of traditional LOS standards established by congestion management programs (CMPs) and requires OPR to update the CEQA Guidelines and establish “criteria for determining the significance of transportation impacts of projects within transit priority areas.”² As part of the new CEQA Guidelines, the new criteria “shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” SB 743-compliant CEQA analysis became mandatory on July 1, 2020.

In December 2018, OPR released a final advisory to guide lead agencies in implementing SB 743, *Technical Advisory on Evaluating Transportation Impacts in CEQA*. This advisory became effective as of July 1, 2020. Key guidance includes:

- VMT is the most appropriate metric to evaluate a project’s transportation impact.
- OPR recommends tour- and trip-based travel models to estimate VMT, but ultimately defers to local agencies to determine the appropriate tools.
- OPR recommends measuring VMT for residential and office projects on a “per rate” basis. Specifically, OPR recommends VMT per capita for residential projects and VMT per employee for office projects.

¹ An act to amend Sections 65088.1 and 65088.4 of the Government Code, and to amend Sections 21181, 21183, 21186, 21187, 21189.1, and 21189.3 of, to add Section 21155.4 to, to add Chapter 2.7 (commencing with Section 21099) to Division 13 of, to add and repeal Section 21168.6.6 of, and to repeal and add Section 21185 of, the Public Resources Code, relating to environmental quality.

² A “transit priority area” is defined in as an area within one-half mile of an existing or planned major transit stop. A “major transit stop” is defined in Public Resources Code Section 21064.3 as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

- OPR's recommended impact threshold for residential and office projects is VMT per capita that is 15 percent below the city or regional average (whichever is applied) or per employee that is 15 percent below the regional average. In other words, an office project that generates VMT per employee that is more than 85 percent of the regional VMT per employee could result in a significant impact. This threshold is in line with statewide greenhouse gas emission reduction targets.
- For retail projects, OPR recommends measuring the net decrease or increase in VMT in the study area with and without the project. The recommended impact threshold is any increase in total VMT.
- Lead agencies ultimately have the discretion to set or apply their own significance thresholds, provided they are based on significant 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 CEQA impacts.

Assembly Bill 417

In October 2013, AB 417 created a statutory CEQA exemption for bicycle plans in urbanized areas. Before the passage of this bill, cities and counties that prepared bicycle plans were required to carry out a CEQA review. AB 417 exempts the following types of bicycle projects in an urbanized area:

- Restriping of streets and highways;
- Bicycle parking and storage;
- Signal timing to improve intersection operations;
- Signage for bicycles, pedestrians, and vehicles.

However, not all bicycle plans are exempt if certain conditions are met (e.g., a new Class I bicycle trail through a sensitive natural area).

REGIONAL

Association of Bay Area Governments and Metropolitan Transportation Commission Bay Area Plan

Plan Bay Area 2050 was jointly adopted by the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) in October 2021 and is the region's Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS). The Bay Area Plan is a long-range regional plan for the nine-county San Francisco Bay Area, encompassing housing, economic, transportation, and environmental strategies designed to make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges.

The Bay Area Plan is composed of 35 integrated strategies across the four elements that provide a blueprint for how the Bay Area can accommodate future growth and make the region more equitable and resilient in the face of unexpected challenges and achieve regional GHG emissions reduction targets established by CARB, pursuant to SB 375.

Plan Bay Area 2050 sets forth regional transportation policy and provides capital program planning for all regional, State, and Federally funded projects. In addition, Plan Bay Area provides strategic investment recommendations to improve regional transportation system performance over the next 20 years. Investments in regional highway, transit, local roadway, bicycle, and pedestrian projects are set forth. Project recommendations are premised upon factors related to existing infrastructure maintenance, increased transportation system efficiencies, improved traffic and transit operations, and strategic expansions of the regional transportation system.

Contra Costa Transportation Authority

Contra Costa Transportation Authority (CCTA) is the Congestion Management Agency for Contra Costa County and they are tasked with preparing the Congestion Management Plan (CMP) which outlines strategies to address congestion problems and to monitor compliance. MTC requires that the local transportation authorities, such as CCTA, establish their own transportation plans that can feed into the larger RTP. The CMP is developed cooperatively with local governments, transit agencies, MTC, Caltrans, and the Bay Area Air Quality Management District.

COUNTYWIDE TRANSPORTATION PLAN

The Countywide Transportation Plan (CTP) provides the overall direction for achieving and maintaining a balanced and functional transportation system within Contra Costa County while strengthening links between land use decisions and transportation. It outlines CCTA's vision for future transportation and establishes goals, strategies, projects, and actions for achieving that vision. The CTP is also the detailed plan which helps inform and direct transportation funding allocated throughout Contra Costa County. The current CTP was adopted in 2017, and a process is underway to prepare an updated CTP which will be adopted in 2023.

ACTION PLANS

There are a total of five Action Plans, one for each subarea of the Contra Costa region. The Action Plans are intended to reduce the impact of new development on the County's transportation system as a requirement of the CCTA Measure J Growth Management Program (GMP) that ensures local jurisdictions participate in a cooperative, multi-jurisdictional planning process. The Action Plans outline quantitative service objectives that each local jurisdiction enforces, which can include requiring developers to complete certain improvements to the transportation system as a condition of project approval. The City of Martinez is part of the Central County Action Plan and applies the transportation service objectives from that plan.

CONGESTION MANAGEMENT PROGRAM

The Congestion Management Program (CMP) outlines a Congestion Management Agency's strategies for managing the performance of the regional transportation within its county. Each CMP must contain several components:

- Traffic level-of-service standards applied to a designated system of State highways and principal arterial streets
- Multi-modal performance measures to evaluate current and future system

- A seven-year capital program of projects to maintain or improve the performance of the system or mitigate the regional impacts of land use projects
- A program to analyze the impacts of land use decisions
- A travel demand element that promotes transportation alternatives to the single-occupant vehicle

The Contra Costa County CMP was updated in 2021. In Martinez, the CMP designates the following facilities as Routes of Regional Significance to be monitored as part of the CMP network:

- Interstate 680 (I-680)
- State Route 4 (SR-4)
- Alhambra Avenue - Arch Street to Taylor Boulevard
- Intersection of Alhambra Avenue at the SR 4 eastbound ramps

COUNTYWIDE BICYCLE AND PEDESTRIAN PLAN

CCTA developed and updates the Countywide Bicycle and Pedestrian Plan (CBPP) to harmonize local plans for bicycle and pedestrian networks, and to better understand where and how often people walk and cycle within Contra Costa. On July 18, 2018, the Authority adopted its latest update, the 2018 CBPP. This update addresses changes in both local and State policy and focuses on making the CBPP a better tool for supporting walking and bicycling in Contra Costa. The 2018 CBPP makes several key updates:

- Identifies Pedestrian Priority Areas where more people are expected to walk and where safety issues are most acute
- Redefines the Countywide Bikeway Network as a low-stress and connected system of facilities designed to serve all ages and abilities
- Updates the implementation chapter to new issues and concerns such as “vision zero”, docked and dockless bike share, assessing pedestrian needs, and establishing short- and long-term priorities
- Updates best practices for developing pedestrian and bicycle facilities

The CBPP identifies Downtown Martinez as a Pedestrian Priority Area.

LOCAL

Downtown Martinez Community-Based Transportation Plan

The Downtown Community-Based Transportation Plan (DCBTP) was adopted by the City in 2020, as part of a program where MTC allocated funds to develop DCBTPs for the Bay Area’s Communities of Concern, including Downtown Martinez. The Regional Transportation Plan (RTP) developed by MTC, called Plan Bay Area, estimates that 78 percent of new housing and 62 percent of new jobs by 2040 will be built within Priority Development Areas (PDAs). PDAs typically have existing transit services and are near established job centers, retail districts, and other service. Local governments create land-use plans and policies for their PDAs. Downtown Martinez is a designated PDA. The DCBTP identifies barriers to mobility based on a comprehensive review of existing conditions and an in-

depth stakeholder outreach effort. It was found that while the majority of Martinez residents travel by car, Downtown area residents own proportionally fewer cars than residents residing in Martinez or the County. As such, Downtown Area residents are more likely to ride transit, bike, and walk to work. The DCBTP addresses gaps in Martinez’s transportation system by offering recommendations for future capital and programmatic investments.

Foreseeable challenges to be addressed in the DCBTP include public agencies facing significant fiscal obstacles to delivering adequate mobility services, the continued growth of the over 80-year-old population at a faster rate than other age cohorts, and consistently meeting mobility and accessibility needs of individuals with disabilities. Recommended strategies include: infrastructure improvements, particularly for pedestrian safety; safe routes to school measures; transit passes and programs; micro-mobility; and training and education programs. Beyond recommendations to expand pedestrian and bicycle infrastructure and the County Connection bus service area, the Plan offers programmatic recommendations to improve access for Martinez’s disadvantaged sub-populations. Programs include implementation of the Martinez Community Shuttle, transit fare provisions, and transit vouchers.

Martinez Downtown Specific Plan

The Downtown Specific Plan was adopted by the City of Martinez in 2006 and includes recommendations for considerations for one-way versus two-way street operation, additional bike lanes, pedestrian crossing enhancements and added stop signs. The Downtown Martinez Specific Plan study area covers about 220 acres and is bounded on the north by the Martinez Regional Shoreline and Martinez Waterfront Park; on the east by the Shell Martinez Refinery and a hillside residential area accessed from Miller Avenue; on the south by Susana Street; and on the west by cemeteries, Rankin Park, Talbart and Richardson Avenues, and by Thomas Hill, the bluff to the west of Berrellesa Street. The study area includes the Downtown commercial and civic core and surrounding neighborhoods. The Downtown Specific Plan is intended to promote smart growth and sustainable development by providing compact, pedestrian-oriented development, providing for a denser housing withing walking distance of transportation centers, taking advantage of existing infrastructure, providing for mixed land uses, and requiring attractive, distinctive design for new development.

City of Martinez Municipal Code

Title 14, *Emergency Organization and Functions*, provides for the preparation and carrying out of plans for the protection of persons and property within the City in the event of an emergency; the direction of the emergency organization; and the coordination of the emergency functions of this City with all other public agencies, corporations, organizations, and affected private persons.

4.14.3 IMPACTS AND MITIGATION MEASURES

METHODS OF ANALYSIS

The analysis assesses how the Study Area's transportation system would operate with the implementation of the City of Martinez General Plan Update. The potential impacts were identified based on a set of significance criteria based on the 2022 CEQA Guidelines.

Vehicles Miles Traveled

Vehicle-miles of travel (VMT) is determined by multiplying the number of vehicular trips by the trip distance in miles. For example, one vehicle that travels ten miles in a day generates ten VMT. For the purposes of this analysis, VMT is expressed on a daily basis for a typical weekday. VMT values in this analysis represent the full length of a given trip and are not truncated at jurisdiction boundaries. Additionally, these VMT values are for trips beginning or ending in the City (i.e., are associated with land uses within Martinez). Trips passing through the City without stopping are not included in these VMT estimates, as the City has little or no control over such trips.

Although the absolute amount of VMT may be reported, transportation impact analysis is typically based on VMT expressed as an efficiency metric. VMT efficiency metrics, such as VMT per resident and VMT per employee, allow the VMT performance of different land use quantities to be compared. Such metrics provide a measure of travel efficiency and help depict whether people are traveling by vehicle more or less over time, across different areas, or across different planning scenarios. A per-capita or per-employee decline in VMT compared to a baseline condition indicates that the land use patterns and transportation network are operating more efficiently.

Two measures of VMT are used in this analysis:

- **VMT per capita** for residential land uses. Includes VMT for all trips produced by a dwelling unit's residents, such as to work, school, or shop, on a typical weekday.
- **VMT per employee** for non-residential land uses. Includes all trips made by employees at the non-residential land use on a typical weekday, not including visitors to the non-residential land use such as customers, patients, or deliveries.

The Contra Costa Countywide travel model maintained by CCTA is used to identify the VMT generated by land uses in Martinez as well as Contra Costa County and the entire nine-county Bay Area. VMT estimates for the 2020 baseline modeled conditions are shown in Table 4.14-1. In addition to the two metrics presented above, total VMT metrics are reported for information purposes. The total VMT includes the residential VMT (trips made by residents to and from their homes) and employee VMT (commute trips made by employees), and also includes VMT from additional trips such as customers at stores, trips between multiple errands, visitors to medical facilities, deliveries, or other non-commute work-related trips.

4.14 TRANSPORTATION AND CIRCULATION

TABLE 4.14-1: DEMOGRAPHICS AND VMT, 2020 BASE CONDITIONS

Units	Bay Area Region	Contra Costa County	City of Martinez	Study Area
VMT Per Capita				
Population	7,886,823	1,155,101	36,715	43,418
Residential VMT	104,929,947	19,993,544	584,038	702,986
VMT per Capita	13.3	17.3	15.9	16.2
VMT per Employee				
Employees	4,194,788	409,034	18,792	22,520
Employee VMT	65,300,370	6,104,384	324,880	389,783
VMT per Employee	15.6	14.9	17.3	17.3
Total VMT				
Total VMT	315,994,167	46,913,493	1,694,798	2,022,923

SOURCE: KITTELSON & ASSOCIATES, 2022.

Analysis Scenarios

The following scenarios were analyzed using the Contra Costa Countywide travel demand model. Buildout of the existing General Plan was also analyzed in a separate scenario, as discussed in Sections 2.0, Project Description, and 6.0, Alternatives.

- **2020 Baseline.** The baseline land use described earlier in this section.
- **Proposed General Plan Buildout.** Buildout of the land use development identified in the proposed General Plan Update.

Table 4.14-2 summarizes the potential housing units and employees associated with the City's existing General Plan and the proposed General Plan Update compared to existing (2020) baseline conditions. The total housing units and employees listed in Table 4.14-2 are slightly different than those listed in Section 2.0, Project Description due to differences between the Study Area boundary and the boundaries of the transportation analysis zones (TAZs) used in the travel model; however, the growth increments used in the transportation analysis are fully consistent with the Project Description.

TABLE 4.14- 2: STUDY AREA TRANSPORTATION ANALYSIS LAND USE INPUTS

Land Use	2020 Base Year	Existing General Plan	2040 Proposed General Plan
Housing Units			
Single Family	12,900	13,710 (+6%)	13,760 (+7%)
Multi-Family	3,230	4,260 (+32%)	4,420 (+37%)
Total	16,130	17,970 (+11%)	18,180 (+13%)
Employees			
Retail	2,290	2,660 (+16%)	2,790 (+22%)
Non-Retail	16,780	18,230 (+9%)	18,700 (+11%)
Total	19,070	20,890 (+10%)	21,490 (+13%)

SOURCE: DE NOVO PLANNING GROUP, KITTELSON & ASSOCIATES, 2022

NOTE: PERCENTAGES INDICATE GROWTH INCREMENT FROM 2020 BASELINE.

The General Plan Update would accommodate future growth in Martinez, including new businesses, expansion of existing businesses, and new residential uses. As shown in Section 2.0, Project Description, buildout of the General Plan Update could yield up to 2,060 new residential units and nearly three million square feet of new non-residential development in the Study Area. This new growth would increase the Study Area's population by approximately 5,150 residents. The full development of the new commercial, office, and industrial uses would increase the employment opportunities by approximately 2,420 employees. The jobs:housing ratio associated with new development would be approximately 1.25, with full buildout of residential and employee-generating uses.

As demonstrated in Table 4.14-2, multi-family housing is expected to increase at a faster rate than single-family housing. Under the proposed General Plan Update, employment within Martinez is expected to grow at approximately the same rate as housing, ensuring that the future mix of land uses would provide opportunities for Martinez residents to work, shop and access services within Martinez.

Travel Demand Model

Forecasts of regional travel by various modes, regional average VMT per capita and VMT per employee values are determined using the Contra Costa Countywide travel model. The travel demand model is a set of mathematical procedures and equations that represent the variety of transportation choices that people make, and how those choices result in trips on the transportation network.

The Contra Costa Countywide travel model is a trip-based model that groups land uses into transportation analysis zones (TAZs). The model uses a series of calculation steps to estimate travel associated with the land uses and transportation network.

- **Vehicle Ownership:** How many vehicles are owned by the households in each TAZ based on incomes and accessibility to transit
- **Trip Generation:** How many daily trips by trip purpose are generated by each land use in each TAZ
- **Trip Distribution:** How many trips of each type travel to each other TAZ
- **Mode Choice:** Which travel modes are used by people of different demographic categories for trips of different purposes between each origin and destination
- **Time of Day:** Which trips are made during peak hours versus off-peak hours
- **Trip Assignment:** Which routes are used by each vehicle trip or transit trip

The daily activity patterns in the travel model are based on a statistical analysis of a household travel survey, where a representative sample of households were asked to track all daily activities and trips by all members of their household. The travel model was calibrated to these surveyed travel patterns, and also validated by its ability to replicate counted traffic volumes, transit ridership, and total VMT from the Highway Performance Measurement System (HPMS) which is based on traffic counts.

TRANSPORTATION NETWORKS

The travel model contains representations of transportation networks for all travel modes. The model road network includes freeways, highways, arterial streets, most collector streets, and local streets which provide connectivity between neighborhoods. The roads are coded with information on functional classification, number of through lanes, speed, and capacity.

All regular weekday transit routes are coded in the model. Bus routes are assumed to run on the streets and be subject to varying congested conditions on those streets. Rail transit operates on separate facilities and is not affected by road congestion. The model also has a general representation of transit stop locations and park-and-ride access.

Bicycles and pedestrians are assumed to have access to all streets except freeways. Separate non-motorized paths are represented where required to show additional access not provided by the local street system.

FUTURE TRAVEL TRENDS

The travel model presumes that future background travel options and behaviors remain similar to current conditions and does not explicitly account for potential changes associated with disruptive trends, emerging technologies, and changes in travel preferences. The model also does not assume a significant increase in working at home compared to baseline conditions. As a result, the travel model is likely to represent a conservative estimate of future amounts of commuting, vehicle use and VMT.

The travel model requires land uses to be defined for each geographic area in the nine-county study area. The model defines land uses in TAZs which are typically bounded by major arterial or collector streets and are generally subdivisions of Census tracts. The model land use inputs include numbers of households and employees by employment category, as well as enrollment at schools.

The Contra Costa model had defined a 2040 land use forecast based on the Plan Bay Area 2040 Regional Transportation Plan. This forecast was generally consistent with the allowable land uses in the current Martinez General Plan, but did not fully account for potential buildout of the proposed General Plan Update. In order to more completely assess the transportation impacts of the proposed General Plan Update, a revised future 2040 land use forecast was prepared for this EIR.

The future land use forecasts are consistent with the proposed General Plan Update land use map. More specific assumptions were developed for potential buildout of each General Plan land use category. A detailed mapping of parcels and allowable development was compiled to determine the buildout potential of each parcel within the Study Area.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed General Plan will have a significant impact on the environment associated with transportation and circulation if it will:

- Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;
- Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (a);
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access.

Vehicles Miles Traveled Thresholds

Based on Appendix G of the CEQA Guidelines, the General Plan would result in a significant transportation impact if it would conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)(1), which states for land use projects, “Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact.” CEQA Guidelines § 15064.3, subdivision (b)(4) states, “A lead agency has discretion to choose the most appropriate methodology to evaluate a project’s vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project’s vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence.”

The proposed Circulation Element lists standards of significance for evaluating VMT. These standards are based on guidance provided by the California Governor’s Office of Planning and Research (OPR) in the publication Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory, 2018 and the draft VMT Analysis Methodology for Land Use Projects in Contra Costa published by CCTA in 2020. The guidance documents indicate that a residential project

generating vehicle travel that is 15 percent or more below the existing Citywide or regional residential VMT per capita may indicate a less-than-significant transportation impact. For the purposes of this analysis, the average VMT per capita resulting from buildout of the General Plan Update was assessed using a significance threshold based on the countywide average for Contra Costa County.

Similarly, an employment-based project generating vehicle travel that is 15 percent or more below the baseline VMT per employee may indicate a less-than-significant transportation impact. For the purposes of this analysis, the applied VMT per employee significance threshold is based on the regional average for the nine-county Bay Area, as recommended in the CCTA draft methodology.

The Contra Costa Countywide Travel Model was used to estimate the following metrics for comparison purposes:

- Average VMT per resident (Home-based trip VMT per resident in the Study Area)
- Average VMT per employee (Work-based trip VMT per employee in the Study Area)

Transit, Bicycles, and Pedestrians

Appendix G of the CEQA Guidelines indicates that impacts may be significant if a project conflicts with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. The General Plan Update would have a significant impact on transit, bicycles, or pedestrians if it would conflict with adopted policies, plans, or programs regarding these systems, or create or exacerbate disruptions to the performance or safety of these systems.

Hazards and Emergency Access

Appendix G of the CEQA Guidelines indicates that impacts may be significant if a project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Impacts may also be significant if a project results in inadequate emergency access. The General Plan Update would have a significant impact on the transportation system if it would increase hazards due to a design feature, incompatible uses, or inadequate emergency access.

IMPACTS AND MITIGATION MEASURES

Impact 4.14-1: General Plan implementation would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities (Less than Significant)

CIRCULATION SYSTEM

The Contra Costa County CMP has provided Level of Service thresholds for intersections and roadway segments since the 1990s. The City of Martinez participates in the Countywide Congestion Management Program. The intent of the program is to reduce congestion while simultaneously improve land use decision making and air quality. While CMP intersections and roadways located within the City of Martinez would previously be subject to LOS thresholds set forth by CCTA, LOS is no longer considered an environmental impact under California State law.

The General Plan Update includes adoption of a new Circulation map that redefines and consolidates the City's roadway classifications. As a result, some roadways are reclassified to better describe their intended function related to access and mobility. The reclassification of some roadways includes an updated definition of their intent, including the provision of design elements that support safe biking and walking along with serving a mobility function. The Land Use, Circulation, and EJ & Disadvantaged Communities Elements developed as part of the General Plan Update contain several policies that support access to and the performance of transit, bicycle, and pedestrian facilities.

BICYCLE AND PEDESTRIAN CIRCULATION

The Contra Costa Countywide Bicycle and Pedestrian Plan (CBPP) identifies goals and objectives to improve biking and walking conditions and safety throughout the county. The CBPP identifies Pedestrian Priority Areas and a Countywide Bikeway Network. Implementation Measure C-I-8.1e of the Circulation Element specifically states that facilities for bicycle travel (Class I bike/multiuse paths, Class II bike lanes, Class III bike routes, and Class IV bikeways) shall be provided to complete a continuous system, consistent with the CBPP. The policies listed below focus on the development of a multimodal transportation network in Martinez which is consistent with the CBPP. As historically the transportation network has emphasized meeting the needs of motor vehicle transportation, these policies place an increased emphasis on the enhancement of facilities to improve walking, bicycling and transit use.

PUBLIC TRANSIT SYSTEM

The City does not have defined measures of effectiveness for public transit service and circulation. The proposed General Plan Update would be expected to increase demand for travel given the proposed development and expected increase in residents and employees. Population and job growth within the City could increase the demand for public transit but also resulting in increased levels of vehicular traffic which could slow transit operations and impact transit reliability. The Circulation Element developed as part of the General Plan Update includes policies to support and

enhance transit service. Specifically, Policy C-P-10.1 promotes the use of public transportation for daily trips. Implementation Measures C-I-10.1a and C-I-10.1b encourage working with CCTA to continue to support and expand transit routes that serve regional destinations within the City and transit loops to support local and regional medical centers, schools, and employment designations. Measure C-I-10.1d encourages ridership on public transit systems through marketing and promotional efforts. Measure C-I-10.1e encourages coordination with partner agencies to implement regional transit solutions as part of the MTC SB 375 Sustainable Communities Strategy, and the City's Climate Action Plan. Measure C-I-10.1g, support efforts to improve coordination and efficiency of bus service on a regional level.

Implementation of the General Plan Update would support and encourage the integration and use of multi-modal transportation options throughout the Study Area. As demonstrated above, General Plan Update implementation would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit roadway, bicycle, and pedestrian facilities and this impact is considered **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Land Use Element

Policies

- LU-P-2.2 Support the transformation of Downtown Martinez into a pedestrian-oriented commercial and mixed-use district with a mix of office, retail, government, high and mid-density residential, cultural, and entertainment land uses, designed to create an active lively streetscape and a sense of place.
- LU-P-12.6 Develop a plan for pedestrian connections in the Downtown such as plazas and paseos.

Implementation Measures

- LU-I-2.2a Pursue implementation of the transportation improvement policies in the Downtown Community Based Transportation Plan
- LU-I-6.1a Review all development proposals, planning projects, and infrastructure projects to ensure that potential adverse impacts to disadvantaged communities, such as exposure to pollutants, including toxic air contaminants, and unacceptable levels of noise and vibration are reduced to the extent feasible and that measures to improve quality of life, such as connections to bicycle and pedestrian paths, community services, schools, and recreation facilities, access to healthy foods, and improvement of air quality are included in the project. The review shall address both the construction and operation phases of the project.

Circulation Element**Goals**

- C-G-1 Encourage safe and convenient access to activities in the community and provide a well-designed local roadway system as well as pedestrian pathways and bicycle lanes.

Policies

- C-P-1.1 Provide safe and well-connected neighborhood streets that balance automotive circulation with neighborhood design and bicycle and pedestrian user safety.
- C-P-1.4 Provide a comprehensive citywide system of bicycle lanes and recreational trails that improve accessibility without the use of an automobile.
- C-P-2.2 Strive to reduce total vehicle miles traveled (VMT) by City residents by planning an efficient circulation system that complements existing and planned land uses, improves access to alternative transportation modes for bicycle, pedestrian, and transit users, and provides more direct routes to City and regional destinations.
- C-P-2.3 Ensure compatibility and complementary relationships between the circulation system and existing and planned land uses, promoting environmental objectives such as safe and uncongested neighborhoods, energy conservation, reduction of air and noise pollution, and access to bicycle, pedestrian, and transit facilities.
- C-P-5.1 Plan and prioritize Downtown area improvements that reduce congestion and promote non-motorized travel between nearby complementary uses.
- C-P-5.4 Consider reduced street widths, increases in width of bicycle lanes and sidewalks, as well as reduction in vehicular speed to create a greater sense of community and place.
- C-P-7.1 Plan for safe, complete, and well-connected neighborhood streets. Modify the existing street network where possible to enable direct physical connections within and between residential areas, shopping destinations, employment centers, and neighborhood parks/open spaces including, where appropriate, connections accessible only by pedestrians and bicycles to and/or from existing cul-de-sacs. Evaluate projects to ensure that the safety, comfort, and convenience of pedestrians, bicyclists, and transit users are given equal level of consideration to motor vehicle operators.
- C-P-7.2 Design and implement “Complete Streets” that enable safe, comfortable and attractive access for all users – pedestrians, motorists, bicyclists, and transit riders of all ages and abilities – in a manner that is compatible with and complementary to adjacent development and promotes connectivity between complementary land uses. New development projects must contribute to or construct transit facilities where the project would induce or increase demand on nearby arterial and collector streets, as determined through a Transportation Impact Analysis funded and completed by the project applicant.

- C-P-8.2 Recognize and meet the mobility needs of pedestrians and bicyclists of all skill levels and ages, persons using wheelchairs, and those with other mobility limitations.
- C-P-8.3 Develop off-street pedestrian linkages, including connections that allow pedestrians travel through the ends of cul-de-sacs, pedestrian paths, bridges over creeks and roadways, and pedestrian circulation improvements throughout the City.
- C-P-8.4 Provide safe and direct pedestrian routes and bicycle facilities between destinations to enhance the non-motorized circulation network and interface with regional systems.
- C-P-10.1 Promote the use of public transportation for daily trips, including to schools and workplaces, as well as other purposes.
- C-P-10.2 Continue to cooperate with other partner agencies and jurisdictions to promote local and Martinez connections to regional public transit, including CCCTA and MTC.
- C-P-10.4 Coordinate with public transit agencies to facilitate safe, efficient and convenient pedestrian and bicycle access to transit stops, and work with agencies to relocate stops if necessary.
- C-P-10.5 Encourage transit use by working with regional transportation providers to install bus stops, shelters, benches, turnouts, park and ride lots, transfers, and other necessary facilities on arterial and collector streets.

Implementation Measures

- C-I-10.1a Work with CCCTA to continue to support and expand transit routes that serve regional destinations within the City like the Downtown area, medical centers, and the Amtrak station.
- C-I-10.1b Work with CCCTA to continue to support and expand transit loops to serve local and regional medical centers, schools, and shopping, employment and recreation destinations.
- C-I-10.1d Encourage ridership on public transit systems through marketing and promotional efforts. Provide information to residents and employees on transit services available for local and regional trips.
- C-I-10.1e Coordinate with partner agencies to implement regional transit solutions as part of the MTC SB 375 Sustainable Communities Strategy, and the City's Climate Action Plan.
- C-I-10.1g Support efforts to improve the coordination and efficiency of bus service on a regional level and, if appropriate, the regionalization of transit service delivery.

EJ & Disadvantaged Communities Element***Policies***

- EJ-P-2 Provide safe and well-connected neighborhood streets that balance automotive circulation with neighborhood design and bicycle and pedestrian user safety.
- EJ-P-3 Provide a comprehensive citywide system of bicycle lanes and recreational trails that improve accessibility without the use of an automobile.
- EJ-P-4 Strive to reduce total vehicle miles travelled by City residents by planning an efficient circulation system that complements existing and planned land uses, improves access to alternative transportation modes for bicycle, pedestrian, and transit users, and provides more direct routes to City and regional destinations.
- EJ-P-5 Plan and prioritize Downtown area improvements that reduce congestion and promote non-motorized travel between nearby complementary uses.
- EJ-P-14 Work with the Contra Costa County Transportation Authority (CCCTA) to continue to support and expand transit loops to serve local and regional medical centers, schools, and shopping, employment and recreation destinations.
- EJ-P-28 Review all development proposals, planning projects, and infrastructure projects with the objective of avoiding adverse health impacts to disadvantaged communities, such as exposure to pollutants, including toxic air contaminants, and unacceptable levels of noise and vibration. Require to the extent feasible, measures in each public and private development, to improve physical activity such as connections to bicycle and pedestrian paths and recreation facilities. The measures should address both the construction and operation phases of the project.
- EJ-P-31 Promote walking and bicycling for transportation, recreation, and improvement of public and environmental health.
- EJ-P-32 Facilities for bicycle travel (Class I bike/multiuse paths, Class II bike lanes, Class III bike routes, and Class IV bikeways) shall be provided to complete a continuous system, consistent with the Countywide Bicycle & Pedestrian Plan.
- EJ-P-33 Encourage further expansion of the existing network of continuous walkways, and encourage the development and encourage the development of new continuous walkways, between schools and residential areas

Impact 4.14-2: General Plan implementation would conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (a) (Significant and Unavoidable)

CEQA Guidelines § 15064.3, subdivision (a) indicates that a land use project would have a less than significant impact if the vehicle miles traveled (VMT) in the project area are expected to be less than that of existing conditions. Since the proposed General Plan Update would allow for intensification of existing land uses, its implementation would lead to increased VMT overall, and further analysis

4.14 TRANSPORTATION AND CIRCULATION

of the significance of such increases is required. For the purposes of this analysis and based on the guidance provided by the Governor’s Office of Planning and Research (OPR) and CCTA, VMT was analyzed using efficiency metrics including the average VMT per capita generated by residents of Martinez as well as the home-based VMT per employee generated by workers in the City of Martinez.

The changes in VMT metrics related to implementation of the proposed General Plan Update are compared to 2020 baseline conditions for 2040 conditions with the existing General Plan (No Project) and the proposed General Plan (Cumulative). The VMT metrics are evaluated for the total of all land uses in the Study Area. The per capita and per employee VMT under existing conditions and the proposed General Plan Update for the Study Area are shown in Table 4.14-3. Since the boundaries of Traffic Analysis Zones (TAZs) from the CCTA model are not aligned with the Study Area boundary, the residents and employees presented in Table 4.14-3 are the sum of land uses of TAZs that are completely within the Study Area boundary and TAZs that have majority part within the Study Area boundary.

As shown in Table 4.14-3, the proposed General Plan Update would exceed VMT thresholds. Future conditions in the Study Area as a result of development facilitated by the General Plan Update would result in decreased VMT per capita and increased VMT per employee in comparison to existing conditions. For Cumulative 2040 conditions, VMT per capita would decrease by 8.6 percent, from 16.2 to 14.8, while VMT per employee would increase from 17.3 to 18.3.

TABLE 4.14-3: VEHICLE MILES TRAVELED ANALYSIS

Statistic	Baseline (2020)	Threshold1	Proposed General Plan Update (2040)	Change in VMT per Resident/Employee	Significant Impact
VMT per Capita	16.2	14.7	14.8	-8.6%	Yes
VMT per Employee	17.3	12.7	18.3	+5.8%	Yes

SOURCE: KITTLESON & ASSOCIATES, INC., 2022.

NOTES:

1. THRESHOLD FOR VMT PER CAPITA IS 15% BELOW COUNTY AVERAGE AND THRESHOLD FOR VMT PER EMPLOYEE IS 15% BELOW CITY AVERAGE.

The VMT changes from existing conditions to buildout year (2040) indicate that future development, in particular planned mixed-use development, would provide more opportunities for Martinez residents to access jobs and services within shorter distances. The shorter resident trip distances reduce VMT by vehicles and also increase the likelihood that trips would be made by non-auto modes such as bicycling and walking. Improved transit service and accessibility to transit also help to reduce VMT even as travel activity increases. The increases in VMT per employee indicate that more commuters are expected to come from further distances as the Bay Area expands. These increased commute distances counteract some of the benefits of the local land use patterns provided in the proposed General Plan Update.

The impact threshold for VMT per capita is 14.7 (15% below the County average $17.3 \times 0.85 = 14.7$). The 2040 Cumulative with the proposed General Plan Update results in a total Study Area VMT per

capita of 14.8, which slightly exceeds the threshold. Thus, the VMT per capita generated by the General Plan Update would constitute a **significant impact**.

The impact threshold for VMT per employee is 12.7 (15% below the City average $14.9 \times 0.85 = 12.7$). The 2040 Cumulative with the General Plan Update results in a total Study Area VMT per employee of 18.3, which exceeds the threshold. The VMT per employee generated by the employment development associated with the proposed General Plan would constitute a **significant impact**.

Implementation of the proposed General Plan Update's land use map, as well as its proposed goals, policies, and implementation measures, would reduce VMT. Circulation Element Policy C-P-2.2 encourages the reduction of total VMT by City residents by planning an efficient circulation system. Policy C-P-1.4 supports a comprehensive citywide system of bicycle lanes and recreational trails that improve accessibility without the use of an automobile. The General Plan Update includes policies and implementation measures to encourage Downtown Martinez to develop as a mixed-use center, which would reduce VMT. Land Use Element Policy LU-P-2.1 supports land use patterns and mixed-use infill development in the City's Downtown Priority Development Area (PDA) that would attract and serve riders for public transit. Circulation Element Policy C-P-5.1 prioritizes Downtown area improvements that reduce congestion and promote non-motorized travel between nearby complementary uses. Measure C-I-5.1a requires new developments to construct projects that maximize opportunities for alternative transportation modes such as bicycle and pedestrian paths as well as public transit opportunities to create easy access to and from Downtown. Measure C-I-5.1e improves the existing street network to minimize travel times and improve mobility for transit, bicycle and walking trips between new projects and surrounding land uses in an effort to reduce vehicle trips.

The General Plan Update includes policies and implementation measures to reduce VMT to the extent feasible. These policies primarily reduce employment-based VMT, where the significant impacts would occur, although some policies pertain to residential VMT as well. Transportation demand management (TDM) strategies would be promoted citywide, with an emphasis on implementing measures through large employers, the setting where there is the greatest potential to reduce vehicle trips.

Individual development projects would also be required to complete a VMT analyses based on VMT policies and thresholds to be established by the City of Martinez, including TDM measures designed to reduce employment based VMT. While such measures are likely to result in less-than-significant VMT impacts when considered at an individual project level, they cannot be guaranteed and are not possible to fully quantify or mitigate at a Citywide level as part of a programmatic General Plan, particularly given the percent reduction needed to reach the applied significance threshold. As a result, the VMT impacts associated with employment-based uses allowed by the proposed General Plan Update would be considered **significant and unavoidable**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Land Use Element

Policies

LU-P-2.1 Support land use patterns and mixed-use infill development in the City’s Downtown Priority Development Area (PDA) that will attract and serve riders of public transit.

Circulation Element

Policies

C-P-1.4 Provide a comprehensive citywide system of bicycle lanes and recreational trails that improve accessibility without the use of an automobile.

C-P-2.2 Strive to reduce total vehicle miles traveled (VMT) by City residents by planning an efficient circulation system that complements existing and planned land uses, improves access to alternative transportation modes for bicycle, pedestrian, and transit users, and provides more direct routes to City and regional destinations.

C-P-5.1 Plan and prioritize Downtown area improvements that reduce congestion and promote non-motorized travel between nearby complementary uses.

C-P-8.1 Promote walking and bicycling for transportation, recreation, and improvement of public and environmental health.

C-P-10.1 Promote the use of public transportation for daily trips, including to schools and workplaces, as well as other purposes.

Implementation Measures

C-I-5.1a Require new development to construct projects that maximize opportunities for alternative transportation modes such as bicycle and pedestrian paths as well as public transit opportunities to create easy access to and from Downtown.

C-I-5.1e Improve the existing street network to minimize travel times and improve mobility for transit, bicycle, and walking trips between new projects and surrounding land uses in an effort to reduce vehicle trips.

EJ & Disadvantaged Communities Element

Policies

EJ-P-3 Provide a comprehensive citywide system of bicycle lanes and recreational trails that improve accessibility without the use of an automobile.

- EJ-P-4 Strive to reduce total vehicle miles travelled by City residents by planning an efficient circulation system that complements existing and planned land uses, improves access to alternative transportation modes for bicycle, pedestrian, and transit users, and provides more direct routes to City and regional destinations.
- EJ-P-5 Plan and prioritize Downtown area improvements that reduce congestion and promote non-motorized travel between nearby complementary uses.
- EJ-P-31 Promote walking and bicycling for transportation, recreation, and improvement of public and environmental health.
- EJ-P-32 Facilities for bicycle travel (Class I bike/multiuse paths, Class II bike lanes, Class III bike routes, and Class IV bikeways) shall be provided to complete a continuous system, consistent with the Countywide Bicycle & Pedestrian Plan.
- EJ-P-33 Encourage further expansion of the existing network of continuous walkways, and encourage the development and encourage the development of new continuous walkways, between schools and residential areas.

Impact 4.14-3: General Plan implementation would not substantially increase hazards due to a geometric design feature or incompatible use (Less than Significant)

The City of Martinez maintains improvement standards that guide the construction of new transportation facilities to minimize design hazards for all users of the system. Through the development and environmental review process, land use proposals that would add traffic to streets not designed to current standards are carefully evaluated. If needed, mitigation measures are identified, and the project is conditioned to construct or provide funding for an improvement that would minimize or eliminate the hazard. Typical improvements include shoulder widening, adding turn pockets, adding sidewalks or crosswalks, realigning sharp curves, prohibiting certain turning movements, and signaling intersections, among other options. New and upgraded roadways needed to accommodate new development would be designed according to applicable federal, State, and local design standards.

The types of uses included as part of the General Plan Update are generally similar to existing and surrounding uses and thereby are compatible with the existing uses in the Study Area and in the surrounding area. In addition, the Circulation Element developed as part of the General Plan Update contains policies in support of roadway network safety and reducing design hazards. This includes proposed Circulation Element Implementation Measure C-I-8.1a which provides pedestrian facilities that are accessible to persons with disabilities and ensures that roadway improvement projects address accessibility by employing universal design concepts consistent with ADA requirements. Policy C-P-4.1 requires that all street standards be reviewed and revised including optional features such as landscaped medians and traffic calming features. Measure C-I-3.1a requires all arterials, collector and local streets are built in accordance with adopted City standards and to improve existing facilities to conform to classification standards where possible. Therefore, the impact of the

project with respect to design and incompatible use hazards would be considered **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Land Use Element

Policies

- LU-P-5.3 For the safety and convenience of users of waterfront lands and the continuity of a regional trails system, elevated crossing of the railroad for pedestrians, equestrians, bicyclists, and emergency vehicles should be considered.
- LU-P-10.1 Dedication of public roads in unstable hillside areas shall generally not be accepted by the City. Consideration may be given to acceptance where stability can be assured and where such roads are fully developed and provide through access to other existing development.

Circulation Element

Policies

- C-P-1.1 Provide safe and well-connected neighborhood streets that balance automotive circulation with neighborhood design and bicycle and pedestrian user safety.
- C-P-2.3: Ensure compatibility and complementary relationships between the circulation system and existing and planned land uses, promoting environmental objectives such as safe and uncongested neighborhoods, energy conservation, reduction of air and noise pollution, and access to bicycle, pedestrian, and transit facilities.
- C-P-4.1 All street standards shall be reviewed and revised as determined appropriate, including optional features such as landscaped medians, traffic calming features, and parkways or street trees, and other similar design amenities when approved by the City. When reviewing new development consider alternative local street designs that meet the needs of vehicles, pedestrians, and bicyclists.
- C-P-6.1 Minimize, where possible, the number of access points along arterial roadways, including by consolidating or relocating driveways to provide for more efficient traffic movement.
- C-P-7.1 Plan for safe, complete, and well-connected neighborhood streets. Modify the existing street network where possible to enable direct physical connections within and between residential areas, shopping destinations, employment centers, and neighborhood parks/open spaces including, where appropriate, connections accessible only by pedestrians and bicycles to and/or from existing cul-de-sacs. Evaluate projects to ensure that the safety, comfort, and convenience of

pedestrians, bicyclists, and transit users are given equal level of consideration to motor vehicle operators.

- C-P-7.2 Design and implement “Complete Streets” that enable safe, comfortable and attractive access for all users – pedestrians, motorists, bicyclists, and transit riders of all ages and abilities – in a manner that is compatible with and complementary to adjacent development and promotes connectivity between complementary land uses. New development projects must contribute to or construct transit facilities where the project would induce or increase demand on nearby arterial and collector streets, as determined through a Transportation Impact Analysis funded and completed by the project applicant.

Implementation Measures

- C-I-3.1a Build arterials, collector and local streets in accordance with adopted City standards. Improve existing facilities to conform to classification standards where possible. Exceptions to the standards may be allowed by the City Engineer where mitigation is infeasible or would impact general safety, right of way needs, visual aesthetics, air quality and noise impacts, or overall quality of life.
- C-I-8.1a Provide pedestrian facilities that are accessible to persons with disabilities and ensure that roadway improvement projects address accessibility by employing universal design concepts consistent with ADA requirements.

EJ & Disadvantaged Communities Element

Policies

- EJ-P-2 Provide safe and well-connected neighborhood streets that balance automotive circulation with neighborhood design and bicycle and pedestrian user safety.
- EJ-P-4 Strive to reduce total vehicle miles travelled by City residents by planning an efficient circulation system that complements existing and planned land uses, improves access to alternative transportation modes for bicycle, pedestrian, and transit users, and provides more direct routes to City and regional destinations.
- EJ-P-32 Facilities for bicycle travel (Class I bike/multiuse paths, Class II bike lanes, Class III bike routes, and Class IV bikeways) shall be provided to complete a continuous system, consistent with the Countywide Bicycle & Pedestrian Plan.

Public Safety Element

Policies

- PS-P-13.1 Encourage adequate separation between areas that contain hazardous materials and sensitive receptors.

- PS-P-13.2 Recommend that hazardous materials storage and handling areas are designed to minimize the possibility of environmental contamination and adverse off-site impacts.
- PS-P-13.4 Require that all processes involving hazardous waste (including its transportation, storage, and disposal) are conducted in a manner that meets or exceeds state and federal standards.
- PS-P-14.1 Continue to work with the County Public Works Department, Aviation Advisory Committee, Airport Land Use Commission (ALUC), the Metropolitan Transportation Commission (MTC), Federal Aviation Administration (FAA), and other relevant agencies to minimize risk to lives and property due to hazards associated with the operation of Buchanan Field Airport.

Implementation Measures

- PS-I-13.1a Through land use policy and text amendments, establish an appropriate buffer between land uses involving hazardous materials and those where the presence of hazardous materials is incompatible.
- PS-I-13.6a Maintain information regarding train transport through Martinez by working with the railroad and industrial users to manage transport of hazardous materials within the City boundaries.

Impact 4.14-4: General Plan implementation would not result in inadequate emergency access (Less than Significant)

The proposed General Plan Update would include modifications to the existing transportation network which would potentially impact emergency access response times. The proposed changes in land use and motor vehicle infrastructure could result in increased vehicle delay at intersections as well as along roadway segments. Thus, an increase in emergency response times could occur.

The General Plan Update is a programmatic level document; emergency accessibility is typically assessed at the project level. At a programmatic level, the General Plan Update does not include any downgrading of facilities that would impede or obstruct emergency vehicle access along any roadways that currently provide existing emergency vehicle access. The General Plan Update does not include any site-specific development. Construction activities that may temporarily restrict vehicular traffic would be required to implement appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures.

The General Plan Update includes provisions to ensure that transportation systems are maintained and/or improved throughout the City. Further, the General Plan Update Public Safety Element confirms that the City has established prearranged emergency response procedures, identified evacuation routes, and executed mutual aid agreements for emergency assistance within the Martinez City limits. Table 8-2 in the General Plan Update identifies streets within VHFHSZ areas that

lack two routes for emergency evacuation and Measure PS-I-6.7a directs the City to cooperate with the Contra Costa Fire Protection District to establish CERT training and public education for residents in areas lacking two access points for evacuation procedures. Implementation Measure PS-I-11.1d requires the City to maintain and update the City's emergency response plan on a regular basis, designating emergency shelters and evacuation routes.

Adequacy of emergency access associated with future development projects would be analyzed and evaluated in detail through the environmental review process. Future development would be designed, constructed, and maintained in accordance with applicable standards, including vehicular access to ensure that adequate emergency access and evacuation would be maintained. Construction activities that may temporarily restrict vehicular traffic would be required to implement appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. As part of the site plan and design review process (Martinez Municipal Code Chapter 22.34), future development projects would be reviewed for adequate access as well as consistency with adopted emergency and evacuation plans among many other environmental issues in order to ensure the safety of City residents and the physical environment. Therefore, the impact of the General Plan Update with respect to emergency access would be considered **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Circulation Element

Policies

- C-P-1.1 Provide safe and well-connected neighborhood streets that balance automotive circulation with neighborhood design and bicycle and pedestrian user safety.
- C-P-1.3 Provide efficient citywide automobile circulation by maintaining and, where necessary, improving local and regional roadway facilities.
- C-P-6.2 Design standards should limit cul-de-sac lengths, provide a logical grid or connected system of local streets providing at least two directions of neighborhood access, and minimize through traffic on local streets, particularly traversing single-family residential neighborhoods.

Public Safety Element

Implementation Measures

- PS-I-6.7a In cooperation with the Contra Costa County Fire Protection District, establish CERT training and public education for residents in areas lacking two access points for evacuation procedures.
- PS-I-11.1d Maintain and update the City's Emergency Response Plan on a regular basis, designating emergency shelters and evacuation routes

PS-I-11.1e Evaluate evacuation routes for their capacity, safety, and viability under a range of emergency scenarios.

4.14.4 CUMULATIVE IMPACTS

As described under Impact 4.14-1, the Circulation Element developed as part of the General Plan Update contains policies and implementation measures that support access to and the performance of transit, bicycle, and pedestrian facilities. Measure C-I-8.1e of the Circulation Element specifically states that facilities for bicycle travel (Class I bike/multiuse paths, Class II bike lanes, Class III bike routes, and Class IV bikeways) shall be provided to complete a continuous system, consistent with the Countywide Bicycle & Pedestrian Plan. Measures C-I-10.1a and C-I-10.1b encourages working with CCTA to continue to support and expand transit routes that serve regional destinations within the City and support and expand transit loops to support local and regional medical centers, schools, and employment designations. Measure C-I-10.1e encourages coordination with partner agencies to implement regional transit solutions as part of the MTC SB 375 Sustainable Communities Strategy, and the City's Climate Action Plan. Therefore, the General Plan Update's cumulative impact is considered **less than significant** in this regard.

Table 4.14-3 compares the VMT per capita and VMT per employee associated with proposed General Plan implementation with the threshold. As described under Impact 4.14-2, the 2040 Cumulative Condition with the proposed General Plan Update would result in a total Martinez per capita VMT of 14.8, which slightly exceeds the per capita VMT threshold of 14.7 (15% below the County average of 17.3). As such, the VMT generated by the growth in residential development associated with the proposed General Plan under cumulative conditions would constitute a **cumulatively considerable and significant and unavoidable impact**.

As described under Impact 4.14-2, the 2040 Cumulative Condition with the proposed General Plan Update would result in a total Martinez per employee VMT of 18.3, which exceeds the per employee VMT threshold of 12.7 (15% below the County average of 14.9). The VMT generated by the employment development associated with the proposed General Plan Update would constitute a **cumulatively considerable and significant and unavoidable impact**.

The updated General Plan includes policies designed to reduce vehicle travel and vehicle miles traveled. The Circulation Element addresses providing adequate pedestrian, bicycle, and transit facilities and opportunities, promoting non-vehicle travel modes, and ensuring regional coordination on trip and VMT reduction efforts. General Plan Update policies and implementation measures that contribute to VMT reductions are identified in Impact 4.14-2, and also in Section 4.7 (Greenhouse Gas Emissions, Climate Change & Energy). These policies and actions would help to reduce the severity of these significant impacts to the greatest extent feasible. However, this impact would remain **cumulatively considerable and significant and unavoidable**.

As described under Impact 4.14-3, the types of uses included as part of the General Plan Update are generally similar to existing and surrounding uses and thereby are compatible with the existing uses in the Study Area and in the surrounding area. In addition, the Circulation Element developed as

part of the General Plan Update contains policies in support of roadway network safety and reducing design hazards. Additionally, as described under Impact 4.14-4, as part of the site plan and design review process, future development projects would be reviewed for adequate access as well as consistency with adopted emergency and evacuation plans among many other environmental issues in order to ensure the safety of City residents and the physical environment. In addition, the Public Safety and Circulation Elements developed as part of the General Plan Update contains policies in support of emergency access along local roads. Thus, the General Plan Update would not cumulatively contribute to an increase in hazards or inadequate emergency access and this would be considered a **less than significant impact**.

4.14.5 SIGNIFICANT UNAVOIDABLE IMPACTS

Impacts to transportation and circulation, specific to the inconsistency with CEQA Guidelines Section 15064.3, subdivision (a), associated with the implementation of the General Plan Update would be **significant and unavoidable** for project and cumulative conditions.

4.14.6 REFERENCES

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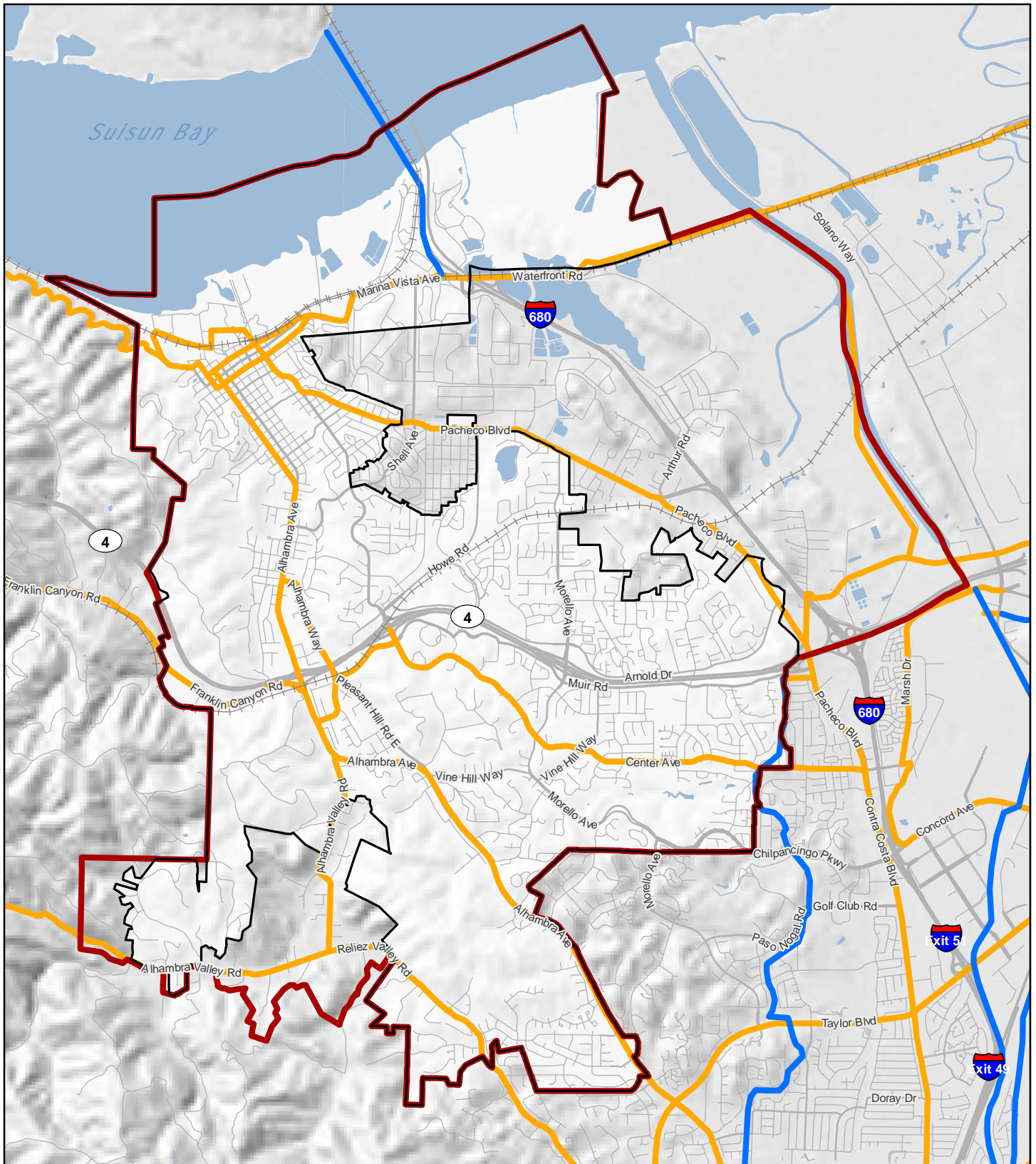


CITY OF MARTINEZ

Figure 4.14-1. Transit Service

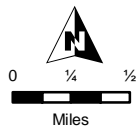
Source: The Central Contra Costa Transit Authority, County Connection System Map, June 6, 2021. Map date: July 19, 2022.

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LEGEND

- Martinez City Limits
- Martinez Sphere of Influence
- Existing Low Stress Bikeway
- Proposed Low Stress Bikeway



CITY OF MARTINEZ

Figure 4.14-2. Existing and Proposed Bicycle Facilities

Sources: Contra Costa County GIS; City of Martinez; Contra Costa County Countywide Bicycle and Pedestrian Plan, July 2018. Map date: July 19, 2022.

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This section provides a background discussion of the utility systems in Martinez including water supplies, wastewater, storm drainage, and solid waste. This section is organized with an existing setting, regulatory setting, and impact analysis.

One comment was received during the 30 day NOP comment period related to this environmental topic. The comment pertained to potential impacts on available water resources and water supplies. All comments received on the during the 30-day Notice of Preparation comment period are included in Appendix A of this Draft EIR.

4.15.1 WATER

Key Terms

Acre feet (af): The volume of one acre of water to a depth of one foot. Each acre-foot of water is equal to approximately 325,851.4 gallons.

BGS: Below ground surface

GPD: Gallons per day

GPM: Gallons per minute

MG: Million gallons

MGD: Million gallons per day

Surface water: Water collected on the ground or from a stream, river, lake, wetland, or ocean. Surface water is replenished naturally through precipitation, but is lost naturally through evaporation and seepage into soil.

WATER SUPPLIES

The City receives untreated imported water from Contra Costa Water District (CCWD) via the Contra Costa Canal, which is part of the Central Valley Project developed by the U.S. Bureau of Reclamation. The water is sold to Martinez based on CCWD's rate structure per unit of water delivered. This represents 100 percent of the water supply for the City's water service area. The City water service boundaries do not align with the City limits. The water service area extends outside the City limits into unincorporated Contra Costa County and the City of Pleasant Hill. Areas within the City that are located outside of the water service area are served by CCWD.

CCWD pumps water from four intakes in the Sacramento-San Joaquin Delta. The backbone of CCWD's water conveyance system is the 48-mile Contra Costa Canal, which starts at Rock Slough intake and ends at the Martinez Reservoir. Martinez Reservoir is an open, earthen reservoir with an estimated capacity of 79.6 MG. The raw water is conveyed from the reservoir to the City's water treatment plant where it is treated to Title 22 drinking water standards prior to being pumped into the City's distribution system. If the treatment plant cannot produce water due to an emergency

4.15 UTILITIES AND SERVICE SYSTEMS

condition, treated water can be supplied into the City's water distribution system from CCWD through two interties.

SURFACE WATER

Martinez's surface water supply is from the San Joaquin River Delta. As stated, the City of Martinez purchases untreated water from CCWD for use within the City of Martinez Water Department service area. CCWD supplies treated water to the remaining portion of the City (outside of the City's service area). CCWD pumps water from four intakes in the Sacramento-San Joaquin Delta. The intakes are located at Rock Slough, on Old River, on Victoria Canal and at Mallard Slough. The backbone of the District's water conveyance system is the 48-mile Contra Costa Canal, which starts at Rock Slough and ends at the Martinez Reservoir. The CCWD obtains the water that it sends to the City of Martinez through the US Bureau of Reclamation (USBR) Central Valley Project (CVP). The untreated water is conveyed to Martinez through the Contra Costa Canal (Canal). Treated water is treated at the Bollman Water Treatment Plant and pumped through a pipeline system to CCWD's treated water system customers.

RECYCLED WATER SUPPLIES

Central Contra Costa Sanitary District (Central San) provides recycled water to its residential customers free of charge and has a recycled water hydrant truck filling program. The recycled water is available for pick-up at the Household Hazardous Waste Collection Facility in Martinez. The recycled water can be used residentially to hand-water lawns, gardens, and landscaping. The recycled water can be used to fill water hydrant trucks for use in dust control, soil compaction, landscape irrigation, and sewer flushing. The City does not currently supply any recycled water and there are not currently any recycled water projects planned. However, wastewater generated from the water service area is recycled and used outside the water service area boundaries. Recycled water may offset some of the treated water demand in the future.

WATER DISTRIBUTION AND TREATMENT SYSTEM

CONTRA COSTA WATER DISTRICT (CCWD) SERVICE AREA

Discussion of CCWD's water distribution and treatment system is based on information provided in the Contra Costa Water District Urban Water Management Plan (UWMP) (CCWD, 2021).

CCWD's current total service area (boundary) encompasses most of central and northeastern Contra Costa County, a total area of more than 140,000 acres, including the Los Vaqueros watershed area of approximately 19,100 acres. Water is provided to municipal, residential, commercial, industrial, and landscape irrigation customers. Untreated water municipal customers include the Diablo Water District (DWD) and the cities of Antioch, Pittsburg, and Martinez. Treated water is distributed to individual retail customers in the Treated Water Service Area (TWSA) which includes the communities and cities of Clayton, Clyde, Concord, Pacheco, and Port Costa, and portions of Martinez, Pleasant Hill, and Walnut Creek. In addition, CCWD treats and delivers water wholesale to the City of Brentwood, Golden State Water Company (serving Bay Point), and the City of Antioch. Figure 4.15-1 shows the CCWD's total service area boundary, as well as its retail TWSA boundary.

Untreated Water Conveyance

CCWD conveys untreated water to both retail and wholesale municipal customers, as well as industrial and irrigation customers. Antioch, Martinez, and Pittsburg operate their own water treatment plants and treated water distribution systems.

CCWD's primary conveyance facility for its untreated water supply is the Canal, which conveys water diverted from the Delta at the Rock Slough intake for deliveries throughout CCWD's service area. The Canal also has the ability to receive water from the Old River intake, the Middle River intake on Victoria Canal, and Los Vaqueros Reservoir (described below) and the Mallard Slough intake. The 48-mile long Canal originates at Rock Slough and traverses through cities and communities in northeastern and central county areas, terminating at the Martinez Reservoir. Since 2009, CCWD has completed a series of projects to replace the first four miles of the Canal, which was previously an earthen channel, to address various vulnerabilities including water quality degradation and potential flooding. With the completion of Segment 4 in 2019, approximately 13,500 feet of the Canal has been enclosed in pipe. The final and remaining segment (Segment 5) is anticipated to begin construction within the next 5 years.

Untreated Water Reservoirs

CCWD has four untreated water storage reservoirs (Los Vaqueros, Contra Loma, Mallard, and Martinez) with a total storage capacity of approximately 165,000 AF.

The Los Vaqueros Reservoir has a capacity of up to 160,000 AF and is located eight miles south of Brentwood. The reservoir stores higher quality Delta water for blending with the Delta supply during dry periods when salinity levels typically increase. Besides improving water quality for CCWD's customers, the reservoir stores water for emergency use by providing a minimum of 70,000 AF of emergency supply in wetter years and 44,000 AF in dry years that could be used during an extreme drought or a catastrophic interruption of CCWD's Delta supplies. Additionally, the reservoir provides environmental benefits including reduced impacts on Delta fisheries.

Contra Loma Reservoir is used primarily as a regulating reservoir for peak demands on the Canal, short-term (one to seven days) supplies, and for emergency storage. The reservoir has an operating capacity of approximately 2,100 AF. Mallard Reservoir provides water to Bollman Water Treatment Plant (WTP) and is used as a storage facility for emergency use, flow regulation, and blending of the different sources of supply. The reservoir has a usable capacity of approximately 3,100 AF.

Martinez Reservoir, located in Martinez, is at the terminus of the Canal and the Shortcut Pipeline, and has an available capacity of approximately 276 AF. This water is primarily used by the City of Martinez for its treatment plant and for the Martinez Refining Company (formerly Shell Oil Refinery). It also provides regulating storage to capture flows from Canal operations.

Water Treatment and Conveyance Facilities

CCWD operates three water treatment facilities, the 75 MGD Bollman WTP, the 50 MGD Randall-Bold WTP, and the 16.5 MGD City of Brentwood WTP. The Bollman WTP serves CCWD's treated water customers in Central County, and under special agreement, provides treated water to Golden

4.15 UTILITIES AND SERVICE SYSTEMS

State Water Company (GSWC) for the community of Bay Point. The 75 MGD Bollman WTP treatment process includes coagulation, flocculation, sedimentation, filtration, ozonation, and disinfection.

The Bollman WTP is CCWD's primary water treatment facility providing treated water to the central County treated water service area, which includes a portion of the City of Martinez served directly by CCWD. The current permitted capacity of the plant is 75 mgd. Water is pumped from the plant to the eight pressure zone distribution system through approximately 800 miles of pipeline ranging in diameter from two to 66 inches.

Untreated water from the Canal is also treated by non-CCWD treatment plants in the cities of Antioch, Pittsburg, and Martinez for delivery to their respective customers. The Martinez WTP is owned and operated by the City of Martinez.

CITY OF MARTINEZ WATER SERVICE AREA

The City's water utility operates treatment, storage, pumping, transmission, distribution and fire protection facilities which deliver water for use by customers located inside the City's water service area. The water service area encompasses approximately 10,300 acres. The City water service area boundaries and City limits are shown on Figure 4.15-1.

The City's Public Works Department operates domestic water treatment, storage, pumping, transmission, distribution, and fire protection facilities for the delivery of potable water to customers located within the water service area. The City's Water Superintendent manages the treatment plant, pump stations, and reservoirs and is responsible for maintaining the water distribution system and meter reading. The City Engineer is responsible for the design and construction of water system capital improvement projects.

The City currently has six primary pump stations that supply water to four distribution system pressure zones; and eleven ground-level treated water storage reservoirs, which have a total capacity of 9.97 MG. The clearwell storage at the water treatment plant provides an additional 0.75 MG. Storage is primarily used for meeting diurnal fluctuations in demand; providing water for fire protection; and providing water during emergency outages of normal water supply facilities, i.e. pump stations and the treatment plant.

Reservoirs

The City currently operates eleven ground level treated water storage reservoirs, which have a total capacity of 10 MG. The clearwell storage at the water treatment plant provides an additional 0.75 MG. The reservoirs are located throughout each of the four pressure zones in the service area to serve the different elevations within the City. There are three reservoirs each in the two lowest and largest pressure zones, Zones 1 and 2. Two smaller reservoirs each in Zones 3 and 4 provide service for those areas. Zone 2A has one reservoir.

Storage is primarily used for (1) meeting diurnal fluctuations in demand, (2) providing water to meet fire demands, and (3) providing water during emergencies such as pump failure. The water level in each storage tank will rise and fall a few feet during the course of each day as demand for water changes. The daily variation during maximum day demands is about five to 10 percent of the total

storage volume. The storage can also serve overnight demands during low demand periods, allowing the treatment plant to be shut down for maintenance. The storage also provides surge relief.

Pipelines and Valves

The City's distribution system contains about 100 miles of pipeline ranging from two-inch diameter to 18-inch diameter. Approximately 12.5 miles of pipeline are 14- to 18-inch diameter transmission mains. Most of the distribution system within the service area is adequately served by the transmission mains which provide service to the distribution network loops.

Zone valves are provided in system pipelines to separate the high and low pressure zones. In some areas, dual zone valves are provided to prevent accidental over pressurizing of the lower pressure system when a zone valve is mistakenly opened. However, most zone valves are a single valve within a pipeline.

WATER SUPPLY AND DEMAND

CCWD

CCWD's population had approximately 500,200 residents in 2020. CCWD's water use was 117,110 af in 2020, which included 33,290 af of wholesale Municipal Raw Water, 5,050 af of Municipal Treated Water, 63,610 af of retail water use, 12,200 af in system losses and evaporation, and 2,960 af in use met by Muni Local Supplies (CCWD, 2021; refer to Table 4-1W).

CCWD's water supply reliability assessment presented in the 2020 UWMP considers the total availability of all water supplies during normal, single-dry, and multiple dry years, defined in the Department of Water Resources (DWR) Guidebook as follows:

- Normal Year: Defined as the year that most closely represents the average water supply available.
- Single-Dry Year: Defined as the year that represents the lowest water supply available.
- Multiple-Dry Year: Defined as the driest historical consecutive 5-year period for water supply available.

As described in the 2020 UWMP through year 2040 the District can expect to meet 100 percent of demand in normal through Multi-Year Drought, Year 2, 90 percent in Multi-Year Drought, Year 3, and 85 percent in Multi-Year Drought, Year 4 and 5.

The water supply reliability goal approved by CCWD's Board of Directors is to meet 100 percent of demand in normal years and at least 85 percent of demand during drought conditions. The remaining 15 percent would be met by a combination of short-term water purchases and a short-term conservation program.

CITY OF MARTINEZ WATER SERVICE AREA

In 2020, the City provided 28,095 customers within the service area with 3,823 AFY of metered water. Usage may fluctuate based on drought conditions and voluntary and mandatory rationing, but remains substantially similar to 2010 and 2015 water usage as shown in Table 4.15-1.

4.15 UTILITIES AND SERVICE SYSTEMS

The City receives untreated imported water from CCWD. Since a contract does not exist between CCWD and the City of Martinez for a fixed delivery amount, water supply has been set equal to projected demand. During periods of drought, CCWD has established supply limits based on a percentage of the demand from the previous years.

TABLE 4.15-1: HISTORICAL WATER USE BY SECTOR

Use Type	2010	2015	2020
Total Residential (AFY)	2,733	2,142	2,742
Total Commercial/Industrial/Irrigation (AFY)	1,104	1,069	1,081
Total Demand (AFY)	3,837	3,211	3,823

SOURCE: CITY OF MARTINEZ UWMP TABLE 4-1B 2020.

Water Demands

Water demands within the City's service area are dependent on many factors such as local climate conditions, population, demographics, land use, and economics. Based on data from the Association of Bay Area Governments (ABAG) and the California Department of Finance, the City's water service area population was 28,095 in 2020. California's urban water demand has been largely shaped by the efforts to comply with a 2010 water conservation law known as Senate Bill x7-7 (SB X7-7). This law required California water suppliers to reduce water demand by 20 percent (from a historical baseline) by 2020. The City has been engaged in reducing water use in its service area, in coordination with CCWD, to meet the final 2020 water use target through conservation and Demand Management Measures.

Total water demand, excluding system losses, decreased from 3,837 AFY in 2010 to 3,211 AFY in 2015; then increased to 3,823 AFY in 2020, similar to the 2010 demand. Residential and total use increased in 2020 in comparison to the previous two years which would be expected as a result of stay-at-home orders. The City's primary water use sector is residential, accounting for approximately 70 percent of the total water demand, with single family residential water use accounting for approximately 55 to 61 percent of total water demand.

REGULATORY SETTING – WATER SUPPLIES

STATE

California Department of Health Services

The Department of Health Services, Division of Drinking Water and Environmental Management, oversees the Drinking Water Program. The Drinking Water Program regulates public water systems and certifies drinking water treatment and distribution operators. It provides support for small water systems and for improving their technical, managerial, and financial capacity. It provides subsidized funding for water system improvements under the State Revolving Fund (SRF) and Proposition 50 programs. The Drinking Water Program also oversees water recycling projects, permits water treatment devices, supports and promotes water system security, and oversees the Drinking Water Treatment and Research Fund for MTBE and other oxygenates.

California Code of Regulations

California Code of Regulations (CCR) Title 22, Chapter 15, Article 20 requires all public water systems to prepare a Consumer Confidence Report for distribution to its customers and to the Department of Health Services. The Consumer Confidence Report provides information regarding the quality of potable water provided by the water system. It includes information on the sources of the water, any detected contaminants in the water, the maximum contaminants levels set by regulation, violations and actions taken to correct them, and opportunities for public participation in decisions that may affect the quality of the water provided.

Urban Water Management Planning Act

The Urban Water Management Planning Act has as its objectives the management of urban water demands and the efficient use of urban water. Under its provisions, every urban water supplier is required to prepare and adopt an UWMP. An “urban water supplier” is a public or private water supplier that provides water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 af of water annually. The plan must identify and quantify the existing and planned sources of water available to the supplier, quantify the projected water use for a period of 20 years, and describe the supplier’s water demand management measures. The urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The DWR must receive a copy of an adopted UWMP.

Senate Bill (SB) 610 and Assembly Bill (AB) 901

The State Legislature passed SB 610 and AB 901 in 2001. Both measures modified the Urban Water Management Planning Act.

SB 610 requires additional information in an UWMP if groundwater is identified as a source of water available to an urban water supplier. It also requires that the plan include a description of all water supply projects and programs that may be undertaken to meet total projected water use. SB 610 requires a city or county that determines a project is subject to CEQA to identify any public water system that may supply water to the project and to request identified public water systems to prepare a specified water supply assessment. The assessment must include, among other information, an identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and water received in prior years pursuant to these entitlements, rights, and contracts.

AB 901 requires an UWMP to include information, to the extent practicable, relating to the quality of existing sources of water available to an urban water supplier over given time periods. AB 901 also requires information on the manner in which water quality affects water management strategies and supply reliability. The bill requires a plan to describe plans to supplement a water source that may not be available at a consistent level of use, to the extent practicable. Additional findings and declarations relating to water quality are required.

Senate Bill (SB) 221

SB 221 adds Government Code Section 66455.3, requiring that the local water agency be sent a copy of any proposed residential subdivision of more than 500 dwelling units within five days of the subdivision application being accepted as complete for processing by the city or county. It also adds Government Code Section 66473.7, establishing detailed requirements for establishing whether a “sufficient water supply” exists to support any proposed residential subdivisions of more than 500 dwellings, including any such subdivision involving a development agreement. When approving a qualifying subdivision tentative map, the city or county must include a condition requiring availability of a sufficient water supply. The applicable public water system must provide proof of availability. If there is no public water system, the city or county must undertake the analysis described in Government Code Section 66473.7. The analysis must include consideration of effects on other users of water and groundwater.

LOCAL

City of Martinez Urban Water Management Plan 2020 Update

The purpose of the UWMP 2020 Update is to ensure efficient use of urban water supplies in the City of Martinez and promote conservation. The UWMP discusses not only the availability of water but also water use, reclamation, and water conservation activities. The UWMP complies with the Urban Water Management Planning Act (California Water Code [CWC] Section 10610 et seq.), the Water Conservation Act of 2009 (CWC Section 10608), and the 20x2020 Water Conservation Plan, which are being implemented by the DWR.

Contra Costa Water District UWMP

The CCWD UWMP 2020 Update presents information on the District’s supply and demand forecasts, conservation programs, water shortage contingency planning, water transfers, and recycled water opportunities to the year 2045. The UWMP also includes a description of the plan adoption, public coordination, and planning coordination activities. The UWMP summarizes the status of the District’s water demand management measures (also known as best management practices or BMPs) and includes the new requirements of the Water Conservation Bill of 2009 (SB X7-7), which was passed in 2009 and requires an evaluation of baseline per capita water use and identification of interim and 2020 per capita water use targets to achieve a 20 percent per capita water use reduction by 2020. Completion of a UWMP is required in order for a water supplier to be eligible for DWR administered state grants and loans and drought assistance. It is also a source of information for Water Supply Assessments (SB 610) and Written Verifications of Water Supply (SB 221). The CCWD UWMP meets all requirements of the California Urban Water Management Planning Act.

Chapter 21.18 - Water and Sewers Section 21.18.020 - Water Supply.

The Martinez municipal Code requires that a subdivider shall install adequate water mains connecting with the City water supply system which can serve each lot, in accord with plans approved by the City Engineer. The water mains shall be installed to the satisfaction of the City Engineer.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project may have a significant impact on the environment associated with utilities and service systems if it would:

- Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

IMPACTS AND MITIGATION MEASURES

Impact 4.15-1: General Plan implementation could result in insufficient water supplies available to serve the City and reasonably foreseeable future development during normal, dry and multiple dry years (Less than Significant)

Implementation of the General Plan Update would result in increased population and employment growth within the Study Area, and a corresponding increase in the demand for additional water supplies.

As described in Chapter 2.0, the General Plan is expected to accommodate up to 2,060 new residential dwelling units and up to 2,818,060 square feet of non-residential building space within the City limits and Sphere of Influence (SOI) at buildout. This new growth within the city limits and SOI would increase the city's population by approximately 5,150 residents. The full development of the new non-residential uses would increase the employment Martinez by approximately 2,564 employees.

Water users within the Martinez service area include single-family residences, apartments, condominiums, commercial uses, industrial uses, business park uses, government uses, miscellaneous uses, landscape irrigation, pools, and mobile home customers.

CCWD SERVICE AREA

CCWD's overall service area population had approximately 500,000 residents in 2020 and is projected to reach approximately 612,810 in 2035. Growth of CCWD's treated water service area population is projected to increase from 205,400 in 2020 to 251,350 in 2035.

Conservation has lowered current water use levels and will reduce the need for future supplies. CCWD has successfully maintained an effective water conservation program since 1988, resulting in a decrease in water demand under current conditions compared to the early 1990s, despite an increase in population.

The CCWD has developed overall system-wide supply and demand projections, including both treated and untreated water, through 2045. CCWD's growth projections anticipate that the Martinez population will increase from 35,620 in 2020 to 38,100 in 2035.

4.15 UTILITIES AND SERVICE SYSTEMS

As described in the UWMP, CCWD’s supply would exceed demand during normal year and single dry year conditions. During multi-year droughts, CCWD would experience a supply deficit. The deficits are not projected to exceed 15 percent of demand. The UWMP indicates that potential supply shortfalls will be met through a combination of short-term conservation program and short-term water purchases.

CCWD’s water supply reliability goal is to meet 100 percent of demand in normal years and a minimum of 85 percent of demand during dry conditions. CCWD’s ability to meet this goal is primarily due to the success of past water use efficiency measures, the reliability of the existing contract for CVP water, and long-term water sales agreement with East Contra Costa Irrigation District (ECCID) as well as the investment in storage in Los Vaqueros Reservoir. In future years, multiple-dry year conditions may result in supply shortfalls of up to approximately 26,400 AF under 2045 Multi-Dry Year 5 Year type (15 percent of demand). Any potential supply shortfalls experienced during dry year conditions will be met through a combination of a short-term conservation program and/or short-term water purchases, consistent with CCWD’s contingency planning efforts.

TABLE 4.15-2: PROJECTED POTABLE DEMANDS AND SUPPLIES (ACRE FEET/YEAR) - CCWD

	2025	2030	2035	2040	2045
Total Demand	147,300	157,300	165,000	171,300	175,900
Supply – Normal Year	216,600	235,500	240,600	242,000	243,000
<i>Deficit</i>	0	0	0	0	0
Supply – Multiple Dry Year, Third Year Supply	148,000	161,700	165,300	166,400	167,100
<i>Deficit</i>	0	0	0	4,900	8,800
Supply – Multiple Dry Year, Fourth Year Supply	139,100	152,100	155,500	156,600	157,300
<i>Deficit</i>	8,200	5,200	9,500	14,700	18,600

SOURCE: CONTRA COSTA WATER DISTRICT UWMP 2020 UPDATE TABLE 1-5.

CITY OF MARTINEZ WATER SERVICE AREA

The City receives untreated imported water from CCWD. In 2020, the City directly provided water to 9,970 water service accounts. Of the 9,970 City water service connections, 9,274 are residential connections (88.4%), of which 8,817 are single family (95.1%) and 457 are multi-family (4.9%).

As described in the UWMP, historical metered and billed water use show total water demand, excluding system losses, decreased from 3,837 AFY in 2010 to 3,211 AFY in 2015; then increased to 3,823 AFY in 2020, similar to the 2010 demand.

The City’s 2020 UWMP includes a projection of annual water use at future year intervals. The City’s projected average annual use in 2025 is 4,460 AFY; by 2035 future water use is projected to decrease to 4,070 AFY during normal water years.

As documented in the City’s 2020 UWMP, water supply within the City water service area is expected to meet water demand through 2045 with the implementation of water contingency planning efforts. However, as noted previously water deliveries would be reduced during multiple dry years from CCWD.

FUTURE GROWTH

Build-out of the City of Martinez General Plan Update would result in up to 2,060 new residential dwelling units and up to 2,818,060 square feet of non-residential building space. The full development of the new non-residential uses would increase the employment in Martinez by approximately 2,564 employees. Areas to the southwest of current City limits are already incorporated into the City water service area. However, undeveloped areas to the northeast that are within the City's SOI, are currently outside of the City's incorporated area, and are not currently served by a water district or agency. Water provision to these areas would be determined as part of any future annexation plans. The projected water growth associated with the General Plan Update anticipates development associated with a 2035 buildout year and includes all areas of the City that are identified for future development allowed under the Proposed General Plan Land Use Map and its associated levels of growth. Prior to annexation of unserved areas into a water services district, area-specific demands for water supply would need to be evaluated based on the existing system capacity, necessary infrastructure improvements to maintain acceptable levels of service, and the means to fund the improvements.

The City's and CCWD's UWMP's anticipate population growth that is lower than what may occur under the proposed General Plan Update. Development under the General Plan Update would result in an increase of up to 5,150 new residents, for a total population of approximately 42,058. The CCWD UWMP has anticipated that City's water service area population was 28,095 in 2020 and is projected to increase to 29,867 by 2035. Additionally, the CCWD anticipates that the overall CCWD Martinez service area population will increase to 38,100 by 2035.

While buildout of the General Plan would likely extend beyond 2035, buildout growth could exceed the growth anticipated by the CCWD in 2035 by approximately 10 percent. Further, both the City, and CCWD UWMPs anticipate that supplies may not be adequate to meet demand in multiple dry years, however the City's UWMP currently does not identify a shortfall due to Water Shortage Contingency Planning efforts. Additionally, CCWD's UWMP indicates that potential supply shortfalls will be met through a combination of short-term conservation program and short-term water purchases.

WATER SHORTAGE CONTINGENCY PLANNING

Preparations for water shortages generally include two components: (1) identification of additional supply sources in case of water shortage, and (2) management of demands from existing customers when shortages occur.

The City plans for water supply shortages caused by drought where CCWD limits supply or by emergency failures in conveyance or treatment facilities. The greatest water shortage experienced by the City occurred in 1977 when CCWD imposed a 30 percent supply restriction to the City due to the drought. The City's water shortage contingency planning takes into account potential supply shortages up to a 50 percent reduction in supply with greater supply shortages addressed through the Emergency Response Plan (ERP).

CCWD's Water Shortage Contingency Plan addresses water management practices for drought and other supply interruption conditions. The Water Shortage Contingency Plan identifies four demand

4.15 UTILITIES AND SERVICE SYSTEMS

reduction stages. The first and second stages, water alert and water warning, involve voluntary customer demand reduction measures. The third and fourth stages, water emergency and water crisis, impose mandatory water management measures, including allotments and excess use charges. Given the depth of contingency planning that the CCWD and City has developed for water supply shortages in the event of drought conditions, the City would be prepared to reduce water demand to match supply conditions.

For future qualifying projects, a Water Supply Assessment would be required pursuant to SB 610 for inclusion in the project's CEQA analysis. The Water Supply Assessment discerns whether the expected demand from the development being proposed has been accounted for in the forecasted demands in the most recent UWMP. A Written Verification of Supply per SB 221 is prepared as a condition of approval for a subdivision map of 500 units or more. Considered a fail-safe mechanism to provide sufficient evidence that adequate water supplies are available before construction begins, the Written Verification of Supply is also prepared/adopted by the water supplier and approved by the land use authority. Depending on the project, one or both of these analyses may be required. Development proposals that may not warrant a Water Supply Assessment and/or Written Verification of Supply, but meet the definition of a project under CEQA, would still require an analysis of sufficient water supplies in the CEQA process.

In addition, the proposed General Plan Update includes a range of policies and implementation measures designed to ensure an adequate water supply for development and to minimize the potential adverse effects of increased water use. Policies such as PCU-P-1.6 promotes the use of recycled water and drought resistant, native, and climate resilient plants for City parks and civic spaces. PCU-P-7.1, 7.2, and 7.3 encourage the efficient use of water to meet demand from existing and future residents. Policies OSC-P-6.1, 6.2, 6.3, and 6.4 encourage sustainable development and operation of buildings as they pertain to conserving water. The proposed Public Safety Element Policy PS-P-6.4 prioritizes development in areas with sufficient water supply infrastructure. Policy PS-P-6.5 requires planning for adequate future water supplies.

The proposed General Plan Update includes a comprehensive set of goals, policies and implementation measures to promote water conservation and an adequate and reliable source of clean potable water. The policies and implementation measures listed below would assist in ensuring that adequate water supplies are available to serve new growth projected under the proposed General Plan Update. Future potential shortfalls during multiple dry years are not anticipated due to water shortage contingency planning efforts. Future updates to the UWMP will be required to address additional development potential under the proposed General Plan Update. Through implementation of existing federal, State, and local regulations and the General Plan Update goals, policies, and implementation measures, the environmental impacts to water supplies would **be less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS**Parks and Community Facilities Element*****Policies***

PCU-P-1.6 Promote the use of recycled water and drought resistant, native, and climate resilient plants for City parks and civic spaces.

Open Space and Conservation Element***Policies***

OSC-P-6.1 Reduce energy, water, and resource consumption wherever possible as they pertain to buildings and construction.

OSC-P-6.2 Promote and encourage compliance with sustainable building standards.

OSC-P-6.3 Strongly encourage landscaping that promotes more efficient use of water and energy including an evaluation of xeriscaping (no/low water use landscaping plants), native plants in landscaping, drip irrigation, and irrigation controls.

OSC-P-6.4 Encourage existing buildings and new construction to incorporate renewable energy and energy- and water-efficient technologies.

Implementation Measures

OSC-I-6.1b Institute a water conservation program for all City facilities to include such features as installation of waterless urinals and low flow toilets.

Circulation Element***Goals***

PCU-G-10 Provide adequate public infrastructure and services to meet the needs of existing and future development.

Policies

PCU-P-7.1 Continue working with CCWD, CCCSD, SD-6, and MVSD to ensure the demand can be met for existing and future residents.

PCU-P-7.2 Support the efficient use of water, encourage conservation of water by updating the water conservation ordinances in Martinez, and reduce water use in public facilities by developing policies and schedules for retrofitting existing facilities with water-saving irrigation systems and upgrading plumbing as facilities are remodeled.

PCU-P-7.3 Work with property owners to increase awareness and reduce water use through public education.

Implementation Measures

- PCU-I-7.3a Reduce water consumption where possible through the use of artificial turf, native plants, drought-tolerant landscaping, water conservation technology (such as efficient timers, and water heads), and possible use of recycled water in parks and recreation facilities.
- PCU-I-7.3b Proactively work with the Contra Costa Water District for the installation of recycled water distribution infrastructure.

Public Safety Element

Policies

- PS-P-6.4 Prioritize development in areas with sufficient water supply infrastructure and road networks that provide adequate fire equipment access and multiple evacuation routes.
- PS-P-6.5 Maintain existing water supply infrastructure for firefighting and plan for adequate future water supplies.
- PS-P-6.6 Establish mitigations for properties in Very High Fire Hazard Safety Zones with restricted and single points of access including parking restrictions and investigating the feasibility of establishing special assessment districts to improve road capacity, and adequate water supply.

Impact 4.15-2: General Plan implementation would not require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (Less than Significant)

Development and growth in the City under the proposed General Plan Update would result in increased demand for water supplies, including water conveyance and treatment infrastructure.

As described under Impact 4.15-1, the projected 2035 buildout water supplies would not be adequate to meet demand that would be generated by full buildout of the General Plan Update under multiple dry year conditions. As such, implementation and buildout of the General Plan Update could result in the need to construct or expand water supply and treatment facilities beyond what has been described and accounted for in the City's relevant water plans, which include the City's 2020 UWMP and the CCWD 2020 UWMP. However, water reductions through contingency planning efforts identified previously are identified as the strategy conserve water to meet water demands through 2045.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

Future development in the Study Area would be required to connect to existing water distribution infrastructure in the vicinity of each site, pay the applicable water system connection fees, and pay the applicable water usage rates. Future projects would be required to implement site specific and limited off-site improvements to the water distribution system in order to connect new project sites to the City's existing water infrastructure network. The specific impacts of providing new and expanded water distribution infrastructure cannot be determined at this time, as the General Plan Update does not propose any specific development projects and the source of additional water supply (e.g., groundwater, surface water, or recycled water) as well as the location and specifics of water infrastructure improvements will be determined with subsequent water plan and CIP updates as well as the planning process for future development projects. It is anticipated that any future improvements to the existing water distribution infrastructure would be primarily provided on sites with land use designations that allow for urbanized land uses and development of public facilities, and the environmental impacts of constructing and operating the new water distribution infrastructure would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the proposed General Plan Update. These impacts are described in the relevant chapters (Chapters 4.1 through 4.16) of this Draft EIR. This Draft EIR addresses the potential impacts of development that may occur under the proposed General Plan Update, including residential, commercial, office, industrial, public facilities, and a range of other uses. There are no additional environmental impacts, apart from those disclosed in the relevant chapters of this EIR, which are anticipated to occur. Therefore, this impact is considered **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Parks and Community Facilities Element

Policies

PCU-P-1.6 Promote the use of recycled water and drought resistant, native, and climate resilient plants for City parks and civic spaces.

Open Space and Conservation Element

Policies

OSC-P-6.1 Reduce energy, water, and resource consumption wherever possible as they pertain to buildings and construction.

OSC-P-6.2 Promote and encourage compliance with sustainable building standards.

OSC-P-6.3 Strongly encourage landscaping that promotes more efficient use of water and energy including an evaluation of xeriscaping (no/low water use landscaping plants), native plants in landscaping, drip irrigation, and irrigation controls.

OSC-P-6.4 Encourage existing buildings and new construction to incorporate renewable energy and energy- and water-efficient technologies.

Implementation Measures

4.15 UTILITIES AND SERVICE SYSTEMS

OSC-I-6.1b Institute a water conservation program for all City facilities to include such features as installation of waterless urinals and low flow toilets.

Circulation Element

Policies

PCU-P-7.1 Continue working with CCWD, CCCSD, SD-6, and MVSD to ensure the demand can be met for existing and future residents.

PCU-P-7.2 Support the efficient use of water, encourage conservation of water by updating the water conservation ordinances in Martinez, and reduce water use in public facilities by developing policies and schedules for retrofitting existing facilities with water-saving irrigation systems and upgrading plumbing as facilities are remodeled.

PCU-P-7.3 Work with property owners to increase awareness and reduce water use through public education.

PCU-P-10.2 Require all development projects to mitigate their infrastructure service impacts or demonstrate that the infrastructure, public services, and utilities serving the City can accommodate the increased demand for services, and that service levels for existing users will not be degraded or impaired.

Implementation Measures

PCU-I-7.3a Reduce water consumption where possible through the use of artificial turf, native plants, drought-tolerant landscaping, water conservation technology (such as efficient timers, and water heads), and possible use of recycled water in parks and recreation facilities.

PCU-I-7.3b Proactively work with the Contra Costa Water District for the installation of recycled water distribution infrastructure.

PCU-I-10.1a Periodically review and update the various City master plans for the provision and/or extension of public services to serve existing and future development. These plans include, but are not limited to, the Urban Water Management Plan and the Capital Improvement Program.

PCU-I-10.1b Coordinate with the Contra Costa Water District (CCWD) to ensure that the CCWD Urban Water Management Plan addresses City growth and demand for treated and untreated water supply.

PCU-I-10.1c As part of the development review process, determine the potential impacts of development and infrastructure projects on public infrastructure, and ensure that new development contributes its fair share toward necessary on and off-site infrastructure.

PCU-I-10.1d Routinely assess the City's ability to meet demand for potable water by periodically updating the City of Martinez Urban Water Management Plan.

PCU-I-10.1e As part of the development review process, require development projects to demonstrate that adequate water supply is available to serve the project.

4.15.2 WASTEWATER

KEY TERMS

Effluent: Effluent is an outflowing of water from a natural body of water, or from a man-made structure. Effluent in the man-made sense is generally considered to be water pollution, such as the outflow from a sewage treatment facility or the wastewater discharge from industrial facilities. In the context of waste water treatment plants, effluent that has been treated is sometimes called secondary effluent, or treated effluent.

NPDES: Water pollution degrades surface waters making them unsafe for drinking, fishing, swimming, and other activities. As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.

WWTP: Wastewater treatment plant. Treatment of wastewater may include the following processes: screening to remove large waste items; grit removal to allow sand, gravel, and sediment to settle out; primary sedimentation where sludge can settle out of the wastewater; secondary treatment to substantially degrade the biological content of the sewage; tertiary treatment to raise the quality of the effluent before it is discharged; and, discharge.

WASTEWATER TREATMENT

This section describes the City's wastewater infrastructure, wastewater flows, treatment plant permit requirements, and previous infrastructure planning. The Central Costa Contra Sanitary District (CCCSD, or Central San), Mt. View Sanitary District (MVSD), and County Sanitation District #6 (SD 6) provide wastewater collection, treatment, and disposal services for its residents and businesses. The City is primarily served by two wastewater treatment plants, (1) the CCCSD Wastewater Treatment Plant and the (2) MVSD Wastewater Treatment Plant. SD-6 operates a community wastewater treatment that serves the Stonehurst subdivision.

Two sanitary districts provide wastewater collection and treatment for Martinez. CCCSD collects and treats about two thirds of the wastewater generated within the Martinez water service area. The remainder of the wastewater from the east central portion of the service area is collected and treated by MVSD. This area is roughly bounded by Pacheco Boulevard on the north, Bush and Pine Streets on the west, and Center Street on the south. Both sanitary districts also serve portions of the CCWD treated water service area. The City currently does not have the infrastructure to supply recycled water.

4.15 UTILITIES AND SERVICE SYSTEMS

CCCSD WASTEWATER TREATMENT PLANT (ORDER # R2-2012-0016 NPDES # CA0037648)

The CCCSD Wastewater Treatment Plant is located near Martinez, on unincorporated land, at the intersection of I-680 and Highway 4. CCCSD currently serves portions of Martinez, Concord, Clayton, Pleasant Hill, Orinda, Lafayette, Walnut Creek, Moraga, Alamo, Danville, and San Ramon. CCCSD was created in 1946 to serve central Contra Costa County's rapidly growing population. During CCCSD's first decade, more than 300 miles of sewer pipelines were installed and a 4.5 MGD primary treatment plant was constructed. During the 1950s and 1960s wastewater flows increased and by 1968 the plant had capacity to treat 30 MGD.

In 1973, CCCSD started construction of an advanced wastewater treatment plant to include filtration for water reclamation for industrial reuse. However, the regulations requiring advanced wastewater treatment were eliminated while the plant was under construction, and completing the plant as originally designed became financially impractical. Instead, the current treatment facility was successfully completed as a secondary treatment plant. Effluent from the activated sludge secondary treatment process is disinfected and discharged to an outfall in Suisun Bay. The secondary treated effluent does not meet the requirements of Title 22 and additional treatment is required before it is suitable for recycled water use. The secondary treatment facilities have a current NPDES permitted capacity of 53.8 MGD, with an average dry weather flow of about 34 MGD. A portion of the wastewater collected at the treatment plant is treated for recycled water use in CCCSD's filtration plant. The filtration plant uses dual media gravity filtration and ultra violet and sodium hypochlorite disinfection facilities to produce Title 22 unrestricted use effluent. The filtration plant is permitted for 3.8 MGD.

The Plant and its associated Facility are permitted under Waste Discharge Requirements (WDRs) (TENTATIVE ORDER R2-2022-00XX NPDES PERMIT CA0037648), as adopted by the RWQCB on August 1, 2022. The Order/Permit is effective through July 31, 2027 at which time the CCCSD will seek the approval of a new Order/Permit.

MVSD WASTEWATER TREATMENT PLANT (ORDER # R2-2021-0026 NPDES # CA0037770)

The MVSD was established in 1923 to provide sewer service to unincorporated areas east of the City of Martinez, portions of which are now annexed into the City. MVSD currently operates a wastewater filtration system with an ultraviolet disinfection system, which was the first full-scale operation of this type in Northern California when constructed. The District's initial sewer system fed into a large community septic tank. In 1951, the District installed primary treatment units. Secondary treatment began in 1968 with the addition of a secondary clarifier, digester, thickener, and a high rate biofilter. MVSD's wastewater treatment plant provides advanced secondary level treatment for approximately 2.0 million gallons per day (mgd) of domestic and commercial wastewater; the plant has a design capacity of 3.2 mgd. The last assessment, in 2013, found that in general it has sufficient capacity to convey build-out design flows. A new capacity assessment study is planned for 2023. The study will include hydraulic model development, flow monitoring to calibrate the model, hydraulic analysis against design storms, evaluation of potential surcharge locations, updated capacity assessments for each of the District's pump stations, and confirmation of capacity improvements.

The Plant and its associated facility are permitted under WDRs Order No. R2-2021-0026 NPDES PERMIT CA0037770, as adopted by the RWQCB on December 15, 2021. The Order/Permit is effective through January 31, 2027 at which time the MVSD will seek the approval of a new Order/Permit.

ALHAMBRA VALLEY/SANITATION DISTRICT 6

After annexation of a portion of the Alhambra Valley, the City has acquired Contra Costa County Sanitation District 6 (SD-6), a sanitary system that used to be operated by the County, which serves the Stonehurst community. This area is still on septic systems. The City owns and operates the sanitary system, which collects effluent only and pumps to a leach field within the annexed subdivision boundaries. Currently, each individual property within the area has a septic tank to collect solids and the individual property owners are responsible for maintenance and operation of their private septic tanks.

WASTEWATER FLOWS

Wastewater flows are typically evaluated for several conditions, including:

- Average Dry Weather Flow (ADWF) – This is the flow rate that is considered to be the actual wastewater flow from homes and businesses in the community (although it may include some flow resulting from groundwater entering the sewer system). It is measured during the summer, when the weather is dry and there is minimal infiltration and no inflow. This flow is dependent on the number of residents and number and type of businesses within the community. It varies throughout the day, with the peak diurnal flow typically occurring in the morning as the community residents wake up and prepare for the day.
- Infiltration and Inflow (I&I) – This is flow that enters the sewer system from rainfall and from increased levels of groundwater caused by the rainfall or by seasonal variation of groundwater levels.
- Peak Hour Wet Weather Flow (PHWWF) – This is the sum of the peak WWF and the peak I&I. The PHWWF is the peak flow rate that is expected to occur during large storm events.

RECYCLED WATER INFRASTRUCTURE

Currently, the City has no recycled water supply and no indirect recycled water use, which are also not projected to occur in the future at this time.

According to the City of Martinez 2020 UWMP, CCCSD has been providing tertiary-treated recycled water for in-plant usage, irrigation customers, and a range of commercial uses since 1996. CCCSD currently serves recycled water to some sites inside the City of Martinez, but outside the City of Martinez's water service area. CCCSD currently provides approximately 700 AFY to recycled water customers within the Cities of Pleasant Hill, Concord and Martinez (outside the City's service area), with an agreement which allows for up to 1,630 AFY of dry year demand to be met with recycled water in specified areas. CCCSD also uses almost 900 AFY of recycled water internally at its own facilities for process water at its treatment plant and landscape irrigation.

REGULATORY SETTING - WASTEWATER

STATE

State Water Resources Control Board/Regional Water Quality Control Board

In California, all wastewater treatment and disposal systems fall under the overall regulatory authority of the SWRCB and the nine California RWQCBs, who are charged with the responsibility of protecting beneficial uses of state waters (ground and surface) from a variety of waste discharges, including wastewater from individual and municipal systems. The City of Martinez falls within the jurisdiction of the San Francisco RWQCB.

The RWQCB's regulatory role often involves the formation and implementation of basic water protection policies. These are reflected in the individual RWQCB's Basin Plan, generally in the form of guidelines, criteria and/or prohibitions related to the siting, design, construction, and maintenance of on-site sewage disposal systems. The SWRCB's role has historically been one of providing overall policy direction, organizational and technical assistance, and a communications link to the state legislature.

The RWQCBs may waive or delegate regulatory authority for on-site sewage disposal systems to counties, cities or special districts. Although not mandatory, it is commonly done and has proven to be administratively efficient. In some cases this is accomplished through a Memorandum of Understanding (MOU), whereby the local agency commits to enforcing the Basin Plan requirements or other specified standards that may be more restrictive. The RWQCBs generally elect to retain permitting authority over large and/or commercial or industrial on-site sewage disposal systems, depending on the volume and character of the wastewater.

LOCAL

Central Contra Costa Sanitary District Comprehensive Wastewater Master Plan (2017)

The Central Contra Costa Sanitary District Comprehensive Wastewater Master Plan includes a summary of CCCSD's system-wide water demands, the planning criteria used to determine water system demands, an analysis of the District's water system, and a summary of existing and future water system facilities within the District.

Contra Costa County Water and Wastewater Agencies Combined Municipal Services Review and Sphere of Influence Study (2014)

The *Combined Municipal Service Review and Sphere of Influence Study* focuses on the 29 agencies (eight cities, 20 special districts and one private water company) that provide water and/or wastewater services within Contra Costa County (County). California state law authorizes Local Agency Formation Commissions (LAFCOs) within each county to establish boundaries and spheres of influence (SOIs) for cities and special districts under their purview and to authorize the provision

of services within the approved service areas. This document was approved in May, 2014. Contra Costa LAFCO conducts periodic reviews of each service provider, and to adopt determinations addressing current service levels and the ability of each agency to continue to provide adequate services into the future. Additionally LAFCOs review and approve service area boundaries and annexations into service areas.

Mt. View Sanitary District Sewer System Management Plan (2019)

The District's Sewer System Management Plan (SSMP) aims to achieve the following goals: To properly manage, operate, and maintain all parts of the public wastewater collection system, provide adequate capacity to convey peak flows, to minimize the frequency of sanitary sewer overflows (SSOs), and mitigate the impact of SSOs. The SSMP must include those elements listed below that are appropriate and applicable to the District's Operation and Maintenance Program:

- Collection System Maps
- Resources and Budget
- Prioritized Preventative Maintenance
- Scheduled Inspections and Condition Assessment
- Contingency Equipment and Replacement Inventories
- Training
- Outreach to Plumbers and Building Contractors

Chapter 21.18 - Water and Sewers Section 21.18.010 - Sanitary Sewers

The City of Martinez Municipal Code requires that a subdivider shall install sanitary sewer facilities connecting with a sanitary district sewage disposal system to serve each lot, in accord with plans approved by the City Engineer. The sanitary sewerage facilities connecting with the City shall be installed to the satisfaction of the City Engineer.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on the environment associated with Utilities if it would:

- Require or result in the relocation or construction of new or expanded wastewater facilities, the construction or relocation of which could cause significant environmental effects; and/or
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers existing commitments.

IMPACTS AND MITIGATION MEASURES

Impact 4.15-3: General Plan implementation would not have the potential to result in a determination by the wastewater treatment provider which serves or may serve the Project that it does not have adequate capacity to serve the Project’s projected demand in addition to the provider’s existing commitments (Less than Significant)

As Martinez continues to develop in the future, there will be an increased need for wastewater treatment and conveyance infrastructure. Both the CCCSD Wastewater Treatment Plant and the MVSD Wastewater Treatment Plant serve the City of Martinez. CCCSD collects and treats about two thirds of the wastewater generated within the Martinez water service area. The remainder of the wastewater (from the east central portion of the water service area) is collected and treated by MVSD.

The CCCSD Comprehensive Wastewater Master Plan addresses the majority of the City’s wastewater needs, requiring that the CCCSD continue to implement phased improvements to the wastewater treatment plant when triggered by growth. The CCCSD Treatment Plant has a treatment capacity of approximately 54 million gallons per day (mgd) and approximately 270 mgd of wet-weather flow. The CCCSD Treatment Plant currently treats an average daily dry-weather flow of 34 mgd and estimates to treat 41mgd average daily dry-weather flow by 2035. As described in the Master Plan, all the liquid stream processes have adequate capacity through 2035 under dry weather conditions. Additionally, the Master Plan identified that no improvements were needed for the collection system and existing pipelines to accommodate planned growth within the CCCSD service area.

The MVSD plant has a dry weather permitted capacity of 3.2 mgd and currently treats an average of 1.25 mgd. Therefore, the MVSD Plant has available capacity to meet additional demand.

Both the CCCSD and MVSD have adequate demand available to serve growth under the General Plan Update. Based on the estimated per capita wastewater generation rates, the General Plan Update would result in approximately 0.576 MGD as shown in Table 4.15-3.

TABLE 4.15-3: PROJECTED WASTEWATER GENERATION ESTIMATES

Development Type	General Plan New Units	General Plan New Square Feet	Base Wastewater Flow (gpd/unit)	Total Wastewater Generated (gpd)
Single Family Units	865	-	195/unit	168,675
Multifamily Units	1,195	-	105/unit	125,475
Commercial/ Office/ Industrial/Public/Quasi-Public	-	2,818,060	0.1/SF	281,806
TOTAL	2,060	2,818,060	-	576,287

SOURCE: CCCSD, 2010; DE NOVO PLANNING GROUP, 2022

A capacity assessment study for the MVSD Wastewater Treatment Plant is planned for 2023. It will include hydraulic model development, flow monitoring to calibrate the model, hydraulic analysis against design storms, evaluation of potential surcharge locations, updated capacity assessments for each of the District's four pump stations, confirmation of the capacity improvement locations listed in the 2013 assessment, and identification of any new capacity-related projects for inclusion in the District's Facilities Rehabilitation and Capital Improvement Program (FRP and CIP).

As new development projects are proposed, the project applicant would be required to demonstrate that adequate capacity is available to serve the proposed development's wastewater generation. The City and service providers will need to identify and include within the CIP necessary system upgrades and capacity enhancements to meet growth, prior to the approval of new development. The City and service providers periodically review and update their applicable master plans, and as growth continues to occur within the Study Area, will continue to identify necessary system upgrades and capacity enhancements to meet growth projections. Given that projected wastewater generation volumes associated with General Plan buildout is not anticipated to exceed the capacity of the wastewater treatment provider, adequate capacity would be available to serve future development; this impact would be **less than significant**, and no mitigation is required.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Circulation Element

Goals

C-G-15 Provide adequate public infrastructure and services to meet the needs of existing and future development.

Policies

C-P-15.2 Require all development projects to mitigate their infrastructure service impacts or demonstrate that the infrastructure, public services, and utilities serving the City can accommodate the increased demand for services, and that service levels for existing users will not be degraded or impaired.

Implementation Measures

C-I-15.1a Periodically review and update the various City master plans for the provision and/or extension of public services to serve existing and future development. These plans include, but are not limited to, the Urban Water Management Plan and the Capital Improvement Program.

C-I-15.1c As part of the development review process, determine the potential impacts of development and infrastructure projects on public infrastructure, and ensure that new development contributes its fair share toward necessary on and off-site infrastructure.

Impact 4.15-4: General Plan implementation may require or result in the relocation or construction of new or expanded wastewater facilities, the construction or relocation of which could cause significant environmental effects (Less than Significant)

Development under the proposed General Plan Update would result in increased wastewater flows. Over time, this may result in the need for additional or expanded wastewater treatment facilities and or conveyance infrastructure (as described above under impact 4.15-3).

The infrastructure and facilities necessary to serve new growth would involve development of some facilities on-site, some facilities off-site on appropriately designated land, and may also involve improvements to existing facilities and disturbance of existing rights-of-way. The specific impacts of providing new and expanded facilities cannot be determined at this time, as the General Plan Update does not propose development nor does it designate specific sites for new or expanded public facilities.

As described under Impact 4.15-3, new wastewater treatment facilities are not anticipated to be needed; however, expansion of the CCCSD Wastewater Treatment Plan is anticipated to occur as described in the CCCSD Comprehensive Wastewater Master Plan.

New conveyance infrastructure would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan Update. Impacts associated with construction activities may include air quality, drainage, and noise, and impacts associated with operation including traffic, noise, air quality, hazards, and land stability. These impacts would generally occur as described in the relevant chapters (Chapters 4.1 through 4.16,) of this Draft EIR.

Wastewater treatment and conveyance facilities would be evaluated at the project-level in association with subsequent development projects. As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. As such, this impact would be considered **less than significant**.

Circulation Element

Goals

C-G-15 Provide adequate public infrastructure and services to meet the needs of existing and future development.

Policies

C-P-15.2 Require all development projects to mitigate their infrastructure service impacts or demonstrate that the infrastructure, public services, and utilities serving the City can

accommodate the increased demand for services, and that service levels for existing users will not be degraded or impaired.

Implementation Measures

- C-I-15.1a Periodically review and update the various City master plans for the provision and/or extension of public services to serve existing and future development. These plans include, but are not limited to, the Urban Water Management Plan and the Capital Improvement Program.
- C-I-15.1c As part of the development review process, determine the potential impacts of development and infrastructure projects on public infrastructure, and ensure that new development contributes its fair share toward necessary on and off-site infrastructure.

4.15.3 STORMWATER DRAINAGE

The information in this section focuses on the potential for the General Plan Update to result in the demand for new or expanded stormwater drainage facilities. Section 4.9 (Hydrology and Water Quality) includes an expanded analysis of water quality, flooding, and other stormwater related issues.

CREEKS AND FLOOD CONTROL FACILITIES

The Alhambra Creek Watershed covers approximately 16.5 square miles in north central Contra Costa County and encompasses a portion of the City. The combined branches flow through Briones Valley, valleys containing open space, wildlife habitat, residential and commercial areas, through downtown Martinez and then discharge into the Carquinez Straits through a tidal wetland at the Martinez Regional Shoreline. The City owns and operates most of the smaller storm drainage systems within the City.

REGULATORY SETTING- STORMWATER DRAINAGE

FEDERAL

Clean Water Act (CWA)

The CWA, initially passed in 1972, regulates the discharge of pollutants into watersheds throughout the nation. Section 402(p) of the act establishes a framework for regulating municipal and industrial stormwater discharges under the NPDES Program. Section 402(p) requires that stormwater associated with industrial activity that discharges either directly to surface waters or indirectly through municipal separate storm sewers must be regulated by an NPDES permit.

The SWRCB is responsible for implementing the Clean Water Act and does so through issuing NPDES permits to cities and counties through regional water quality control boards. Federal regulations allow two permitting options for storm water discharges (individual permits and general permits). The SWRCB elected to adopt a statewide general permit (Water Quality Order No. 2003-0005-DWQ) for small Municipal Separate Storm Sewer Systems (MS4s) covered under the CWA to efficiently

regulate numerous storm water discharges under a single permit. The San Francisco RWQCB has issued a large municipality permit to jurisdictions in the San Francisco Bay region, including Martinez as part of the Contra Costa Permittees, (WDR Order R2-2009-0074, NPDES Permit No. CAS612008, 10/14/2009). Permittees must meet the requirements in Provision D of the General Permit, which require the development and implementation of a Storm Water Management Plan (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable. The SWMP must include the following six minimum control measures:

1. Public Education and Outreach on Storm Water Impacts;
2. Public Involvement/Participation;
3. Illicit Discharge Detection and Elimination;
4. Construction Site Storm Water Runoff Control;
5. Post-Construction Storm Water Management in New Development; and
6. Redevelopment and Pollution Prevention/Good Housekeeping for Municipal Operations.

National Pollutant Discharge Elimination System (NPDES)

National Pollutant Discharge Elimination System (NPDES) permits are required for discharges to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, oceans, dry stream beds, wetlands, and storm sewers that are tributary to any surface water body. NPDES permits are issued under the Federal Clean Water Act, Title IV, Permits and Licenses, Section 402 (33 USC 466 et seq.)

The RWQCB issues these permits in lieu of direct issuance by the Environmental Protection Agency, subject to review and approval by the Environmental Protection Agency (EPA) Regional Administrator (EPA Region 9). The terms of these NPDES permits implement pertinent provisions of the Federal Clean Water Act and the Act's implementing regulations, including pre-treatment, sludge management, effluent limitations for specific industries, and anti-degradation. In general, the discharge of pollutants is to be eliminated or reduced as much as practicable so as to achieve the Clean Water Act's goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the RWQCB are also Waste Discharge Requirements issued under the authority of the CWA.

These NPDES permits regulate discharges from publicly owned treatment works, industrial discharges, stormwater runoff, dewatering operations, and groundwater cleanup discharges. NPDES permits are issued for five years or less, and therefore must be updated regularly. The rapid and dramatic population and urban growth in the Central Valley Region has caused a significant increase in NPDES permit applications for new waste discharges. To expedite the permit issuance process, the RWQCB has adopted several general NPDES permits, each of which regulates numerous discharges of similar types of wastes. The SWRCB has issued general permits for stormwater runoff from construction sites statewide. Stormwater discharges from industrial and construction activities in the Central Valley Region can be covered under these general permits, which are administered jointly by the SWRCB and RWQCB.

Federal Emergency Management Agency (FEMA)

The National Flood Insurance Act of 1968 has adopted as a desired level of protection, an expectation that developments should be protected from floodwater damage of the Intermediate Regional Flood (IRF). The IRF is defined as a flood that has an average frequency of occurrence on the order of once in 100 years, although such a flood may occur in any given year. Communities are occasionally audited by the DWR to insure the proper implementation of FEMA floodplain management regulations.

STATE

Department of Water Resources

The DWR's major responsibilities include preparing and updating the California Water Plan to guide development and management of the State's water resources, planning, designing, constructing, operating, and maintaining the State Water Resources Development System, protecting and restoring the Sacramento-San Joaquin Delta, regulating dams, providing flood protection, assisting in emergency management to safeguard life and property, educating the public, and serving local water needs by providing technical assistance. In addition, the DWR cooperates with local agencies on water resources investigations; supports watershed and river restoration programs; encourages water conservation; explores conjunctive use of ground and surface water; facilitates voluntary water transfers; and, when needed, operates a State drought water bank.

State Water Resource Control Board (SWRCB) Storm Water Strategy

The Storm Water Strategy is founded on the results of the Storm Water Strategic Initiative, which served to direct the SWRCB's role in storm water resources management. The Storm Water Strategy developed guiding principles to serve as the foundation of the storm water program; identified issues that support or inhibit the program from aligning with the guiding principles; and proposed and prioritized projects that the Water Boards could implement to address those issues. The SWRCB staff created a strategy-based document called the Strategy to Optimize Management of Storm Water (STORMS). STORMS includes a program vision, missions, goals, objectives, projects, timelines, and consideration of the most effective integration of project outcomes into the SWRCB's Storm Water Program.

LOCAL

Contra Costa Clean Water Program Stormwater C.3 Guidebook

The 6th Edition of the Contra Costa Clean Water Program Stormwater C.3 Guidebook (2012) helps to ensure that applicable projects comply with the C.3 requirements in the California Regional Water Quality Control Boards' Municipal Regional Permit. The Guidebook provides detailed information about how to prepare a Stormwater Control Plan. In addition, there are two Guidebook Addendums, "Contra Costa Clean Water Program Technical Criteria for Non-LID Facilities" and "Preparing a Stormwater Control Plan for a Small Land Development Project". Provision C.3 compliance must be demonstrated at the time of application for a development project, including rezoning, tentative map, parcel map, conditional use permit, variance, site development review, design review,

development agreement, or building permit. All Regulated Projects require a Stormwater Control Plan showing the location and footprint of proposed impervious surfaces and of proposed stormwater facilities, and a description of how runoff will flow from impervious surfaces to the facilities.

Bay Area Stormwater Management Agencies Association - Start at the Source: Design Guidance Manual for Stormwater Quality Protection

This document is intended for use in the planning and design phases of residential, commercial, institutional, and industrial development and redevelopment. It recognizes that one of the best opportunities to reduce the generation of urban runoff or “nonpoint source pollution” from development is through planning and design. This document provides Best Management Practices including principles and techniques for basic siting and design considerations, construction phase strategies, and post construction property management practices.

Martinez Municipal Code Chapter: 15.06.050 - Stormwater Control Plan Required

In accordance with thresholds and effective dates in the City's NPDES Permit, every application for a development project, including but not limited to a rezoning, tentative map, parcel map, conditional use permit, variance, site development permit, design review, or building permit that is subject to the development runoff requirements in the City's NPDES permit shall be accompanied by a stormwater control plan that meets the criteria in the most recent version of the Contra Costa Clean Water Program Stormwater C.3 Guidebook.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on the environment associated with utilities and service systems if it would:

- Require or result in the relocation or construction of new or expanded storm water drainage facilities, the construction or relocation of which could cause significant environmental effects.

IMPACTS AND MITIGATION MEASURES

Impact 4.15-5: Implementation of the General Plan may result in new or expanded stormwater drainage facilities the construction of which could cause significant environmental effects (Less than Significant)

Development under the proposed General Plan Update would result in increased areas of impervious surfaces throughout the Study Area, resulting in the need for additional or expanded stormwater drainage, conveyance, and retention infrastructure.

The infrastructure and facilities necessary to serve new growth would involve development of some facilities on-site, some facilities off-site on appropriately designated land, and may also involve improvements to existing facilities and disturbance of existing rights-of-way. The specific impacts of

providing new and expanded drainage facilities cannot be determined at this time, as the General Plan Update does not propose development nor does it designate specific sites for new or expanded public facilities.

Stormwater drainage and conveyance facilities would be evaluated at the project-level in association with subsequent development projects. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan. Impacts associated with construction activities may include air quality, drainage, and noise, and impacts associated with operation including traffic, noise, air quality, hazards, and land stability. These impacts would generally occur as described in the relevant chapters (Chapters 4.1 through 4.16), of this Draft EIR. Other impacts that may occur include short-term direct visual impacts associated with construction activities; potential direct impacts on a variety of biological resources, including wetlands and riparian resources; loss of trees and other sensitive habitats; and loss or disturbance of special status plant and animal species. Additionally, air quality emissions of particulate matter, greenhouse gases, oxides of nitrogen, and reactive organic gases may be generated.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan Update, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

The proposed General Plan Update includes policies and implementation measures designed to ensure adequate drainage infrastructure is available to serve development, to minimize the potential adverse effects of stormwater conveyance, and to ensure that development does not move forward until adequate drainage capacity exists. Policy OSC-P-9.2 enforces mandates regarding water quality, such as the NPDES permit, be enforced. This policy and the associated implementation measures would require review of future projects to ensure adequate measures are in place to protect water quality and also address management of hazardous materials, buffer establishment between development and water resources, and promotion of design that incorporates stormwater detention and retention in development projects. Specifically, Implementation Measure OSC-I-9.2b requires new development to incorporate treatment measures, site design techniques, and source controls to address stormwater runoff pollutant discharges and prevent increases in runoff rates in development projects. Implementation Measure OSC-I-9.2c calls for the reduction of impervious surface areas associated with projects and encourages design that reduces stormwater flow and volume. Implementation Measure OSC-I-11.1a requires the City coordinate with Contra Costa County Clean Water Program on implementation of current NPDES regulations and stormwater permit requirements, including, but not limited to, the C.3 requirements for new development and redevelopment and the use of permeable surfaces.

The policies and implementation measures identified above and listed below would ensure that there is adequate stormwater drainage and flood control infrastructure to serve future development under the General Plan Update, and would ensure that future drainage and flood control

infrastructure projects do not result in adverse environmental impacts. This is a **less than significant** impact.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Open Space and Conservation Element

Policies

- OSC-P-9.1: Protect and improve the quality of water in all of Martinez’s watersheds, creeks, and water bodies.
- OSC-P-9.2: Enforce Federal State and local mandate regarding water quality such as the National Pollutant Discharge Elimination System (NPDES).
- OSC-P-10.1 Support measures that would decrease the likelihood of flooding and/or reduce the amount of damage caused by flooding.
- OSC-P-10.2 Regulate overgrazing, clearing, burning, and other activities which could reduce vegetation cover within the Alhambra Creek Drainage Basin. Unless absolutely necessary, prohibit the construction of impermeable surfaces over permeable soil and geologic areas and the removal of permeable soils by extensive grading and scraping practices.
- OSC-P-10.3 All other waterways and their banks should be protected from encroachment and degradation and restored or enhanced visually through appropriate landscaping where deemed necessary. Integration of these into park or trail systems and other common open spaces should be required as a condition for development of adjoining lands.
- OSC-P-10.4 In all hilly areas, grading practices for drainage purposes should restore natural patterns of surface water run-off with respect to volume of flow.
- OSC-P-10.5 As funds allow and/or as a condition of approval, sites in the first and second order tributary sub-basins of the Alhambra Creek Drainage Basin should be developed for flood retention purposes and for additional recreation or livestock watering uses where appropriate. Retention dam sites should be chosen with due consideration to soil and geologic conditions related to slide hazard.
- OSC-P-10.6 Support the revegetation of watercourses and enforce the use of native vegetation, providing the type of vegetation is compatible with the watercourse’s maintenance program and does not adversely alter channel capacity.
- OSC-P-10.7 Where feasible, enhance watersheds and aquifer recharge areas, as funds become available.

Implementation Measures

- OSC-I-6.1d Continue to incorporate measures to reduce runoff and control stormwater.

- OSC-I-9.1a: Review all projects in watersheds to limit drainage and preserve water quality by requiring appropriate mitigation measures as part of development.
- OSC-I-9.1b: Manage storage of hazardous materials, especially underground tanks that may leak into existing waterways, to prevent pollution.
- OSC-I-9.1c: Consider the establishment of buffers between development and water resources to prevent contamination of the water from urban pollutants.
- OSC-I-9.2a Support the Contra Costa Clean Water Program and continue to implement a stormwater clean water program to reduce pollutants according to NPDES mandates.
- OSC-I-9.2b Require new development to incorporate treatment measures, site design techniques, and source controls to address stormwater runoff pollutant discharges and prevent increase in runoff rates in development projects.
- OSC-I-9.2c Reduce impervious surface areas associated with projects and encourage design that reduces stormwater flow and volume.
- OSC-I-9.2d Enforce development guidelines that protect areas susceptible to erosion or other factors that would pose significant impacts to local waterways.
- OSC-I-9.2e Encourage the use of pest-resistant, native species and drought-tolerant landscape design and features, and promote the use of design that incorporates stormwater detention and retention in development projects.
- OSC-I-9.2f Support the use of vegetated “green” roofs to reduce runoff flow rates and volume, absorb and filter pollutants, supply green habitat and nesting areas, and help lower urban heat island effect.
- OSC-I-9.2g Continue to strengthen the City’s Water Conservation in Landscape Ordinance, and update the ordinance when necessary.
- OSC-I-9.2h When appropriate, utilize the Bay-Friendly Landscape Guidelines and native species in order to reduce water consumption.
- OSC-I-9.2i Support the efforts of Contra Costa County Sanitation District with respect to their reclaimed water management project.
- OSC-I-9.2j Promote reclamation and reuse of wastewater for irrigation and to recharge aquifers.
- OSC-I-11.1a Continue to coordinate with Contra Costa County Clean Water Program on implementation of current National Pollutant Discharge Elimination System (NPDES) regulations and the California Regional Water Quality Control Board for the San Francisco Bay Region Municipal Regional Stormwater Permit requirements, including, but not limited to, the C.3 requirements for new development and redevelopment and the use of permeable surfaces.

4.15 UTILITIES AND SERVICE SYSTEMS

- OSC-I-11.1b Continue to work in collaboration with the Contra Costa County Flood Control and Water Conservation District to develop and enact best management practices for stormwater management.
- OSC-I-11.1c Develop and adopt a Green Infrastructure Plan as required by the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit and submit the framework and plan to the California Regional Water Quality Control Board for the San Francisco Bay Region by the required deadlines.

Circulation Element

Goals

- C-G-15 Provide adequate public infrastructure and services to meet the needs of existing and future development.

Policies

- C-P-15.2 Require all development projects to mitigate their infrastructure service impacts or demonstrate that the infrastructure, public services, and utilities serving the City can accommodate the increased demand for services, and that service levels for existing users will not be degraded or impaired.

Implementation Measures

- C-I-15.1a Periodically review and update the various City master plans for the provision and/or extension of public services to serve existing and future development. These plans include, but are not limited to, the Urban Water Management Plan and the Capital Improvement Program.
- C-I-15.1c As part of the development review process, determine the potential impacts of development and infrastructure projects on public infrastructure, and ensure that new development contributes its fair share toward necessary on and off-site infrastructure.

4.15.4 SOLID WASTE

KEY TERMS

Class I landfill: A landfill that accepts for disposal 20 tons or more of municipal solid waste daily (based on an annual average); or one that does not qualify as a Class II or Class III municipal solid waste landfill.

Class II landfill: A landfill that (1) accepts less than 20 tons daily of municipal solid waste (based on an annual average); (2) is located on a site where there is no evidence of groundwater pollution caused or contributed by the landfill; (3) is not connected by road to a Class I municipal solid waste landfill, or, if connected by road, is located more than 50 miles from a Class I municipal solid waste landfill; and (4) serves a community that experiences (for at least three months each year) an interruption in access to surface transportation, preventing access to a Class I landfill, or a community with no practicable waste management alternative.

Class III landfill: A landfill that is not connected by road to a Class I landfill or a landfill that is located at least 50 miles from a Class I landfill. Class III landfills can accept no more than an average of one ton daily of ash from incinerated municipal solid waste or less than five tons daily of municipal solid waste.

Transfer station: A facility for the temporary deposition of some wastes. Transfer stations are often used as places where local waste collection vehicles will deposit their waste cargo prior to loading into larger vehicles. These larger vehicles will transport the waste to the end point of disposal or treatment.

Waste Management Plan: A Waste Management Plan (WMP) is a completed WMP form, approved by the City for the purpose of compliance with Chapter 8.19.050 of the Martinez Municipal Code, submitted by the applicant for any covered project. Prior to project start, the WMP shall identify the types of construction and demolition (C&D) debris materials that will be generated for disposal and recycling. A completed WMP contains actual weight or volume of the material disposed recycled receipts.

WASTE COLLECTION SERVICES

The City is responsible for all solid waste collection within the City limits. Republic Services (formerly Allied Waste Services) has a franchise agreement with the City for the collection and disposal of solid waste and recyclable items. It operates both the Contra Costa Transfer Station and the Keller Canyon Landfill, which is projected to cease operation in 2050. The company offers weekly curbside commercial and residential pick-up services as well as a drop off service for a limited variety of household hazardous waste materials.

As a joint effort, CCCSD and Mt. View Sanitary District operate the Household Hazardous Waste Collection Facility. All hazardous waste materials can be dropped off for free by residents or for a small fee by businesses.

The City and Republic Services have franchise agreements establishing garbage and recycling collection services for residents and businesses in Martinez.

Republic Services implemented a "single stream" (also known as "Brown cart") curbside recycling program for single and multi-family residences in 2005. Single stream recycling allows residents to commingle ("mix") all household recyclables (metal, glass, plastic containers, and mixed paper, cardboard) in the brown 64 gallon recycling cart for collection.

Residents can also recycle lawn clippings and other yard waste with their 96 gallon green recycling carts. Pick up is every other week on the same day as garbage collection. Acceptable Yard Waste includes grass clippings, brush, weeds and leaves, hay and straw, prunings and tree trimmings. Materials that are not accepted for collection include plastic bags, rocks, concrete, sod and dirt, stumps, palm fronds and pet waste.

In addition, the City's franchise agreements with Republic Services, entitle customers free pickups that include recycling/yard waste collections (which include household battery, cellular telephone,

and compact fluorescent light bulb recycling); refuse collections; “bulky item” collections (such as mattresses, furniture, or appliances); and scheduled “spring cleanups”.

WASTE DISPOSAL FACILITIES

Central Contra Costa Transfer Station

Republic Services operates the Contra Costa Transfer Station. The station is located at 951 Waterbird Way, in the eastern portion of the City of Martinez. All the Municipal Solid Waste (MSW) collected by the City goes to this transfer station. The MSW delivered to the transfer station is checked for potentially hazardous waste material, and transferred onto larger trucks for ultimate disposal at a sanitary landfill or processed elsewhere. The City of Martinez disposes and/or processes MSW (garbage, recycling, and green waste) at the Keller Canyon County Landfill, operated by Republic Services.

Keller Canyon County Landfill

The Keller Canyon Landfill opened on May 7, 1992 as a Class II Landfill operating under permit number 07-AA-0032. The facility accepts municipal solid waste, non-liquid industrial waste, contaminated soils, ash, grit, and sludges. Keller Canyon Landfill is closed to the public.

Keller Canyon Landfill covers 1,399 acres of land; 244 acres are permitted for disposal. The Keller Canyon landfill currently handles 2,500 tons of waste per day, with a permittee capacity of up to 3,500 tons of waste per day. According to the CalRecycle Solid Waste Facility Permit (07-AA-0032), the remaining capacity of the landfill’s disposal area is estimated at approximately 63 million cubic yards, and the estimated date for ceasing operations for the landfill is 2050.

The composite liner system at the landfill was designed to meet or exceed all State and Federal regulations. The containment system consists of two feet of compacted clay covered by a high-density polyethylene (HDPE) textured geomembrane. Beneath the liner system is a one-foot thick layer of sand that intercepts groundwater and conveys it to an adjacent wetlands mitigation area. The leachate collection and removal system is located directly on top of the composite liner. HDPE pipes are located within the granular layer to increase the system's efficiency.

The groundwater monitoring system at the landfill consists of 24 wells, 19 piezometers and four springs which are sampled or measured monthly, quarterly, or annually. Leachate is sampled from the leachate holding tanks after 50,000 gallons have accumulated. The site has a sedimentation basin that is monitored during and after each rainfall or quarterly, whichever is greater. Radiation is monitored by radiation detectors located at the scalehouse. Landfill gas monitoring probes are located at 29 positions around the perimeter of the site.

HAZARDOUS WASTE DISPOSAL

Central Contra Costa Sanitary District and Mountain View Sanitary District partnered in 1997 to open a Household Hazardous Waste (HHW) facility in Martinez. The facility is located at 4797 Imhoff Place in Martinez, and is open Monday through Saturday from 9 a.m. to 4 p.m. for residents (9 a.m. to

3:30 p.m. for the reuse room); and Monday through Saturday by appointment only for small businesses.

Pharmaceutical disposal through Central San has partnered with the Sheriff’s Department and eight local police departments in Contra Costa County. Households may use any of the collection sites to safely dispose of unwanted or expired medications. These sites are open to all county residents Monday through Friday, from 8:00 a.m. to 5:00 p.m. The City of Martinez offers a free disposal service for pharmaceuticals at the Martinez Police Department, located at 525 Henrietta Street.

SOLID WASTE GENERATION RATES AND VOLUMES

The California Department of Resources Recycling and Recovery (CalRecycle) tracks and monitors solid waste generation rates on a per capita basis. Per capita solid waste generation rates and total annual solid waste disposal volumes for the City of Martinez between 2015 and 2019 are shown in Table 4.15-4.

TABLE 4.15-4: SOLID WASTE GENERATION RATES

Year	Waste Generation Rate (lbs/person/day)	Per Capita Disposal (tons/year)	Waste Generation Employment Rate (lbs/employee/day)	Employment Disposal (tons/year)
2015	5.6	37,384.00	10.60	19,838.00
2016	5.8	37,224.00	10.60	20,172.00
2017	5.8	37,831.00	10.60	20,753.00
2018	6.0	38,406.00	11.00	21,024.00
2019	6.0	38,490.00	10.90	21,103.00

SOURCE: [HTTPS://WWW2.CALRECYCLE.CA.GOV/LGCENTRAL/ANNUALREPORTING/REVIEWREPORTS](https://www2.calrecycle.ca.gov/LGCENTRAL/ANNUALREPORTING/REVIEWREPORTS), ACCESSED JUNE 2022.

As shown, both the per capita waste generation rate and the total annual disposal tonnage in Martinez has been trending up from 2015 through 2019 and are just under the per-capita disposal rate target (PPD) of 6.1 in 2019

In accordance with AB 939, which required municipalities to aggressively pursue MSW source reduction and recycling, the City continues to strive to meet and exceed all AB 939 goals. The various solid waste management actions adopted by the City include, but are not limited to, recycling and yard waste programs for residents and businesses, public education and public outreach, school recycling, City office recycling programs, and purchasing policies.

REGULATORY SETTING – SOLID WASTE

FEDERAL

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 to address the huge volumes of municipal and industrial solid waste generated nationwide. After several amendments, the Act, as it stands today, governs the management of solid and hazardous waste and underground storage tanks (USTs). RCRA, enacted in 1976, is an amendment to the Solid Waste Disposal Act of

1965. RCRA has been amended several times, most significantly by the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA is a combination of the first solid waste statutes and all subsequent amendments. RCRA authorizes the EPA to regulate waste management activities. RCRA authorizes states to develop and enforce their own waste management programs, in lieu of the federal program, if a state's waste management program is substantially equivalent to, consistent with, and no less stringent than the Federal program.

STATE

California Integrated Waste Management Act (AB 939 and SB 1322)

The California Integrated Waste Management Act of 1989 (AB 939 and SB 1322) requires every city and county to prepare a Source Reduction and Recycling Element to its Solid Waste Management Plan that identifies how each jurisdiction will meet the mandatory State waste diversion goals of 25 percent by 1995 and 50 percent by 2000. The purpose of AB 939 and SB 1322 is to “reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible.” The term “integrated waste management” refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. The Act has established a waste management hierarchy, as follows: Source Reduction; Recycling; Composting; Transformation; and Disposal.

California Integrated Waste Management Board Model Ordinance

Subsequent to the Integrated Waste Management Act, additional legislation was passed to assist local jurisdictions in accomplishing the goals of AB 939. The California Solid Waste Re-use and Recycling Access Act of 1991 (§42900-42911 of the Public Resources Code) directs the California Integrated Waste Management Board (CIWMB) to draft a “model ordinance” relating to adequate areas for collecting and loading recyclable materials in development projects. The model ordinance requires that any new development project, for which an application is submitted on or after September 1, 1994, include “adequate, accessible, and convenient areas for collecting and loading recyclable materials.” For subdivisions of single family detached homes, recycling areas are required to serve only the needs of the homes within that subdivision.

California Mandatory Commercial Recycling Law (AB 341)

Assembly Bill (AB) 341 directed CalRecycle to develop and adopt regulations for mandatory commercial recycling. CalRecycle initiated formal rulemaking with a 45-day comment period beginning Oct. 28, 2011. The final regulation was approved by the Office of Administrative Law on May 7, 2012. The purpose of AB 341 is to reduce GHG emissions by diverting commercial solid waste to recycling efforts and to expand the opportunity for additional recycling services and recycling manufacturing facilities in California.

Beginning on July 1, 2012, businesses have been required to recycle, and each jurisdiction has implemented programs that include education, outreach, and monitoring. Jurisdictions were required to start reporting on their 2012 Electronic Annual Report (due August 1, 2013) on their

initial education, outreach, and monitoring efforts, and, if applicable, on any enforcement activities or exemptions implemented by the jurisdiction.

In addition to Mandatory Commercial Recycling, AB 341 sets a statewide goal for 75 percent disposal reduction by the year 2020. This is not written as a 75 percent diversion mandate for each jurisdiction. The 50 percent disposal reduction mandate still stands for cities, counties, and State agencies (including community colleges) under AB 939. CalRecycle continues to evaluate program implementation as it has in the past through the Annual Report review process for entities subject to either AB 939.

Senate Bill 1383 Short-lived Climate Pollutants: Organic Waste Methane Emissions Reductions

In September 2016, Governor Brown signed SB 1383, establishing methane emissions reduction targets in a statewide effort to reduce emissions of short-lived climate pollutants (SLCP) in various sectors of California's economy. The bill codifies the California Air Resources Board's Short-Lived Climate Pollutant Reduction Strategy, established pursuant to SB 605, in order to achieve reductions in the statewide emissions of short-lived climate pollutants. Actions to reduce short-lived climate pollutants are essential to address the many impacts of climate change on human health, especially in California's most at-risk communities, and on the environment.

As it pertains to solid waste, SB 1383 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 law grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that not less than 20 percent of currently disposed edible food is recovered for human consumption by 2025.

Assembly Bill 1826 Mandatory Commercial Organics Recycling

In October 2014 Governor Brown signed AB 1826, requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units (multi-family dwellings are not required to have a food waste diversion program). Organic waste (also referred to as organics) means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. This law phases in the mandatory recycling of commercial organics over time, while also offering an exemption process for rural counties. In particular, the minimum threshold of organic waste generation by businesses decreases over time, which means an increasingly greater proportion of the commercial sector will be required to comply.

Starting on January 1, 2019, businesses that generate four cubic yards or more of commercial solid waste per week shall arrange for organic waste recycling services. By Summer/Fall 2021, if CalRecycle determines that the statewide disposal of organic waste in 2020 has not been reduced by 50 percent of the level of disposal during 2014, the organic recycling requirements on businesses

will expand to cover businesses that generate two cubic yards or more of commercial solid waste per week. Additionally, certain exemptions may no longer be available if this target is not met.

LOCAL

Martinez Municipal Code

Chapter 8.16: Garbage

Chapter 8.16 of the Martinez Municipal Code contains specific requirements related to:

- Pre-collection and storage of solid waste;
- Waste ownership and responsibilities;
- Waste collection;
- Waste disposal; and
- Solid waste handling.

Chapter 8.19: Construction and Demolition Debris Recycling

Chapter 8.19 of the Martinez Municipal Code contains specific requirements related to the applicable thresholds for projects covered by the ordinance and the requirements for the preparation, submission, and implementation of project-specific waste management plans (WMPs). Every residential and non-residential construction and demolition project; every residential renovation project; additions to non-residential buildings or structures of at least 1,000 square feet; and alterations to non-residential buildings or structures with an estimated construction cost of at least \$200,000.00 within the City of Martinez, shall be considered a covered project and shall comply with the diversion requirement and with the other requirements of Section 8.19.040.

Chapter 8.20 - Junked Or Abandoned Vehicles

Chapter 8.20 of the Martinez Municipal Code contains specific requirements related to junked or abandoned vehicles.

Chapter 8.22 - Large Venue and Large Event Recycling

An applicant who wishes to conduct a large event or conduct an event in or at a large venue must apply for and obtain a special event permit from the City. As a condition to the issuance of a permit the applicant must also prepare a recycling plan in the form approved by the City detailing the amount and types of waste anticipated to be generated by the event and a description of the proposed actions or services to be used by the applicant to reduce or recycle the solid waste generated by or at the event.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on the environment associated with Utilities if it would:

- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; and/or
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

IMPACTS AND MITIGATION MEASURES

Impact 4.15-6: General Plan implementation would comply with federal, state, and local management and reduction statutes and regulations related to solid waste, would not generate solid waste in excess of State or local standards or otherwise impair the attainment of solid waste reduction goals, and would not exceed of the capacity of local infrastructure (Less than Significant)

Development under the proposed General Plan may increase the population within the Study Area by approximately 5,150 persons. As described previously, the City of Martinez had an estimated disposal rate of 6.0 PPD per resident in 2019 which was slightly under the per resident disposal rate target (PPD) of 6.1. Assuming disposal rates remain constant throughout the life of the General Plan, the new growth under General Plan Update buildout would result in an increase of approximately 30,900 pounds per day of solid waste (5,150 x 6.0), which equals 15.45 tons per day or 5,639 tons of solid waste per year.

The city's increase in solid waste generation is within the daily permitted capacity of the Keller Canyon landfill. The Keller Canyon landfill currently handles approximately 2,500 tons of waste per day, although the permit allows up to 3,500 tons of waste per day to be managed at the facility. The additional 15.45 tons per day represents approximately 0.44 percent of the available daily capacity. According to the CalRecycle Solid Waste Facility Permit (07-AA-0032), the remaining capacity of the landfill's disposal area is estimated at approximately 63,408,410 million cubic yards, and the estimated date for ceasing operations for the landfill is 2050, which is beyond the General Plan Update buildout year of 2035. Additionally, all development within the city would be required to comply with waste reduction and recycling requirements included in the Martinez Municipal Code including Chapter 8.16 (Solid Waste Management) and Chapter 8.18 (Source Reduction and Recycling) that aim to reduce the amount of solid waste being diverted to the landfill.

While there is adequate permitted landfill capacity to accommodate future growth, the proposed General Plan Update includes policies and implementation measures to further reduce the project's impact on solid waste services. Specifically, Policy OSC-P-6.7 encourages the use of recycled-content construction materials, Policy OSC-P-6.8 promotes the rehabilitation and reuse of buildings, while Policy OSC-P-6.9 supports recycling and composting programs. Additionally, implementation Measure OSC-I-6.1f supports programs that reduce waste, improve recycling rates, divert organic waste from the landfill, and recover edible food as set forth in the Climate Action Plan.

The General Plan Update would not exceed the permitted capacity of the landfill serving the city, and the General Plan complies with regulations related to solid waste. Therefore, impacts to solid waste are **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Open Space and Conservation Element

Policies

- OSC-P-6.7 Encourage use of recycled-content construction materials.
- OSC-P-6.8 Encourage rehabilitation and reuse of buildings whenever appropriate and feasible as an alternative to new construction.
- OSC-P-6.9 Continue supporting recycling and composting programs.

Implementation Measures

- OSC-I-6.1e Continue to support the building material recycling program through education of the public, contractors, and developers.
- OSC-I-6.1f Continue to support programs that reduce waste, improve recycling rates, divert organic waste from the landfill, and recover edible food as set forth in the Climate Action Plan.

Circulation Element

Goals

- C-G-13 Provide safe, sanitary and environmentally responsible solid waste management and recycling, and increase opportunities for recycling through education.
- C-G-15 Provide adequate public infrastructure and services to meet the needs of existing and future development.

Policies

- C-P-13.1 Continue to promote recycling programs throughout Martinez.
- C-P-13.2 Require new construction sites, as required by state law, to provide for salvage, reuse, or recycling of construction and demolition materials.
- C-P-13.3 Require public buildings to incorporate on-site storage facilities for recyclable materials.
- C-P-8.4 Encourage and increase opportunities for safe disposal of electronic waste and hazardous materials by residents and businesses in Martinez.
- C-P-13.5 Continue efforts to reduce litter throughout the City.
- C-P-15.2 Require all development projects to mitigate their infrastructure service impacts or demonstrate that the infrastructure, public services, and utilities serving the City can

accommodate the increased demand for services, and that service levels for existing users will not be degraded or impaired.

Implementation Measures

C-I-15.5a Continue to participate in green building practices and promote recycling and reuse through outreach and educational programming whenever possible.

C-I-15.5b Consider an outreach program to educate residents and businesses about the use of more durable, local and low-impact goods.

C-I-13.5c Consider the inclusion of a municipal purchasing policy to reduce the purchase of disposable items, such as bottled water, whenever practical.

C-I-13.5d Continue providing community workshops on backyard composting and home management of organics programs as funding permits.

C-I-15.1a Periodically review and update the various City master plans for the provision and/or extension of public services to serve existing and future development. These plans include, but are not limited to, the Urban Water Management Plan and the Capital Improvement Program.

C-I-15.1c As part of the development review process, determine the potential impacts of development and infrastructure projects on public infrastructure, and ensure that new development contributes its fair share toward necessary on and off-site infrastructure.

4.15.5 ELECTRIC POWER, NATURAL GAS, AND TELECOMMUNICATIONS

Infrastructure to deliver electricity and natural gas service throughout the City of Martinez is currently in place, and can generally provide these services to new development on request.

ELECTRIC POWER

Residents of the City of Martinez have the option of choosing between two different electricity providers: Marin Clean Energy (MCE) and Pacific Gas & Electric (PG&E). As the primary power provider in Martinez, MCE is the default electricity provider for residents and businesses in the City, while PG&E continues to provide electric delivery, billing services, and power line maintenance (MCE, 2022). Customers may choose to opt out of MCE and return to PG&E as their energy provider.

MCE is a public, not-for-profit electricity provider serving 37 member communities across Contra Costa, Marin, Napa, and Solano counties. MCE provides its customers the choice of having 60 or 100 percent of their electricity supplied from renewable sources such as solar, wind, geothermal, hydroelectric, and bioenergy. MCE procures electricity from a variety of power suppliers who, much like PG&E, get their electricity from a variety of generation sources. At a minimum, 60 percent of the basic “Light Green” option comes from renewable sources. The “Deep Green” program provides electricity from 100 percent renewable sources. MCE reports to the California Public Utilities

4.15 UTILITIES AND SERVICE SYSTEMS

Commission and California Energy Commission on an annual basis to verify the amount of renewable energy procured for its customers.

As stated, residents can also choose to receive electrical services through PG&E. PG&E provides electrical services to residences and businesses throughout much of California. PG&E is one of the nation's largest combined natural gas and electric energy companies, providing electricity to 5.5 million accounts (PG&E, 2022). PG&E maintains approximately 106,681 circuit miles of electric distribution lines and 18,466 circuit miles of interconnected transmission lines.

NATURAL GAS

PG&E provides natural gas service in Martinez. PG&E provides services to 4.5 million natural gas customer accounts and maintains 42,141 miles of natural gas distribution pipelines and 6,438 miles of transmission pipelines.

TELECOMMUNICATIONS

Martinez is served by multiple telecommunications providers. The two largest providers are Xfinity and AT&T, which both provide internet access, telephone, and television services (Highspeedinternet.com, 2022).

REGULATORY SETTING – ELECTRIC POWER, NATURAL GAS, AND TELECOMMUNICATIONS

FEDERAL

Federal Energy Regulation Commission

The Federal Energy Regulatory Commission duties include the regulation of the transmission and sale of electricity and natural gas in interstate commerce, licensing of hydroelectric projects, and oversight of related environmental matters.

STATE

California Public Utilities Commission

Established in 1911, the California Public Utilities Commission (CPUC) regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies. The commission is organized into several advisory units, an enforcement division, and a strategic planning group. SJP, SCE, and SoCalGas are regulated by the CPUC.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project may have a significant impact on the environment associated with utilities and service systems if it would:

- Require or result in the construction of new electric power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

IMPACTS AND MITIGATION MEASURES

Impact 4.15-7: General Plan implementation would not require or result in the construction of new electric power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (Less than Significant)

In regard to electrical, natural gas, and telecommunication services, the Study Area is within the service areas of MCE, PG&E and various telecommunication providers. New growth anticipated by the General Plan Update would require increased electrical, natural gas, and telecommunications services, potentially resulting in the new construction or relocation of facilities. The environmental effects of future expansions of electrical, natural gas, and telecommunication facilities would be evaluated with each development proposal and would require a separate environmental review related to the construction and operation of new electrical, natural gas, and telecommunications infrastructure. Future implementing projects under the General Plan Update would have to coordinate with each utility provider to establish service, provide any necessary extensions of facilities, and comply with regulations in existence at that time. As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Furthermore, these future facilities would be subject to General Plan Update goals and policies intended to protect the environment. Policy C-P-14.1 educates the community on energy conservation and promotes alternative solutions wherever possible. Policy C-P-15.2 requires all development projects to mitigate their infrastructure service impacts or demonstrate that the infrastructure, public services, and utilities serving the City can accommodate the increased demand for services, and that service levels for existing users will not be degraded or impaired. Implementation measure C-I-15.1c requires, as part of the development review process, the City to determine the potential impacts of development and infrastructure projects on public infrastructure, and ensure that new development contributes its fair share toward necessary on and off-site infrastructure. The implementation of existing regulations and General Plan Update goals, policies, and implementation measures would reduce impacts associated with the relocation or construction of new or expanded electrical, natural gas, and telecommunications facilities to a level that is **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Circulation Element

Goals

- C-G-14 Continue to seek economical and dependable ways to serve the community and improve energy efficiency and reduce energy demand wherever possible.

4.15 UTILITIES AND SERVICE SYSTEMS

C-G-15 Provide adequate public infrastructure and services to meet the needs of existing and future development.

Policies

C-P-14.1 Continue to educate the community on energy conservation and promote alternative solutions wherever possible.

C-P-14.4 Support energy efficiency in City operations where practical and feasible.

C-P-15.2 Require all development projects to mitigate their infrastructure service impacts or demonstrate that the infrastructure, public services, and utilities serving the City can accommodate the increased demand for services, and that service levels for existing users will not be degraded or impaired.

Implementation Measures

C-I-14.4a When possible, replace existing equipment with more efficient heating, cooling, computer and lighting systems within City facilities.

C-I-15.1a Periodically review and update the various City master plans for the provision and/or extension of public services to serve existing and future development. These plans include, but are not limited to, the Urban Water Management Plan and the Capital Improvement Program.

C-I-15.1c As part of the development review process, determine the potential impacts of development and infrastructure projects on public infrastructure, and ensure that new development contributes its fair share toward necessary on and off-site infrastructure.

4.15.6 CUMULATIVE IMPACTS

In general, expanded and new utility infrastructure will be needed to serve growth contemplated in the General Plan Update. The environmental effect of providing the utility services is associated with the physical impacts of providing new and expanded facilities. The specific impacts of providing new and expanded facilities cannot be determined at this time, as the General Plan Update does not propose or authorize development nor does it designate specific sites for new or expanded facilities and infrastructure associated with utilities. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the governmental facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan Update. These impacts are described in the relevant chapters (Chapters 4.1 through 4.16) of this Draft EIR. Any future development under the General Plan Update would be required to comply with regulations, policies, and standards included in the General Plan Update, and would be subject to CEQA review as appropriate.

Water: Cumulative water impacts are analyzed in terms of impacts to City and CCWD's water supplies and facilities. Implementation of the General Plan Update would result in increased

population and employment growth within the Study Area, and a corresponding increase in the demand for additional water supplies. It is required that every urban water supplier assess the reliability to provide water service to its customers under normal, dry, and multiple dry water years. As indicated above, the City plans for water supply shortages caused by drought where CCWD limits supply or by emergency failures in conveyance or treatment facilities. The City's water shortage contingency planning takes into account potential supply shortages up to a 50 percent reduction in supply with greater supply shortages addressed through the Emergency Response Plan (ERP).

CCWD's Water Shortage Contingency Plan addresses water management practices for drought and other supply interruption conditions. The Water Shortage Contingency Plan identifies four demand reduction stages. The first and second stages, water alert and water warning, involve voluntary customer demand reduction measures. The third and fourth stages, water emergency and water crisis, impose mandatory water management measures, including allotments and excess use charges. Given the depth of contingency planning that the CCWD and City has developed for water supply shortages in the event of drought conditions, the City would be prepared to reduce water demand to match supply conditions.

While the 2020 UWMP's water use projections are the best available currently, water use projections will be re-evaluated in future UWMP updates (required every five years) and based on the new regulations. As part of future UWMP updates, the City's growth projections and land use allocation would be updated to incorporate the growth anticipated by the General Plan Update and the ability to serve new growth would be included within the supply evaluation.

Future development projects accommodated through implementation of the General Plan Update would be evaluated by the City on a project-by-project basis to determine potential impacts to water supplies and infrastructure. The continued assessment of individual projects for impacts to the water supply system would assure projects would only be approved if adequate water supplies exist at the time of their implementation. All future development would be subject to all applicable federal, State, and local laws, ordinances, and regulations in place for water supply and infrastructure. Further, new development would be required to pay all applicable connection fees and ongoing user fees related to the provision of water services. Therefore, implementation of the General Plan Update would result in **less than significant cumulatively considerable** water supply and infrastructure impacts and this is a **less than significant** impact.

Wastewater: As Martinez continues to develop in the future, there will be an increased need for wastewater services. As described previously under Impact 4.15-3 and Impact 4.15-4, these needs will require that the city and service providers continue to implement phased improvements to the pump stations, sewer mains, and the various wastewater treatment plants to respond to growth.

Wastewater treatment and conveyance facilities would be evaluated at the project-level in association with subsequent development projects. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan Update. As future development and infrastructure projects are considered by the City, each project will be evaluated

for conformance with the General Plan, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

The RWQCB's guides the long term strategy for meeting future discharge and capacity requirements. Given that projected wastewater generation volumes associated with General Plan buildout is not anticipated to exceed the capacity of the wastewater treatment provider, and wastewater treatment and conveyance infrastructure would be evaluated at the project-level in association with subsequent development projects, cumulative wastewater impacts are considered be **less than significant** and the proposed General Plan Update's incremental contribution to cumulative wastewater impacts would be **less than cumulatively considerable**.

Stormwater: Development under the proposed General Plan Update would result in increased areas of impervious surfaces throughout the Study Area, resulting in the need for additional or expanded stormwater drainage, conveyance, and retention infrastructure. The infrastructure and facilities necessary to serve new growth would involve development of some facilities on-site within new development projects, some facilities off-site on appropriately designated land, and may also involve improvements to existing facilities and disturbance of existing rights-of-way. The specific impacts of providing new and expanded drainage facilities cannot be determined at this time, as the General Plan Update does not propose or approve any specific development project nor does it designate specific sites for new or expanded public facilities.

Stormwater drainage and conveyance facilities would be evaluated at the project-level in association with subsequent development projects. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan Update as discussed throughout this Draft EIR, including in Chapters 4.1 through 4.16.

The policies and implementation measures listed under Impact 4.15-5 would further ensure that there is adequate stormwater drainage and flood control infrastructure to serve future development under the General Plan Update, and would ensure that future drainage and flood control infrastructure projects do not result in adverse environmental impacts.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. As such, this is a **less than significant** impact and the proposed General Plan Update's incremental contribution to cumulative wastewater impacts would be **less than cumulatively considerable**.

Solid Waste: The development of future land uses under the proposed General Plan Update would increase solid waste disposal needs and could have the potential to require the construction of new landfill facilities, or expansion of existing facilities.

Future development of projects as contemplated under the proposed General Plan Update may increase the population within the Study Area. As described above, the city's increase in solid waste generation is within the daily permitted capacity of the Keller Canyon landfill. The Keller Canyon landfill currently handles approximately 2,500 tons of waste per day, although the permit allows up to 3,500 tons of waste per day to be managed at the facility. According to the CalRecycle Solid Waste Facility Permit (07-AA-0032), the remaining capacity of the landfill's disposal area is estimated at approximately 63,408,410 million cubic yards, and the estimated date for ceasing operations for the landfill is 2050.

It is the goal of the state of California that not less than 75 percent of solid waste generated be source reduced, recycled, or composted by the year 2020. State agencies and large state facilities are required to divert their solid waste, arrange for recycling and organics recycling services, provide adequate receptacles, signage, education, and staffing to implement the waste and recycling programs, and submit annual reports which include a summary of compliance with the Waste Reduction Act. As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations associated with solid waste. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

The proposed General Plan Update includes actions to further reduce the project's impact on solid waste services, as identified under Impact 4.15-6. As described previously, potential solid waste impacts would be **less than significant** and impacts from the proposed General Plan Update's incremental contribution to cumulative solid waste impacts would be considered **less than cumulatively considerable**.

Electric Power, Natural Gas, and Telecommunications: The development of future land uses under the proposed General Plan Update would increase electrical, natural gas, and telecommunications needs and could have the potential to require the construction of new electrical, natural gas, and telecommunications facilities, or expansion of existing facilities.

Future development of projects as contemplated under the proposed General Plan Update may increase the population within the Study Area. As described above, this would require increased electrical, natural gas, and telecommunications services, potentially resulting in the new construction or relocation of facilities. As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. As such, this is a **less than significant** impact and the proposed General Plan Update's incremental contribution to cumulative electrical, natural gas, and telecommunication services impacts would be **less than cumulatively considerable**.

4.15.7 SIGNIFICANT UNAVOIDABLE IMPACTS

Impacts to utilities and service systems associated with the implementation of the General Plan Update would be **less than significant**. No significant unavoidable impacts to utilities and service systems would occur as a result of the General Plan Update.

4.15.8 REFERENCES

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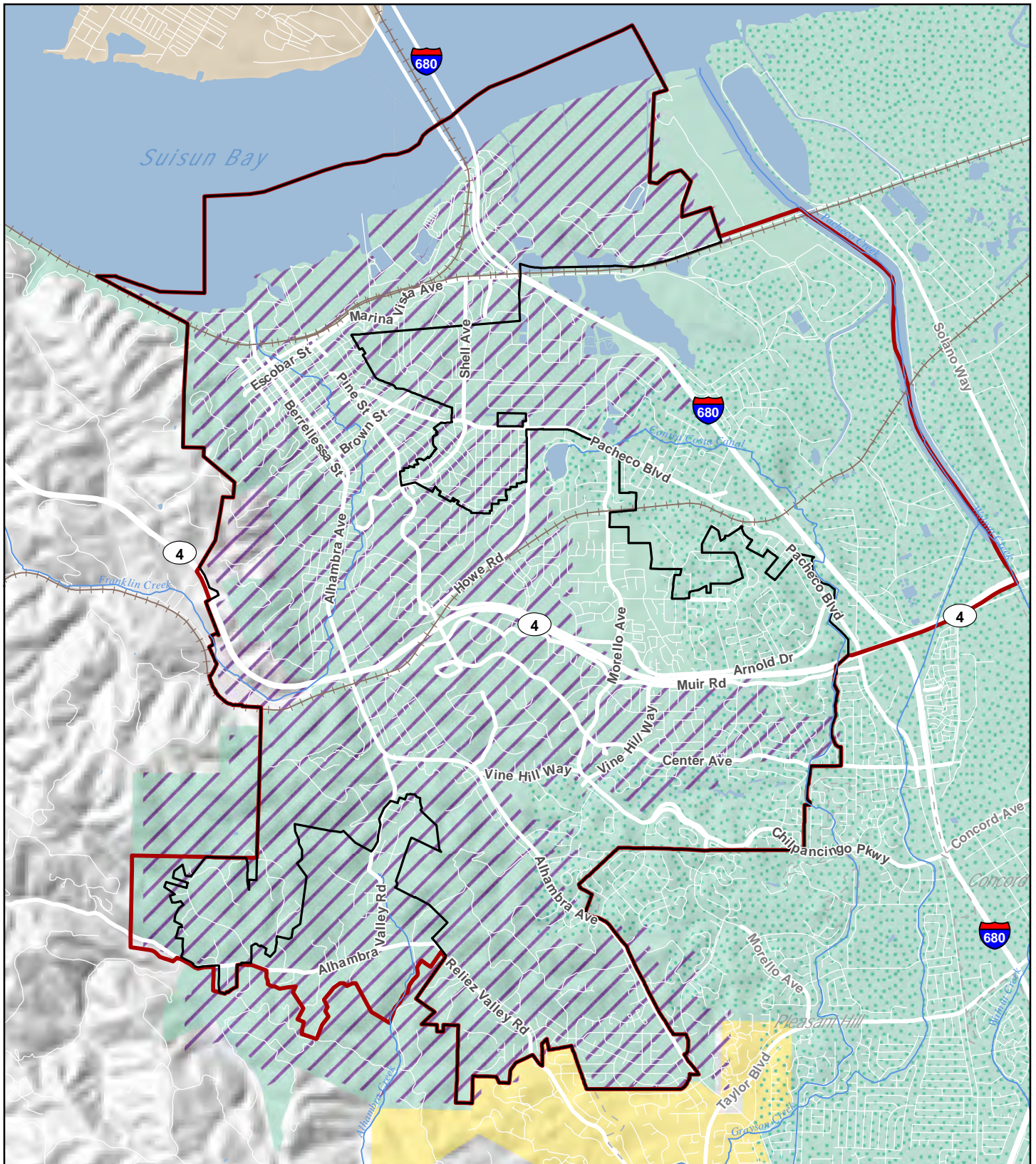
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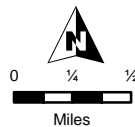


LEGEND

- City of Martinez Water Service
- Contra Costa Water District
- Contra Costa Water District - Treated Water Service Area
- East Bay Municipal Utility District
- Solano County Water

Planning Boundaries

- Martinez City Limits
- Martinez Sphere of Influence
- Other Incorporated Areas



CITY OF MARTINEZ

**Figure 4.15-1.
Water Service Areas**

Sources: California Department of Water Resources; California State Geoportal; Contra Costa County. Map date: June 6, 2022.

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This section analyzes potentially significant impacts related to wildfire that could result from implementation of the General Plan Update. Potential impacts are identified and mitigation measures to address potentially significant impacts are recommended, as necessary. The discussion of fire suppression resources is located in Section 4.13, Public Services and Recreation, of this EIR.

4.16.1 ENVIRONMENTAL SETTING

WILDFIRE HAZARDS

Threat from wildfire hazards is determined based on a number of factors, including fuel loading (vegetation); topography; climatic conditions, such as wind, humidity, and temperature; and the proximity of structures and urban development to fire hazards. Wildland fire hazards are most pronounced in Wildland-Urban Interface (WUI) areas; areas of development that are located within Fire Hazard Severity Zones (FHSZs) adjacent to undeveloped areas. WUI areas typically contain higher amounts of vegetation that can serve as fuel for fires. Generally, the periods of greatest risk for wildland fire are the late summer and early fall when vegetation is at its driest. Human activity, including residential and agricultural burning, campfires, and the use of fireworks can all trigger fires. Natural causes such as lightning strikes may also start fires.

The State has charged the California Department of Forestry and Fire Protection (CalFire) with the identification of FHSZ within State Responsibility Areas (SRA). In addition, CalFire must recommend Very High Fire Hazard Severity Zones (VHFHSZ) identified within any Local Responsibility Areas (LRA). The FHSZ maps are used by the State Fire Marshall as a basis for the adoption of applicable building code standards and are meant to help limit wildfire damage to structures through planning, prevention, and the application of risk reduction measures. The mapped areas, or “zones,” are based on factors such as fuel (e.g., flammable vegetation), slope, and fire weather. There are three zones, based on increasing fire hazard: moderate, high, and very high. Figure 4.16-1 and Figure 4.16-2 show FHSZs in SRAs and LRAs, respectively, that occur within the Study Area.

LOCAL RESPONSIBILITY AREAS

LRAs are concentrated along the western edge of the City boundaries, within and surrounding the Franklin Hills Sub-Area. The open space areas on the western boundary of the City (and into unincorporated Contra Costa County) are designated as a VHFHSZ. The *Contra Costa County Hazard Mitigation Plan* identifies 943 buildings and approximately 2,758 people living in this VHFHSZ. Critical facilities located in this zone include Contra Costa Regional Medical Center, Martinez City Hall, and Alhambra High School.

STATE RESPONSIBILITY AREAS

SRAs are typically areas outside of city limits, but within the City’s sphere of influence (SOI). However, there is a portion of the City identified as a High Hazard area that is located within an SRA; refer to Figure 4.16-1. Immediately adjacent to the City’s western boundary (with a portion in the City’s SOI) a High Hazard FHSZ has been identified with some small areas identified as have a Moderate Hazard.

IDENTIFYING FIRE HAZARDS

Fuel rank is a ranking system developed by CalFire that incorporates four wildfire factors: fuel model, slope, ladder index, and crown index.

The U.S. Forest Service has developed a series of fuel models, which categorize fuels based on burn characteristics. These fuel models help predict fire behavior. In addition to fuel characteristics, slope is an important contributor to fire hazard levels. A surface ranking system has been developed by CalFire, which incorporates the applicable fuel models and slope data. The model categorizes slope into six ranges: 0-10 percent, 11-25 percent, 26-40 percent, 41-55 percent, 56-75 percent and >75 percent. The combined fuel model and slope data are organized into three categories, referred to as surface rank. Thus, surface rank is a reflection of the quantity and burn characteristics of the fuels and the topography in a given area.

The ladder index is a reflection of the distance from the ground to the lowest leafy vegetation for tree and plant species. The crown index is a reflection of the quantity of leafy vegetation present within individual specimens of a given species.

The surface rank, ladder index, and crown index for a given area are combined in order to establish a fuel rank of medium, high, or very high. Fuel rank is used by CalFire to identify areas in the California Fire Plan where large, catastrophic fires are most likely.

CalFire has also been charged with producing mapping datasets that depict fire threat potential throughout California; the fuel rank data is used by CalFire to delineate fire threat based on a system of ordinal ranking. CalFire ranks fire threat based on the availability of fuel and the likelihood of an area burning (based on topography, fire history, and climate). These two factors are combined to create a five-point scale of fire threats ranging from Low to Extreme. The fire threat for the Study Area is shown in Figure 4.16-3. The majority of the Study Area is unranked because it consists of urban development that has no wildfire potential.

However, areas designated as generally having moderate to very high threats are located within, and adjacent to, the western portions of the Study Area, as well as within the northeastern region of the SOI. Further west of the City, into the unincorporated County region, fire threats are higher ranging from high to very high threat levels. The region with moderate to very high fire threat along the western boundary of the Study Area possesses lands that have been designated as a VHFHSZ; the area generally north of State Route 4 and west of Alhambra Avenue. The existing General Plan Land Use Map designates this VHFHSZ as Environmentally Sensitive Land (ESL), Public Permanent Open Space (PPOS), and low to medium density residential (officially Residential Groups 1 and 2 on the existing Land Use Map). The ESL designation applies to areas suitable for open space, agriculture, parks and recreation, trails, and very low density residential. The PPOS designation allows for limited low density residential use, and includes areas within the Alhambra Hills Specific Plan. The Group 1 Residential designation allows only single family structures on sites of 6,000 square feet or more, and Group 2 Residential designation sets a minimum lot size of 4,000 square feet/unit for all future construction, but permits flexibility to allow incremental growth.

HISTORY OF WILDFIRE

Contra Costa County historically experiences wildfires every two to three years. There have been over 51 wildfires in Contra Costa County since the 1950s resulting in loss of lives, property, and natural resources. The most recent large fire was the 396,624-acre Santa Clara Unit (SCA) Lightning Complex Fire in Santa Clara, Alameda, Contra Costa, San Joaquin and Stanislaus Counties in 2020. According to CalFire incident archives, wildfires within the area since 2013 have burned over 400,000 acres.

CalFire records all known fires that occur annually and compiles them into the CalFire Incident Database. The Incident report archives date back to 2013, but some of the larger fires have been recorded since the early 2000s (earliest accessible case is the Schaeffer Fire of 2002). Table 4.16-1 details each major fire within proximity to Martinez, and the number of acres it has burned, since 2013.

The City adopted the *Contra Costa County Hazard Mitigation Plan* (Volume 1 and the City of Martinez's portion of Volume 2) on December 5, 2018. The *Contra Costa County Hazard Mitigation Plan* (County HMP) documents 84 buildings and approximately 254 people in the area of the City identified as a high fire hazard severity zone (HFHSZ), and an additional 943 buildings and approximately 3,758 people living in the VHFHSZ.

4.16 WILDFIRE

TABLE 4.16-1 HISTORY OF WILDFIRES IN MARTINEZ & SURROUNDING AREA

Year	Name	Location	Acres Burned
2021	Diablo Fire	Vasco Road and Camino Diablo, south of Byron, Contra Costa County	128
2020	SCU Lightning Complex	Santa Clara, Alameda, Contra Costa, San Joaquin and Stanislaus Counties	396,624
2020	California Fire	California Street and Springwood Street. East of Rodeo, Contra Costa County	298
2020	Willow Fire	Willow Pass Court and Evora Road, Northeast of Concord, Contra Costa County	100
2019	Sky Fire	Commings Skyway and I-80, south of Crockett, Contra Costa County	150
2019	Cypress Complex Fire	East Cypress Rd and Bethel Island Road, Knightsen, Contra Costa County	200
2019	Forest Fire	Alhambra Avenue and Alhambra Hills Drive, Martinez	50
2019	Fellow Fire	Franklin Canyon Road, Contra Costa County	24
2018	Marsh Fire	Marsh Creek Rd and Bragdon way, east of Mount Diablo, Contra Costa County	247
2018	Alhambra Fire	Off Highway 4 and Alhambra Avenue, Martinez	30
2018	Marsh Fire	Marsh Creek Rd and Bragdon way, east of Mount Diablo, Contra Costa County	247
2018	Valley Fire	Ygnacio Valley Road and Cowell Road, Concord, Contra Costa County	268
2017	Willow Fire	Springwood Ct. & California St, Rodeo, Contra Costa County	370
2017	Deer Complex	Deer Valley Road & Marsh Creek Road, west of Brentwood, Contra Costa County	231
2016	Franklin Fire	Cummings Skyway and Franklin Canyon, 6 miles southeast of Rodeo, Contra Costa County	40
2013	Morgan Fire	Off Morgan Territory Road, Southeast of Clayton, Contra Costa County	3,111
2013	Kirker Fire	South of Pittsburg along Kirker Pass Road, Contra Costa County	492

SOURCE: CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION (CALFIRE), INCIDENTS, [HTTPS://WWW.FIRE.CA.GOV/INCIDENTS/INCIDENTSEARCH?Q=CONTRA+COSTA+COUNTY](https://www.fire.ca.gov/incidents/incidentsearch?q=contra+costa+county), ACCESSED APRIL 21, 2022.

WILDFIRE PREPAREDNESS & PROGRAMS

Due to climate, vegetation, and topography, the Study Area is subject to both wildland and urban fires. As discussed above, the Study Area, contains Moderate to High FHSZs within SRAs and, VHFHSZs within LRAs. Details of fire protection services are provided in Section 4.13, Public Services and Recreation, of this EIR.

Fire services are provided to the City of Martinez by the Contra Costa County Fire Protection District (CONFIRE), and much of the City is served by the Martinez Water Department, which takes into account fire flow needs when determining storage. The Martinez Fire Department became part of

the Contra Costa County Fire Protection District on July 1, 1968. Contra Costa Fire Stations 9, 12, 13 and 14 serve the City of Martinez.

The City has ratified the Contra Costa County Fire Protection District Fire Code, which adopts by reference the 2019 California Fire Code (California Code of Regulations, Title 24, Part 9) as amended by the changes, additions, and deletions set forth in the ordinance adopting the Contra Costa County Fire Protection District Fire Code.

The CONFIRE has entered into mutual aid agreements with other fire departments through the California State Master Mutual Aid Agreement that is administered by the State Office of Emergency Services as well as through the Contra Costa County Fire Chiefs' Mutual Aid Plan. The District is also party to multiple automatic aid agreements with fire agencies that are generally in close proximity.

In addition, as discussed in the 2019 Community Wildfire Protection Plan Contra Costa County, the City of Martinez has formed the Martinez Area Community Emergency Response Team (CERT). Martinez Area CERT began working with the CONFIRE in 2017. CERT conducts weed abatement surveys throughout the high-risk fire zone (SRA and LRA) of Martinez and has given community educational workshops on fire safety and prevention. Martinez Area CERT works in the Firewise area to provide homeowners with the needed education to make their homes and property more fire safe. In 2019, due to the efforts of Martinez Area CERT, the National Fire Protection Association recognized Martinez as a Firewise Community. The newly established Firewise "community" is a 2-mile-long stretch along Alhambra Avenue that represents a WUI.

In order to reduce potential fire threats, the CONFIRE created the Fire Prevention Bureau. The Fire Prevention Bureau provides the highest level of fire prevention services through comprehensive inspections and code enforcement, plan review and engineering services, public education, fire investigations, and exterior hazard control to ensure properties are properly constructed in accordance with local and State codes. The Bureau provides fire prevention services to the cities of Antioch, Clayton, Concord, Lafayette, Martinez, Pleasant Hill, Pittsburg, San Pablo, Walnut Creek, including the unincorporated communities of north Alamo, Bay Point, Clyde, East Richmond Heights, El Sobrante, Montalvan Manor, North Richmond, Pacheco and Tara Hills (CONFIRE(b)).

To further reduce potential fire risks, the CONFIRE has established the Community Risk Reduction unit (CONFIRE(a)). This unit consists of fire prevention specialists who conduct public education programs when not assigned to the Exterior Hazard Control Division. The CONFIRE also dedicates efforts towards Wildfire Preparedness by regulating standards regarding weed abatement and defensible space (CONFIRE(c)).

4.16.2 REGULATORY SETTING

FEDERAL

FY 2001 Appropriations Act

Title IV of the Appropriations Act required the identification of “Urban Wildland Interface Communities in the Vicinity of Federal Lands that are at High Risk from Wildfire” by the U.S. Departments of the Interior and Agriculture.

Disaster Mitigation Act

The Disaster Mitigation Act of 2000 requires that a state mitigation plan, as a condition of disaster assistance, add incentives for increased coordination and integration of mitigation activities at the state level through the establishment of requirements for two different levels of state plans: “Standard” and “Enhanced.” The Disaster Mitigation Act also established a new requirement for local mitigation plans.

National Cohesive Wildland Fire Management Strategy

Under the direction of the Federal Land Assistance, Management, and Enhancement Act of 2009 (the FLAME Act), the Secretary of the Interior and the Secretary of Agriculture created the National Cohesive Wildland Fire Management Strategy report. This report contains a cohesive wildfire management strategy as directed by the FLAME Act and under the advisement of the intergovernmental Wildland Fire Leadership Council. The most recent version of this report is The National Strategy: The Final Phase in the Development of the National Cohesive Wildland Fire Management Strategy (2014).

National Fire Plan (NFP) 2000

The summer of 2000 marked a historic milestone in wildland fire records for the United States. Dry conditions (across the western United States), led to destructive wildfire events on an estimated 7.2 million acres, nearly double the 10-year average. Costs in damages, including fire suppression activities, were approximately 2.1 billion dollars. Congressional direction called for substantial new appropriations for wildland fire management. This resulted in action plans, interagency strategies, and the Western Governor’s Association’s “A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment - A 10-Year Comprehensive Strategy - Implementation Plan”, which collectively became known as the National Fire Plan. This plan places a priority on collaborative work within communities to reduce their risk from large-scale wildfires.

Healthy Forest Initiative (HFI) 2002/Healthy Forest Restoration Act (HFRA) 2003

In August 2002, the Healthy Forests Initiative (HFI) was launched with the intent to reduce the severe wildfires risks that threaten people, communities, and the environment. Congress then passed the Healthy Forests Restoration Act (HFRA) on December 3, 2003 to provide the additional administrative tools needed to implement the HFI. The HFRA strengthened efforts to restore healthy

forest conditions near communities by authorizing measures such as expedited environmental assessments for hazardous fuels projects on federal land. This Act emphasized the need for federal agencies to work collaboratively with communities in developing hazardous fuel reduction projects and places priority on fuel treatments identified by communities themselves in their Community Wildfire Protection Plans.

Department of the Interior Department Manual Part 620

Wildland Fire Management Part 620 of the Department of the Interior Departmental Manual pertains to wildland fire management policies, with the goal of providing an integrated approach to wildland fire management. The guiding principles of the plan emphasize the need for public health and safety considerations, risk management protocols, inter-agency collaboration, and economic feasibility of wildfire management practices, as well as the ecological role of wildfires.

STATE

California Department of Forestry and Fire Protection (CalFire)

Under Title 14 of the Natural Resources of the California Code of Regulations (CCR), CalFire has the primary responsibility for implementing wildfire planning and protection for SRA lands. CalFire develops fire safe regulations and issues fire safe clearances for land within the SRA. The CalFire Resource Management Program manages more than 31 million acres of California's privately-owned wildlands, and provides emergency services in 36 of the State's 58 counties via contracts with local governments.

Under CCR Title 24, *Regulations Development*, the Office of the State Fire Marshal is responsible for promulgating regulations that promote fire and life safety for inclusion into the State Building Codes, including the California Building Code, California Fire Code, California Electrical Code, California Mechanical Code, California Plumbing Code, and California Historical Building Code. The process incorporates a great deal of public participation and is guided by the State Building Standards Law.

Strategic Fire Plan for California

The State Board of Forestry and Fire Protection, along with CalFire, updated the previous 2010 Strategic Fire Plan to reflect current and anticipated needs by incorporating and updating goals and objectives to reflect new priorities and changed conditions. The 2018 Strategic Fire Plan focuses on 1) fire prevention and suppression activities to protect lives, property, and ecosystem services, and 2) natural resource management to maintain the State's forests as a carbon sink to meet California's climate change goals and to serve as important habitat for adaptation and mitigation. It serves as guidance for CalFire and stakeholders who share similar missions and responsibilities towards public safety and fire suppression.

California Wildland-Urban Interface Code

On September 20, 2005, the California Building Standards Commission approved the Office of the State Fire Marshal's emergency regulations amending the California Building Code (CBC) (California Code of Regulations [CCR] Title 24, Part 2). Section 701A of the CBC includes regulations addressing

materials and construction methods for exterior wildfire exposure and applies to new buildings located in SRAs or VHFHSZs in LRAs.

California Fire Code

The 2019 California Fire Code (CCR Title 24, Part 9) establishes regulations to safeguard against the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety for and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout California. The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas.

California State Multi-Hazard Mitigation Plan

The purpose of the State Multi-Hazard Mitigation Plan (SHMP) is to significantly reduce deaths, injuries, and other losses attributed to natural- and human-caused hazards in California. The SHMP provides guidance for hazard mitigation activities emphasizing partnerships among local, state, and federal agencies as well as the private sector.

California Government Code

California Government Code Section 65302.5 requires the State Board of Forestry and Fire Protection to provide recommendations to a local jurisdiction's General Plan fire safety element at the time that the General Plan is amended. While not a direct and binding fire prevention requirement for individuals, General Plans that adopt the Board's recommendations will include goals and policies that provide for contemporary fire prevention standards for the jurisdiction.

California Government Code Section 51175 defines Very High Fire Hazard Severity Zones and designates lands considered by the State to be a very high fire hazard.

California Government Code Section 51182 specifically requires people who own, lease, control, operate, or maintain a building or structure on or adjoining land within a VHFHSZ, to do all of the following: (A) Maintain defensible space of 100 feet from each side and from the front and rear of the structure, (B) Remove that portion of a tree that extends within 10 feet of the outlet of a chimney or stovepipe, (C) Maintain a tree, shrub, or other plant adjacent to or overhanging a building free of dead or dying wood, (D) Maintain the roof of a structure free of leaves, needles, or other vegetative materials, and (E) Prior to constructing a new dwelling or structure that will be occupied or rebuilding an occupied dwelling or occupied structure damaged by a fire in that zone, the construction or rebuilding of which requires a building permit, the owner shall obtain a certification from the local building official that the dwelling or structure, as proposed to be built, complies with all applicable State and local building standards.

California Government Code Section 51189 directs the Office of the State Fire Marshal to create building standards for wildland fire resistance. The code includes measures that increase the likelihood of a structure withstanding intrusion by fire (such as building design and construction requirements that use fire-resistant building materials) and provides protection of structure projections (such as porches, decks, balconies and eaves), and structure openings (such as attics, eave vents, and windows).

California Public Resources Code

The State's Fire Safe Regulations are set forth in Public Resources Code Section 4290, which include the establishment of SRAs.

Public Resources Code Section 4291 sets forth defensible space requirements, which are applicable to anyone that owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining a mountainous area, forest-covered lands, brush covered lands, grass-covered lands, or land that is covered with flammable material (Section 4291(a)).

Public Resources Code Sections 4292-4296 and 14 CCR 1256: Fire Prevention for Electrical Utilities address the vegetation clearance standards for electrical utilities. They include the standards for clearing around energy lines and conductors such as power-line hardware and power poles. These regulations are critical to wildland fire safety because of the substantial number of power lines in wildlands, the historic source of fire ignitions associated with power lines, and the extensive damage that results from power line caused wildfires in severe wind conditions.

Assembly Bill 337

Per AB 337, local fire prevention authorities and CalFire are required to identify VHFHSZs in LRAs. Standards related to brush clearance and the use of fire-resistant materials in fire hazard severity zones are also established.

California Code of Regulations Title 8

In accordance with CCR Title 8, Sections 1270 and 6773 (Fire Prevention and Fire Protection and Fire Equipment), the Occupational Safety and Health Administration (Cal OSHA) establishes fire suppression service standards. The standards range from fire hose size requirements to the design of emergency access roads.

California Code of Regulations Title 14 (Natural Resources)

Division 1.5 (Department of Forestry and Fire Protection), Title 14 of the CCR establishes a variety of wildfire preparedness, prevention, and response regulations.

California Code of Regulations Title 19 (Public Safety)

Title 19 of the CCR establishes a variety of emergency fire response, fire prevention, and construction and construction materials standards.

California Code of Regulations Title 24 (California Building Code)

The CBC contains general building design and construction requirements relating to fire and life safety, structural safety, and access compliance. CBC provisions provide minimum standards to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures and certain equipment.

California Health and Safety Code and Uniform Building Code Section 13000 et seq.

State fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code, which is divided into “Fires and Fire Protection” and “Buildings Used by the Public.” The regulations provide for the enforcement of the UBC and mandate the abatement of fire hazards.

The code establishes broadly applicable regulations, such as standards for buildings and fire protection devices, in addition to regulations for specific land uses, such as childcare facilities and high-rise structures.

California Senate Bill 1241

California Senate Bill 1241 requires that the Safety Element component of city or county general plans to incorporate fire risk related to SRAs and VHFSZ.

LOCAL

Contra Costa County Local Hazard Mitigation Plan

The City adopted the Contra Costa County Hazard Mitigation Plan (Volume 1 and the City of Martinez’s portion of Volume 2) on December 5, 2018. The plan serves as its local hazard mitigation plan and fully addresses the requirements of Government Code section 65302(g)(4). The plan incorporates a process where hazards are identified and profiled, the people and facilities at risk are analyzed, and mitigation actions are developed to reduce or eliminate hazard risk. The implementation of these mitigation actions, which include both short- and long-term strategies, involves planning, policy changes, programs, projects, and other activities. The plan covers the unincorporated county, 25 special purpose districts, and 10 municipalities, including the City of Martinez.

2019 Update Community Wildfire Protection Plan Contra Costa County

The 2019 Update County Wildfire Protection Plan (CWPP) for Contra Costa provides an analysis of wildfire hazards and risk in the WUI in the County. The goal of the plan is to reduce hazards through increased information and education about wildfires, hazardous fuels reduction, actions to reduce structure ignitability and other recommendations to assist emergency preparedness and fire suppression efforts. The CWPP facilitates a coordinated effort between the various stakeholders and is considered a multi-year guiding document that will facilitate the implementation of present and future mitigation efforts. It is important to note that the CWPP is a working document and will need

to be updated regularly and after major “events” such as wildfire, flood, insect infestation, significant new home development, as well as the regional update of the HMP or respective General Plan Safety Elements.

City of Martinez Emergency Operations Plan

The City of Martinez Emergency Operations Plan (EOP) (2009) identifies the City of Martinez’s emergency planning, organization and response policies and procedures. The City’s EOP addresses the City’s responsibilities in emergencies associated with an “all hazards” approach in managing natural disasters and human-caused emergencies; and provides a framework for coordination of response and recovery efforts within the City in coordination with local, State, and federal agencies, while maintaining the flexibility needed to adapt to various situations that arise.

The EOP addresses the following priorities for emergency services response:

- 1) Preserve the life, health and safety of all citizens;
- 2) Protect public and private property;
- 3) Restore order to the community;
- 4) Safeguard the environment; and
- 5) Ensure cost recovery.

The EOP establishes a phased approach for emergency planning and addresses mitigation, preparedness, response, and recovery.

City of Martinez Municipal Code

Title 14, *Emergency Organization and Functions*, declares that the purpose of this ordinance is to provide for the preparation and carrying out of plans for the protection of persons and property within this City in the event of an emergency; the direction of the emergency organization; and the coordination of the emergency functions of this City with all other public agencies, corporations, organizations, and affected private persons. “Emergency” pertains to air pollution, fire, flood, storm, epidemic, riot, or earthquake, or other conditions, including conditions resulting from war or imminent threat of war. Chapter 14.04.030 and 14.04.040 establishes a Disaster Council for the City, and designates Council powers and duties.

Chapter 15.10, *Post-Disaster Safety Assessment Placards*, establishes standard placards to be used to indicate the condition of a structure for continued occupancy after any natural or manmade disaster.

Chapter 15.28, *Fire Prevention Code*, in accordance with Health and Safety Code Section 13869.7, ratifies the Contra Costa County Fire Protection District Fire Code. This chapter adopts, by reference, the 2019 California Fire Code (California Code of Regulations, Title 24, Part 9 [based on the 2018 International Fire Code published by the International Code Council]) as amended by the changes, additions, and deletions set forth in the ordinance adopting the Contra Costa County Fire Protection

District Fire Code for the same triennial cycle. The chief, or the chiefs authorized representative, of the Contra Costa County Fire Protection District is hereby delegated the enforcement of the Fire Prevention Code within the City of Martinez, pursuant to Health and Safety Code Section 13869.7.

The intent of Chapter 22.33, *Hillside Development Regulations*, is to implement the aims of the General Plan Land Use Element, Hill Residential Areas and the Environmental Goals and Policies of the Open Space Element, by:

1. Relating the intensity of development to the limitations imposed by topography, hydrology and geology and avoiding development in areas prone to erosion, flooding and landsliding; and
2. Ensuring that the level of development is consistent with the level of services which reasonably can be provided in hill areas; and
3. Preserving the natural features, environmental quality and scenic character of the hills while providing creative, innovative and safe residential development with a variety of housing types.

The provisions of Chapter 22.33 shall apply to any form of residential development including all sites to be developed as a subdivision or as a planned unit development on properties with any areas of 10% and/or above slope as shown on the Slope Analysis or Seismic and Geologic Hazards Maps of the Open Space, Conservation, Seismic Safety, Scenic Roadway Element of the General Plan or as determined by a slope and hazard area map.

4.16.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact associated with wildfires if it is located in or near state responsibility areas or lands classified as very high fire hazard severity zones and if it will:

- Substantially impair an adopted emergency response plan or emergency evacuation plan;
- Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
- Require the installation of 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; and
- 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.

IMPACTS AND MITIGATION MEASURES

Impact 4.16-1: General Plan implementation has the potential to substantially impair an adopted emergency response plan or emergency evacuation plan as a result of the Study Area including lands located in or near state responsibility areas or lands classified as very high fire hazard severity zones (Less than Significant)

The Study Area contains Moderate to High FHSZs within SRAs, and VHFHSZs within LRAs, as depicted in Figure 4.16-1. The majority of the land area within the VHGHSZs are designated in the proposed Land Use Map as either PPOS or ESL. These areas contain minimal or no existing development. A portion of the VHFHSZ area along Alhambra Avenue and Berallesa Street contains development consisting primarily of low to medium residential uses. These land use categories would not change as part of the General Plan Update and there are few vacant residential parcels or parcels expected to be redeveloped, with the exception of the Telfer Sheldon oil parcel, which would be required to implement fire hazard safety building standards in place at the time of redevelopment.

Development and growth facilitated by the General Plan Update would result in additional residents and businesses in the City, including new residential, commercial office, and industrial uses. Road and infrastructure improvements would occur to accommodate the new growth. Implementation of the General Plan Update would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. Streets within the VHFHSZ that lack two routes for emergency evacuation are identified in the Public Safety Element.

CONFIRE provides fire and emergency response service to the City of Martinez. The CWPP outlines goals and strategies for fire protection services throughout the Contra Costa County Operational Area, including facility needs and improvements, training requirements, and disaster preparedness. The CWPP does not provide a specific evacuation route map, as evacuation measures would be implemented based on the specific emergency and area affected. The General Plan Update would not require or result in revisions to the CWPP.

The General Plan Update does not include any site-specific development. However, future development would be designed, constructed, and maintained in accordance with applicable standards, such as the California Fire Code (Chapter 15.28 of the Municipal Code) and the California Building Code (Chapter 15.04 of the Municipal Code), including vehicular access to ensure that adequate emergency access and evacuation would be maintained. Construction activities that may temporarily restrict vehicular traffic would be required to implement appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures.

The City's emergency preparedness manual provides policies and procedures for the evacuation, dispersal, or relocation of people. Further, the General Plan Update includes policies and implementation measures to address emergency response and evacuation, namely within the Public Safety Element. The aim of Policy PS-P-4.3, of the Public Safety Element, encourages the City to continue to work with CONFIRE to make the City more resilient towards fire hazards. To ensure this

policy is carried out, Implementation Measure PS-I-4.3a states that the City will work with CONFIRE to develop emergency notification and evacuation procedures as part of the City's emergency response plan that is updated at least every 5 years. Under Policy PS-I-5.3c, the City would continue to require access for emergency vehicles and firefighting equipment on all new development and redevelopment projects. The City would also identify the feasibility of constructing additional emergency access improvements for existing developments that do not meet minimum road standards for emergency equipment, such as potential for construction of new or improved emergency access routes. Further, the General Plan Update Public Safety Element confirms that the City has established prearranged emergency response procedures, identified evacuation routes, and executed mutual aid agreements for emergency assistance within the Martinez City limits. Policy PS-P-10.1, and its subsequent Implementation Measures discuss how to best utilize the City Emergency Response Plan, and how to properly maintain it throughout the years.

As part of the site plan and design review process established by the City, future development projects would be reviewed for adequate infrastructure and access as well as consistency with adopted emergency and evacuation plans in order to ensure the safety of residents and the physical environment. among-other environmental issues in order to ensure the safety of City residents and the physical environment. Therefore, the General Plan Update would not substantially impair an adopted emergency response plan or emergency evacuation plan and impacts would be **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Public Safety Element

Goals

- PS-G-4 Protect citizens of Martinez from potential fire hazards.
- PS-G-10 Be prepared to act in emergency situations.
- PS-G-11 Provide effective, efficient, and immediately available Community Preparedness programs response in the event of a natural or man-made disaster.

Policies

- PS-P-4.5 Review, amend and update, at regular intervals, all relevant City codes and ordinances to incorporate the most current knowledge and highest standards for fire safety.
- PS-P-10.1 Use the City's Emergency Response Plan as the guide for emergency management in Martinez.
- PS-P-10.2 Encourage critical public facilities to remain operative during emergencies.
- PS-P-10.4 Encourage coordination of emergency drills with the Contra Costa County Fire Protection District, County Sheriff, and the City Police Department, so that the Plan's implementation during an emergency will happen smoothly.

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- PS-P-11.1 Maintain efficient and effective City government operations in case of any catastrophic emergency or disaster.
 - PS-P-11.2 Maintain current disaster management operations plan and adequately train personnel, including City employees.
 - PS-P-5.4 Work with the Contra Costa Fire Protection District to ensure adequate fire suppression resources in the local responsibility areas, and coordination with CALFIRE for state responsibility areas where wildfires may affect both areas.
 - PS-P-6.4 Prioritize development in areas with sufficient water supply infrastructure and road networks that provide adequate fire equipment access and multiple evacuation routes.
 - PS-P-6.6 Establish mitigations for properties in Very High Fire Hazard Safety Zones with restricted and single points of access including parking restrictions and investigating the feasibility of establishing special assessment districts to improve road capacity, and adequate water supply.

Implementation Measures

- PS-I-4.3a Work with Contra Costa County Fire Protection District to develop emergency notification and evacuation procedures as part of the City's emergency response plan that is updated at least every 5 years.
- PS-I-10.1a Continually evaluate response time and make improvements to equipment and personnel when necessary to ensure goals.
- PS-I-10.1c Evaluate the City's Emergency Operations Center on an annual basis to verify that it is adequately equipped.
- PS-I-10.1d Maintain and update the City's Emergency Response Plan on a regular basis, designating emergency shelters and evacuation routes.
- PS-I-10.1e Evaluate evacuation routes for their capacity, safety, and viability under a range of emergency scenarios.
- PS-I-10.1a Provide relevant community groups and businesses with an overview of the City's Emergency Response Plan and periodically inform them of updates to the Plan when necessary.
- PS-I-11.1a Provide annual training for City employees and update the emergency preparedness plan.
- PS-I-11.1b Conduct seminars and make public presentations on personal, family and neighborhood emergency preparedness when possible.
- PS-I-11.1c Encourage public participation in the Community Emergency Response Team (CERT) program.

- PS-I-11.2a Utilize the City’s Disaster Council as needed to coordinate the utilization of resources and evaluate the safety and condition of structures following wildfire events and other man-made and natural disasters.
- PS-I-5.3c Continue to require access for emergency vehicles and firefighting equipment on all new development and redevelopment projects. The City shall also identify the feasibility of constructing additional emergency access improvements for existing developments that do not meet minimum road standards for emergency equipment, such as:
- Additional vehicle pullouts at key hillside locations.
 - Limiting or restricting on-street parking at key hillside locations.
 - Potential for construction of new or improved emergency access routes.
 - Roadside clearance improvements.
- PS-I-5.3f Ensure the location of new public facilities, such as schools and hospitals, are not located in Fire Hazard Severity Zones, and, if they are, in the event of a fire they can safely evacuate and or operate.
- PS-I-6.1a Where legally permissible, require approval of parcel maps and tentative maps in High and Very High Fire Hazard Severity Zones as identified in Figure 8-4 and 8.5 to be conditioned upon meeting the SRA Fire Safe Regulations and the Fire Hazard Reduction Around Buildings and Structures Regulations regarding emergency access and egress, signing and building numbering, emergency water standards, fuel modification standards, and fire equipment access and defensible space (California Code of Regulations Title 14, Division 1.5, Chapter 7, Subchapter 2, Articles 1-5 and Subchapter 3, Article 3).
- PS-I-6.7a In cooperation with the Contra Costa County Fire Protection District, establish CERT training and public education for residents in areas lacking two access points for evacuation procedures.
- PS-I-9.1a Incorporate the projected impacts of climate change, including sea level rise and extreme heat and storm events, in the City’s Local Hazard Mitigation Plan, the next update of the Housing Element and Emergency Operations Plan, and the Marina Waterfront Plan.
- PS-I-9.1c Incorporate the likelihood of climate change impacts into City emergency response planning and training.

Impact 4.16-2: Due to slope, prevailing winds, and other factors, General Plan implementation has the potential to exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire (Less than Significant)

The Study Area contains Moderate to High FHSZs within SRAs and, VHFHSZs within LRAs, as depicted in Figure 4.16-1. As depicted in Figure 4.16-2, the Study Area also contains areas that are considered to be between low to very high fire threats to people. The Alhambra Valley neighborhood and the unincorporated area to the west of the City of Martinez are located in a High FHSZ within the SRA. Under the existing General Plan, the Moderate to High FHSZs are designated Low Density Residential and Open Space Conservation Use Land. With the General Plan Update, the Moderate to High FHSZs within SRAs are largely under the Alhambra Valley Specific Plan and are designated Very Low and Low Density Residential, Agricultural, and Open Space land uses. Uses such as agriculture and open space preclude new development. However, according to the Contra Costa County Hazard Mitigation Plan, there are 84 buildings and approximately 254 people in this High FHSZ, on areas designated as Very Low and Low Density Residential land uses in the existing General Plan. The General Plan Update does not propose major changes to the types of land uses that could occur within these areas when compared to the existing General Plan; the biggest land use designation change between the existing and proposed plan is that under the proposed General Plan Update, land is specifically designated as Agricultural Land rather than Open Space Conservation Use Land. Comparatively, the General Plan Update dedicates more land to Very Low Residential Density use, which future development of Very Low to Low Density Residential uses could introduce additional structures and people in proximity to areas identified as a High FHSZ.

Implementation of the General Plan Update would not substantially alter the slope, prevailing winds, or other factors that would increase exposure to Martinez residents, employees or visitors to increased pollutant concentrations from wildfire or result in the uncontrollable spread of a wildfire. Depending upon the specific site and associated geographical conditions, future development within a FHSZ could exacerbate wildfire risks. The General Plan Update Public Safety Element includes policies and implementation measures to address potential hazards associated with slope and the spread of wildfire. Policy PS-P-5.2 of the Public Safety Element encourages landscape maintenance programs to reduce potential fire hazards in the hills, wildland areas, and urban interface. In addition, Implementation Measure PS-I-5.3h requires the continued use of construction materials that decrease fire hazards in new developments in hillside areas.

Any future projects contemplated under the General Plan Update would be required to comply with the provisions of federal, State, and local requirements related to wildland fire hazards, including State fire safety regulations associated with wildland-urban interfaces, fire-safe building standards, and defensible space requirements as part of the project's approval process. As future development and infrastructure projects are considered by the City, each project would be evaluated for potential impacts, specific to that project, associated with wildland fire hazards as required under CEQA. Potential development within or near FHSZs, would be required to comply with design and development standards set forth by the Martinez Municipal Code, including Chapter 22.33, *Hillside Development Regulations*, which addresses development of hillsides and requires preparation of a

hazard area map. The Municipal Code also contains Section 22.29.080, *Alhambra Valley Districts-Hillside Development*, which applies to any residential development requiring Design Review or Subdivision approval on parcels with any areas of 10 percent slope or greater within the Alhambra Valley Districts. Therefore, with implementation of the applicable General Plan Update goals, policies, and implementation measures, and compliance with development and fire codes, impacts are considered **less than significant** in this regard.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Public Safety Element

Policies

PS-P-3.1 Consider prohibiting construction of buildings, roads, and utilities in landslide prone hillsides.

Implementation Measures

PS-I-3.1a The City may deny applications for development on excessively steep hillsides where slope stability mitigations are not deemed feasible by the City Engineer and where a significant hazard to City residents may result from construction of a proposed development.

PS-I-3.1b Require new development and redevelopment projects in hillside areas or areas subject to subsidence to submit a geologic investigation and a report by a qualified engineering geologist with application materials. The reports shall address potential for slope failure, soil subsidence, and related geologic events, and recommend measures to minimize hazards.

Policies

PS-P-3.5 New development and redevelopment projects with the potential for geological hazards, such as slope failures or soil subsidence, shall be subject to geotechnical evaluation prior to approval.

PS-P-5.2 Encourage landscaping maintenance programs to reduce potential fire hazards in the hills, wildland areas, and urban interface.

Implementation Measures

PS-I-5.3g Continue to consider the requirement of vegetation management plans in all new development. The City shall also identify the feasibility of other vegetation management options, including:

- Increased landscaping safety through elimination of use of fire-hazardous plants.

- Use of non-prolific landscaping species. Requiring project proponents in hillside areas to evaluate and upgrade as necessary fire flows and water supplies to hillside areas.

PS-I-5.3h Continue to require use of construction materials that decrease fire hazards in new developments in hillside areas, including mandatory use of spark arresters on chimneys. Include development standards per the statewide Fire Safe Regulations (see CCR, Title 14, Sections 1270 et seq.).

Impact 4.16-3: General Plan implementation could 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)

Future development anticipated by the General Plan Update would potentially require the construction and installation of infrastructure, including roads, water and sewer, and power lines to serve increased growth and development. Land uses in the Very High FHSZ within the LRAs, are already developed and are to remain largely unchanged when compared to the existing Land Use Map. The Alhambra Valley neighborhood and the SOI area to the west of the City, are located in a High FHSZ within the SRA, as seen in Figure 4.16-1. Under the existing General Plan, this FHSZ is designated Residential 0-6 (low density) and Open Space Conservation Use Land. Under the proposed General Plan Update, the FHSZ within the SRA is within the Alhambra Valley Specific Plan and is designated Alhambra Valley Estate Residential- Low, Alhambra Valley Estate Residential- Very Low, Alhambra Valley Agricultural, and Alhambra Valley Open Space. Uses such as agriculture and open space preclude new development. However, land designated as residential land uses contain existing infrastructure and could allow for new residential development. According to the Contra Costa County Hazard Mitigation Plan, there are 84 buildings and approximately 254 people in this High FHSZ, on lands designated Very Low and Low Density Residential land uses.

The proposed General Plan Update would allow for an increased number of residential units, which could introduce additional structures and people in proximity to areas identified as FHSZs. To minimize potential fire risks, the General Plan Update proposes Policy PS-P-5.1 of the Public Safety Element, which requires fire safe construction practices, such as fire preventive site design, landscaping and building materials, and installation of sprinklers on new development and redevelopment projects, and Policy PS-P-6.6, which establishes mitigations for properties in VHFHSZs with restricted and single points of access including parking restrictions and investigating the feasibility of establishing special assessment districts to improve road capacity, and adequate water supply. In addition, the General Plan Update contains several more goals to reduce potential fire risk and environmental impacts; these goals are incorporated into the Public Safety Element and are provided below.

New development often requires appropriate utility infrastructure to accommodate increased demand. Future development of utility infrastructure would be subject to the requirements established in Public Resources Code Section 4292, which requires clearing of flammable fuels for a

minimum 10-foot radius from the outer circumference of poles and towers; and Section 4293, which sets basic requirements for clearances around electrical conductors. Furthermore, future development would be required to meet vegetation clearance requirements outlined in Title 14, Section 1104.1(d) of the California Code of Regulations for single overhead facilities. The General Plan Update includes requirements for adequate water supply and water flow availability, emergency access, fire protection services, fire safe design site standards, and ensuring public awareness regarding fire safety. All future development projects would be required to be consistent with the City’s municipal code standards related to development in high fire hazard areas.

The potential for future projects to impact environmental resources to meet compliance with fire development standards (such as fuel breaks and clearance requirements) would require site specific environmental evaluation under CEQA to identify any site-specific impacts. In addition, any development in the City would need to comply with the California Building Code and Public Resource Code to ensure that new developments have access to necessary utilities, and any additional utility construction complies with all code requirements. As demonstrated throughout this EIR, implementation of the various policies and implementation measures contained in the General Plan Update would reduce potential impacts associated with the construction and expansion of infrastructure. Implementation of the General Plan Update policies and implementation measures, combined with local and State requirements, as discussed previously, would ensure that potential wildland fire hazards would not be exacerbated by local infrastructure, and this impact would be reduced to a **less than significant** level.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS

Public Safety Element

Policies

- PS-P-3.3 Discourage, for reasons of public health, the use of septic tanks, tile filter fields, or sewerage ponds in areas where soil conditions constitute a severe limitation for such practices.
- PS-P-5.1 Require fire safe construction practices, such as fire preventive site design, landscaping and building materials, and installation of sprinklers on new development and redevelopment projects.
- PS-P-6.4 Prioritize development in areas with sufficient water supply infrastructure and road networks that provide adequate fire equipment access and multiple evacuation routes.
- PS-P-6.6 Establish mitigations for properties in Very High Fire Hazard Safety Zones with restricted and single points of access including parking restrictions and investigating the feasibility of establishing special assessment districts to improve road capacity, and adequate water supply.

Implementation Measures

- PS-I-2.1b Adopt updated versions of the California Building Code to address new technical and structural requirements that improve safety.
- PS-I-4.1b Review current building and planning codes for any needed updates and require new developments and renovations to comply with the California Building Code, Fire Code, and local ordinances for construction and adequacy of water flow and pressure, ingress/egress and other measures for fire protection.
- PS-I-5.3a: Implement requirements for non-combustible roofs and exterior siding in high fire areas. Continue to enforce regulations related to fire resistant construction, sprinkler systems, and early warning fire detection system installation.
- PS-I-5.3b Through the project review process, continue to ensure that landscaping, lighting, building siting and design, adequate water pressure and peak load storage capacity, and building construction materials reduce the opportunity for fire hazards.
- PS-I-5.3m Maintain fuel breaks and other fire defense improvements on public property and require similar measures for private maintenance of private property.
- PS-I-6.2c Require new development to construct necessary infrastructure improvements to support proposed projects and dedicate to the City or include appropriate ongoing maintenance mechanism, as determined appropriate by the review authority.

Impact 4.16-4: General Plan implementation could 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)

Wildfire can alter the hydrologic response of a watershed to the extent that even modest rainstorms can produce dangerous flash floods and debris flows (U.S. Geological Survey 2021). A number of factors affect the likelihood of downstream flooding or landslide after a fire including basin morphometry, burn severity, soil properties, and rainfall characteristics (U.S. Geological Survey 2021).

The General Plan Update would allow development and improvement projects that would involve some land clearing, grading, and other ground-disturbing activities that could temporarily increase soil erosion rates during and shortly after project construction. All future developments located in or adjacent to wildfire prone areas (i.e., naturally vegetated hillsides) would be required to prepare a slope and hazard area map of the site pursuant to Municipal Code Section 22.33.020. Areas with slopes generally correspond with the areas identified as having greater landslide risk presented in Figure 4.6-5 in Section 4.6, Geology, Soils, and Mineral Resources, and generally correspond with areas that are designated as FHSZs. Within the Study Area, these include the Alhambra neighborhood, the area east of Alhambra between Alhambra Avenue and Reliez Valley Road, and open spaces along the western edge of the Study Area and SOI.

Chapter 22.23 and Section 22.29.080 of the Municipal Code regulate development of hillside areas by relating the number and distribution of dwelling units and other buildings to the topography to prevent disfigurement of the terrain through extensive cut and fill. These regulations are also designed to minimize danger to life and property due to the hazards of fire, flood, soil erosion, seepage and destruction of natural topography and plant material. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. With adherence to the Municipal Code, future development on sloped terrain prone to flooding, landslides, and instability will not have adverse effects on the environment.

As detailed in Section 4.9, Hydrology and Water Quality, future development resulting from implementation of the General Plan Update could increase the potential for flooding in a number of ways: new development and redevelopment could increase storm water velocity leading to off-site flooding; new development and redevelopment could impede or redirect flood flows; and the placement of new or redevelopment projects could create or contribute to runoff which would exceed the capacity of existing or planned stormwater drainage systems. However, as discussed in Section 4.9 of this Draft EIR, all future development and redevelopment projects would be required to comply with applicable federal, State, regional, and local plans, policies, and regulations to address site-specific drainage and potential flooding risks. Specifically, future site-specific development would be required to comply with Municipal Code Chapter 15.30, *Floodplain Management*, which provides land use and development regulations that control filling, grading, dredging, and other development which may increase flood damage. Future development projects would be reviewed by the City to determine if a project site is located within areas of special flood hazards and thus subject to additional provisions set forth in Chapter 15.30. Additionally, construction of storm drainage improvements would occur as part of an overall development or infrastructure project, and would be considered in the environmental review associated with the specific project being proposed (see Section 4.9 for additional details).

Furthermore, the General Plan Update goals, policies, and implementation measures would limit exposure between people and structures with wildfire risks. Public Safety Implementation Measure PS-I-3.1a states that the City may deny applications for development on excessively steep hillsides where slope stability mitigations are not deemed feasible by the City Engineer and where a significant hazard to City residents may result from construction of a proposed development. Public Safety Goal PS-G-6 and its subsequent policies (as provided below) limit development in flood prone areas and require design and construction to minimize flood hazards. Through compliance with local, State, and federal regulations, and compliance with General Plan Update goals and policies, potential exposure of people or structures to significant risks resulting from runoff, post-fire slope instability, or drainage changes would be **less than significant**.

GENERAL PLAN GOALS, POLICIES, AND IMPLEMENTATION MEASURES THAT MINIMIZE POTENTIAL IMPACTS***Public Safety Element******Goals***

- PS-G-3 Reduce risks associated with seismic and subsidence activity.
- PS-G-6 Minimize feasible risks to life and property resulting from flooding and flood induced hazards.
- PS-G-8 Acquisition of funds for construction of flood control measures.

Policies

- PS-P-3.1 Consider prohibiting construction of buildings, roads, and utilities in landslide prone hillsides.
- PS-P-3.5 New development and redevelopment projects with the potential for geological hazards, such as slope failures or soil subsidence, shall be subject to geotechnical evaluation prior to approval.
- PS-P-3.7 Conduct landslide repair operations in conjunction with new development.
- PS-P-6.2 Design new developments to minimize hazards associated with flooding and limit the amount of runoff that contributes to flooding.
- PS-P-6.6 Require construction of storm drainage facilities and Low Impact Development (LID) techniques for new development.
- PS-P-8.1 Aggressively pursue sources of state and federal funding for flood control and storm drainage improvements.

Implementation Measures

- PS-I-3.1a The City may deny applications for development on excessively steep hillsides where slope stability mitigations are not deemed feasible by the City Engineer and where a significant hazard to City residents may result from construction of a proposed development.
- PS-I-3.1d Require the use of drought-tolerant plants in hillside areas to reduce excessive watering of hillsides.
- PS-I-3.7a Where known landslide areas exist, require comprehensive landslide mitigation actions to improve slope stability. This mitigation can include, with affected property owner support, landslide repair extending beyond the boundaries of a proposed development project site. As part of the review and approval of development and public works projects, the planting of vegetation on unstable slopes to protect structures at lower

elevations or other appropriate measures shall be incorporated into the project design. Native plants may be required for landscaping in areas with landslide potential to eliminate the need for supplemental watering and to reduce the risk of landslide.

- PS-I-6.1a Enforce the City's existing flood control ordinance and regulations, amending them as necessary to conform to the National Flood Insurance Program criteria as appropriate.
- PS-I-6.1b Evaluate potential impacts to the flood control system during the environmental review process for new development. Hydrologic studies may be required to help determine potential impacts.
- PS-I-6.1d Limit the amount of impervious coverage by new development or existing developments during improvements to reduce potential hazards of excessive runoff. Strongly encourage pervious pavement for driveways and other hardscape.
- PS-I-6.1f Require individual development projects located in areas subject to flooding to reduce or alleviate flood hazard conditions through preparation of hydrological studies and incorporation of mitigation measures. Individual development project mitigation shall demonstrate, through qualified engineering analyses, that no adverse flooding impacts are created by development on upstream and downstream properties in the project vicinity. Compliance requirements shall be consistent with those prescribed in the Municipal Code, including the preparation of a storm water control plan, and construction requirements set forth in Section 15.30 - Floodplain Management.
- PS-I-6.2a Require new development to demonstrate existing and proposed drainage facilities both on and off site are sized to accommodate project storm runoff and to prevent off-site increase in peak runoff rates and flood elevations.
- PS-I-6.6a As a condition of approval for new development and redevelopment of existing sites, require storm water detention or retention facilities (on- or off-site), if necessary, to prevent flooding due to runoff or where existing storm drainage facilities are unable to accommodate increased storm water drainage.
- PS-I-5.3g Continue to consider the requirement of vegetation management plans in all new development. The City shall also identify the feasibility of other vegetation management options, including:
- Increased landscaping safety through elimination of use of fire-hazardous plants.
 - Use of non-prolific landscaping species.
 - Requiring project proponents in hillside areas to evaluate and upgrade as necessary fire flows and water supplies to hillside areas.

4.16.4 CUMULATIVE IMPACTS

The City of Martinez currently has programs and regulations in place, and works in accordance with regional services to provide adequate emergency response to wildfire threats, as discussed above. The General Plan Update goals, policies, and implementation measures would ensure that the City's emergency access routes and public information regarding emergency facilities and routes are regularly reviewed to ensure that current information is available to the City and the public in the event of an emergency. Important new and expanded critical facilities would also be located in a way to ensure resiliency and functionality in the event of a natural disaster. Implementation of the General Plan Update would have a less than significant impact with regard to this issue.

No specific aspect as a result of implementation of the General Plan Update will substantially alter the slope, prevailing winds, or other factors that would increase exposure to Martinez residents, employees or visitors to increased pollutant concentrations from wildfire or result in the uncontrollable spread of a wildfire. General Plan Update implementation would not exacerbate wildfire risks in VHFHSZs; therefore, these impacts would be less than significant.

Furthermore, the General Plan Update is a long-range policy document that does not include site-specific designs or plans, and does not propose any entitlements for specific developments. However, future development may require extension and development of infrastructure such as roads, water and sewer utilities, and fuel breaks into areas designated as FHSZs. The potential for future projects to impact environmental resources are mitigated through compliance with fire development standards (such as fuel breaks and clearance requirements) and would require site-specific environmental analysis as required under CEQA. As demonstrated throughout this EIR, implementation of the various policies and implementation measures contained in the General Plan Update would reduce potential impacts associated with the construction and expansion of infrastructure. Implementation of the General Plan Update policies and implementation measures combined with local and State requirements, as detailed previously, would ensure that potential wildland fire hazards would not be exacerbated by new local infrastructure, and this impact would be considered less than significant.

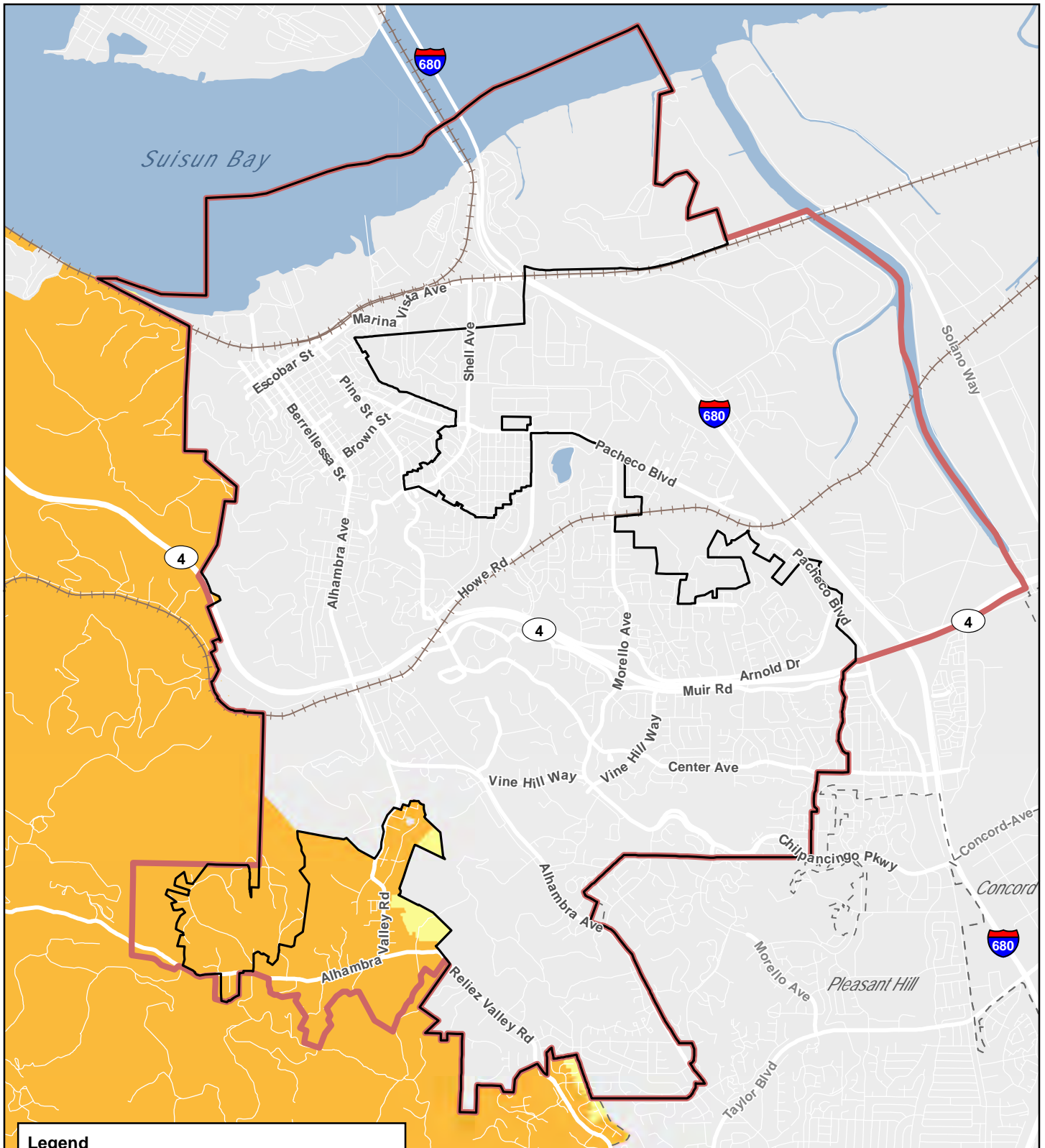
While the General Plan Update cannot state with certainty that future risks associated with post-fire flooding and debris flow would not occur in the Study Area, implementation of the General Plan Update would not exacerbate this risk. Implementation of General Plan Update policies and implementation measures, as well as compliance with the City's Municipal Code, would reduce this risk to the greatest extent feasible, resulting in an impact that is less than significant as a result of adoption and implementation of the proposed General Plan Update. As a result, the General Plan's incremental contribution to cumulative wildfire impacts would be **less than cumulatively considerable**.

4.16.5 SIGNIFICANT UNAVOIDABLE IMPACTS

Wildfire impacts associated with the implementation of the General Plan Update would be **less than significant**. No significant unavoidable wildfire impacts would occur as a result of the General Plan Update.

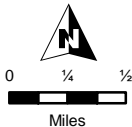
4.16.6 REFERENCES

- CalFire, (Office of the State Fire Marshal), Fire Hazard Severity Zone Maps, available at <https://osfm.fire.ca.gov/divisions/community-wildfire-preparedness-andmitigation/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/>, accessed April 27, 2022.
- California Department of Forestry and Fire Protection (CalFire), *Incidents*, <https://www.fire.ca.gov/incidents/IncidentSearch?q=contra+costa+county> , accessed April 21, 2022.
- City of Martinez, *Citywide Emergency Services Planning/ Response*, available at <https://www.cityofmartinez.org/departments/police/emergency-services>, accessed April 27, 2022.
- Contra Costa County Fire Protection District (CONFIRE(a)), *Community Risk Reduction*, available at <https://cccfd.org/community-risk-reduction/>, accessed April 25, 2022.
- Contra Costa County Fire Protection District (CONFIRE(b)), *Fire Prevention Bureau*, available at <https://cccfd.org/fire-prevention/>, accessed April 25, 2022.
- Contra Costa County Fire Protection District (CONFIRE(c)), *Wildfire Preparedness*, available at <https://cccfd.org/wildfire-prep/>, accessed April 25, 2022.
- United States Geologic Survey (USGS), *Emergency Assessment of Post-Fire Debris-Flow Hazards*, https://landslides.usgs.gov/hazards/postfire_debrisflow/, accessed April 27, 2022.



Legend

- Martinez City Limits
- Martinez Sphere of Influence
- Other Incorporated Areas
- Very High Hazard (none within mapped extent)
- High Hazard
- Moderate Hazard

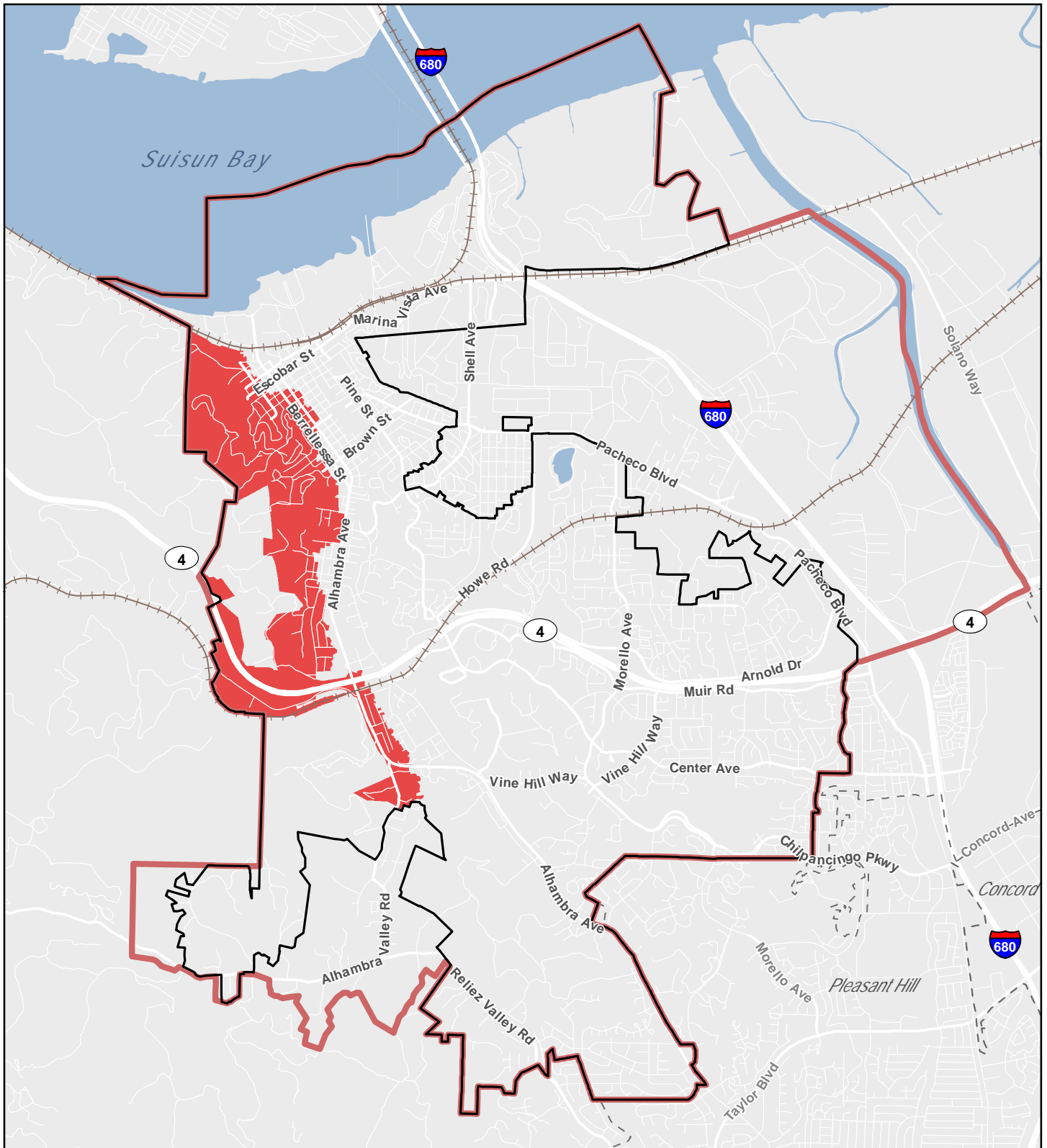


CITY OF MARTINEZ





Figure 4.16-1.
Fire Hazard Severity Zones in
State Responsibility Areas

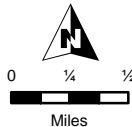
Sources: California Office of the State Fire Marshall, Contra Costa County State Responsibility Areas, adopted 11/2007; California State Geoportal; Contra Costa County GIS. Map date: May 5, 2022.

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Legend

-  Martinez City Limits
-  Martinez Sphere of Influence
-  Other Incorporated Areas
-  Very High Fire Hazard Severity Zone

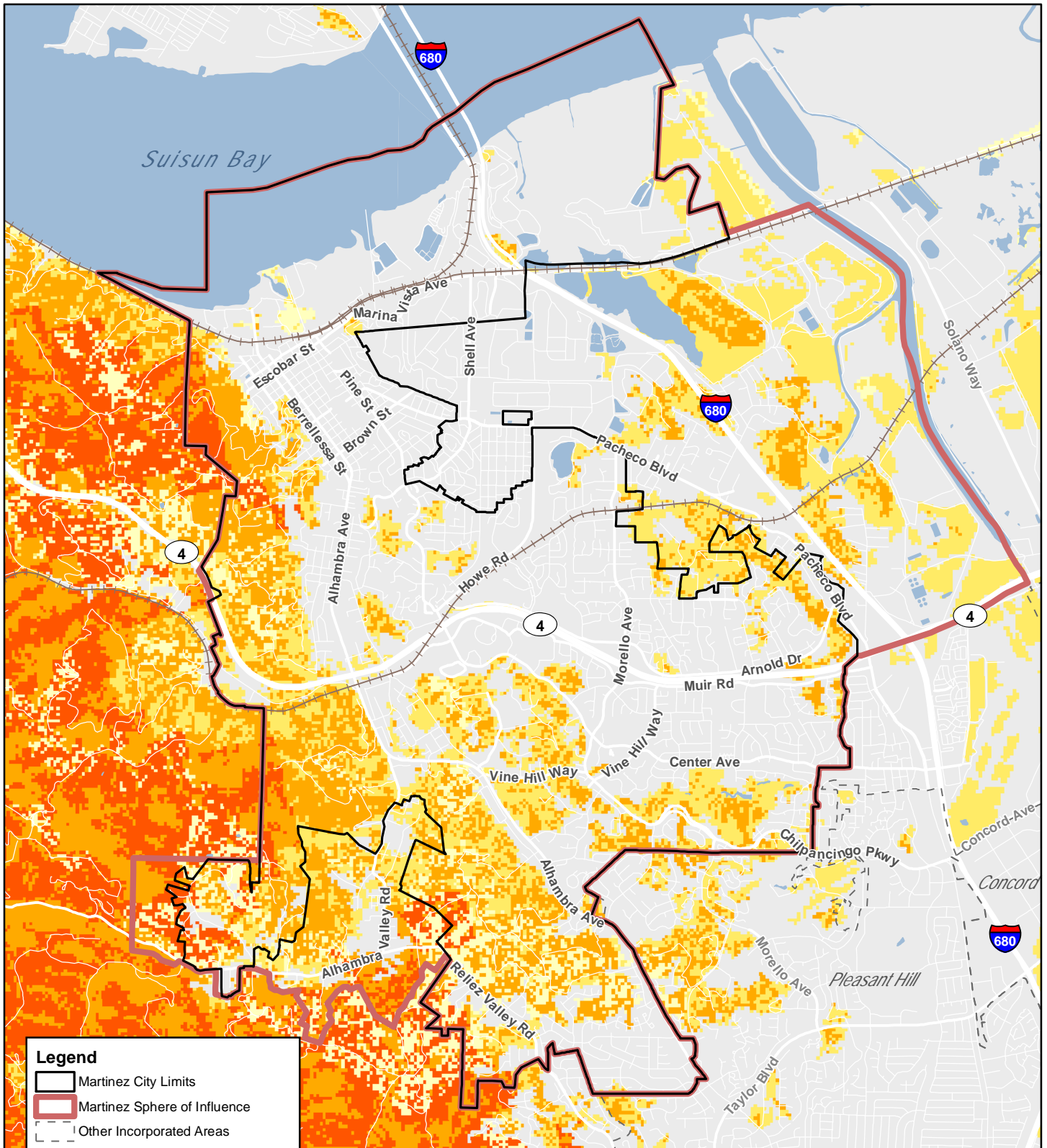


CITY OF MARTINEZ

Figure 4.16-2.
Very High Fire Hazard Severity Zones
in Local Responsibility Areas

Sources: California Office of the State Fire Marshall, Contra Costa County Local Responsibility Areas, recommended 1/2009; California State Geportal; Contra Costa County GIS. Map date: May 5, 2022.

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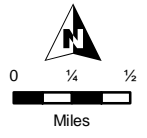
Legend

- Martinez City Limits
- Martinez Sphere of Influence
- Other Incorporated Areas

Fire Threat Class*

- Low Threat
- Moderate Threat
- High Threat
- Very High Threat
- Extreme Threat (none within mapped extent)

* Combines expected fire frequency with potential fire behavior to create 5 threat classes



CITY OF MARTINEZ
Figure 4.16-3. Fire Threat

Sources: California Department of Forestry and Fire Protection, Fire Threat (v14_2); California State Geoportal; Contra Costa County GIS. Map date: May 5, 2022.

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5.1 LONG-TERM IMPLICATIONS OF THE PROPOSED PROJECT

Pursuant to CEQA Guidelines Section 15126.2, this section analyzes short-term uses of the environment and the maintenance and enhancement of long-term productivity. If the project is approved, implementation of the General Plan Update would involve a variety of short- and long-term impacts on a local level. For example, surrounding uses may be temporarily impacted by dust and noise during future construction activities. However, these disruptions would be temporary and may be avoided or lessened to a large degree through implementation of General Plan Update goals, policies, and implementation measures cited in this EIR and through compliance with the Martinez Municipal Code and other relevant regulations; refer to Section 4.0, Environmental Analysis.

Implementation of the General Plan Update would potentially create long-term environmental consequences associated with potential future development. Development associated with implementation of the General Plan Update and the subsequent long-term effects may impact the physical, aesthetic, and human environments. Long-term physical consequences of development include increased vehicle trips, increased noise from project-related mobile (traffic) and stationary (truck ignition and idling, etc.) sources, hydrology and water quality impacts, and increased energy and natural resource consumption. Incremental degradation of local and regional air quality would also occur because of mobile source emissions generated from increased traffic, and stationary source emissions generated from the consumption of natural gas and energy.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

According to CEQA Guidelines Sections 15126(c) and 15126.2(c), an EIR is required to address any significant irreversible environmental changes that would occur should the proposed project be implemented. As stated in CEQA Guidelines Section 15126.2(c):

“Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irrecoverable commitments of resources should be evaluated to assure that such current consumption is justified.”

Determining whether the proposed project would result in significant irreversible effects requires a determination of whether key resources would be degraded or destroyed such that there would be little possibility of restoring them. Irrecoverable commitments of resources should be evaluated to assure that such current consumption is justified.

CONSUMPTION OF NONRENEWABLE RESOURCES

The environmental impacts associated with implementation of the General Plan Update are analyzed in Section 4.0. Future development would consume limited, slowly renewable and non-renewable resources. This consumption would occur during each individual project's construction phase and would continue throughout its operational lifetime. Future development would require a commitment of resources that would include: (1) building materials; (2) fuel and operational materials/resources; and (3) the transportation of goods and persons to and from individual development sites. Construction would require the consumption of resources that are not renewable or which may renew so slowly as to be considered non-renewable. These resources would include the following construction supplies: lumber and other forest products; aggregate materials used in concrete and asphalt; metals; and water. Fossil fuels such as gasoline and oil would also be consumed to power construction vehicles and equipment.

Development accommodated through implementation of the General Plan Update would consume resources which would be similar to those currently consumed within the City (i.e., energy resources such as electricity and natural gas, petroleum-based fuels required for vehicle-trips, fossil fuels, and water). Fossil fuels would represent the primary energy source associated with both construction and ongoing operation, and the existing, finite supplies of these natural resources would be incrementally reduced. Future development operations would occur in accordance with California Code of Regulations (CCR) Title 24, Part 6, which sets forth conservation practices that would limit energy consumption. Nonetheless, the proposed project's energy requirements would represent a long-term commitment of essentially non-renewable resources.

Construction activities associated with implementation of the General Plan Update could release hazardous materials into the environment through reasonably foreseeable upset and accident conditions; refer to Section 4.8, Hazards and Hazardous Materials. All potential demolition, grading, and excavation activities would be subject to the established regulatory framework to ensure that hazardous materials are not released into the environment. Compliance with the established regulatory framework and General Plan Update goals, policies, and implementation measures would protect against a significant and irreversible environmental change resulting from the accidental release of hazardous materials.

In addition, there is the potential that individual future development projects would use and store limited amounts of potentially hazardous materials; refer to Section 4.8. All future development activities requiring the routine use, storage, transport, or disposal of hazardous materials would be subject to all applicable federal, State, and local regulations and standards in place for hazardous materials. Compliance with these regulations and standards would protect against significant and irreversible environmental changes due to the accidental release of hazardous materials.

In conclusion, future construction and operations would result in the irretrievable commitment of limited, slowly renewable, and nonrenewable resources, which would limit the availability of these resource quantities for future generations or for other uses during the life of the individual

developments. It is noted that the continued use of such resources would be on a relatively small scale in a regional context.

IRRETRIEVABLE COMMITMENTS/IRREVERSIBLE PHYSICAL CHANGES

Implementation of the General Plan Update would result in a commitment of land uses designated for the foreseeable future. Land uses and development consistent with the General Plan Update would result in irretrievable commitments by introducing development onto sites that are presently undeveloped. The conversion of agricultural lands to urban uses would result in an irretrievable loss of agricultural land, wildlife habitat, and open space. Additionally, development would physically change the environment in terms of aesthetics, air emission, noise, transportation, open space, and natural resources. These physical changes are irreversible after development occurs. Therefore, the General Plan Update would result in changes in land use within the Study Area that would commit future generations to these uses.

In summary, the General Plan Update includes an extensive policy framework that is designed to address land use and environmental issues to the greatest extent feasible, while allowing growth and economic prosperity for the City. However, even with the policies and implementation measures that would serve to reduce potential significant impacts, the General Plan Update would result in significant irreversible changes. This impact is considered a significant and unavoidable impact under CEQA.

5.3 GROWTH-INDUCING IMPACTS

Section 15126.2(d) of the CEQA Guidelines requires that an EIR evaluate the growth-inducing impacts of a proposed action. A growth-inducing impact is defined by the CEQA Guidelines as:

“The way in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth...It is not assumed that growth in an area is necessarily beneficial, detrimental, or of little significance to the environment.”

Based on the CEQA Guidelines, growth inducement is any growth that exceeds planned growth of an area and results in new development that would not have taken place without implementation of the project. A project can have direct and/or indirect growth inducement potential. Direct growth inducement would result if a project, for example, involved construction of new housing. A project would have indirect growth inducement potential if it established substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises) or if it would involve a construction effort with substantial short-term employment opportunities that would indirectly stimulate the need for additional housing and services to support the new employment demand (*Napa Citizens for Honest Government v. Napa County Board of Supervisors*). Similarly, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. A project providing an

5.0 OTHER CEQA-REQUIRED TOPICS

increased water supply in an area where water service historically limited growth could be considered growth-inducing.

The CEQA Guidelines further explain that the environmental effects of induced growth are considered indirect impacts of the proposed action. These indirect impacts or secondary effects of growth may result in significant, adverse environmental impacts. Potential secondary effects of growth include increased demand on other community and public services and infrastructure, increased traffic and noise, and adverse environmental impacts such as degradation of air and water quality, degradation or loss of plant and animal habitat, and conversion of agricultural and open space land to developed uses.

Growth inducement may constitute an adverse impact if the growth is not consistent with or accommodated by the land use plans and growth management plans and policies for the area affected. Local land use plans provide for land use development patterns and growth policies that allow for the orderly expansion of urban development supported by adequate urban public services, such as water supply, roadway infrastructure, sewer service, and solid waste service.

The General Plan is a long-term plan intended to accommodate projected population, housing, and employment growth, including the appropriate balance among these factors with the necessary public services and infrastructure. The proposed General Plan Update would serve as a comprehensive, long-term plan for the physical development of Martinez. Projected growth is described in Section 4.12, Population and Housing, and the environmental consequences related to the potential growth are fully assessed in each topical section. By definition, the proposed General Plan Update is intended to provide for and address future growth in the City.

Because the proposed General Plan Update provides a framework for development through its Land Use Map, land use designations, goals, policies, and implementation measures, it would directly induce population and employment growth in the Martinez Study Area by designating land for development that is more intense, in some instances, than current designations allow. The analysis of the indirect growth-inducing impacts for the proposed General Plan Update focuses on the following factors: inducement of unanticipated population growth; encouragement of economic growth that leads to jobs and housing growth; elimination of obstacles to population growth; and resulting service, facility, or infrastructure demands in excess of existing and planned growth.

The General Plan Update accommodates future growth in Martinez, including new businesses, expansion of existing businesses, and new residential uses. Infrastructure and services would need to accommodate future growth. The General Plan Update is oriented toward the economic growth of the City, with emphasis given to encourage development of a broader array of businesses, increasing local employment opportunities, and providing residential development as necessary to serve economic growth. The cumulative development scenario addressed in this Draft EIR assumes 2035 buildout conditions within City limits and SOI.

As shown in Table 2-3, buildout of the General Plan Update could yield up to 2,060 new residential units and nearly three million square feet of new non-residential development in the City limits and SOI.

Given the historical and current population, housing, and employment trends, growth in the City, as well as the entire State, is inevitable. The primary factors that account for population growth are natural increase and net migration. Other factors that affect growth include the cost of housing, the location of jobs, the economy, the climate, and transportation. While these factors would likely result in growth in Martinez during the planning period of the proposed General Plan Update, growth will continue to occur based primarily on the demand of the housing market and demand for new commercial, industrial, and other non-residential uses. As future development occurs under the proposed General Plan Update, new roads, infrastructure, and services would be necessary to serve the development, and this infrastructure would accommodate planned growth. However, growth under the General Plan Update would remain within the general growth levels projected Statewide and would not be anticipated to exceed any applicable growth projections or limitations that have been adopted to avoid an environmental effect.

The General Plan Update includes policies and implementation measures that reduce environmental impacts associated with growth, such as air quality, noise, traffic, water supply, and water quality. Additionally, this Draft EIR identifies General Plan policies and implementation measures, where appropriate, that would serve to reduce or eliminate potentially significant impacts associated with specific environmental issues associated with growth. Sections 4.1 through 4.16 provide a discussion of environmental effects associated with development allowed under the General Plan Update.

With implementation of General Plan Update policies and implementation measures intended to guide growth to appropriate areas and provide services necessary to accommodate growth, the land uses allowed under the General Plan Update, the infrastructure anticipated to accommodate proposed land uses, and the goal and policy framework would not induce growth that would exceed adopted thresholds. Therefore, population and housing growth associated with the General Plan Update would result a **less than significant impact**.

5.4 SIGNIFICANT AND UNAVOIDABLE IMPACTS

CEQA Guidelines Section 15126.2(b) requires an EIR to discuss unavoidable significant environmental effects, including those that can be mitigated but not reduced to a level of insignificance. The following significant and unavoidable impacts of the General Plan Update are discussed in Section 4.0. Refer to those discussions for further details and analysis of the significant and unavoidable impacts identified below:

Agricultural Resources

- **Impact 4.2-1:** General Plan implementation would result in the conversion of farmlands, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance or involve other changes in the existing environment which due to their location or nature

could result in the conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.

- Cumulative impact specific to the potential for conversion of conversion of farmlands, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance.

Air Quality

- **Impact 4.3-2:** General Plan implementation could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.
- Cumulative impacts associated with cumulative considerable net increases in criteria pollutants.

Greenhouse Gas Emissions, Climate Change & Energy

- **Impact 4.7-1:** Project implementation could generate greenhouse gas emissions that could have a significant impact on the environment and could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.
- Cumulative impact associated with the generation of greenhouse gas emissions that could have a significant impact on the environment and could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Transportation

- **Impact 4.14-2:** General Plan implementation would conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (a) (Significant and Unavoidable)
- Cumulative impact specific to the inconsistency with CEQA Guidelines Section 15064.3, subdivision (a).

5.5 SUBSTANTIAL ADVERSE EFFECTS ON FISH, WILDLIFE, AND PLANT SPECIES

As described throughout the analysis in the DEIR, the proposed General Plan Update would not result in any significant impacts that would substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal to the environment. As described in greater detail in Section 4.4, Biological Resources, any potentially significant impacts related to plant and animal species would be reduced to a less than significant level through implementation of goals, policies and implementation measures provided

in the City's General Plan Update as well as through adherence to state and federal regulations. Therefore, this is considered a **less than significant** impact.

5.6 SUBSTANTIAL ADVERSE EFFECTS ON HUMAN BEINGS

As described throughout the analysis of this DEIR, the proposed General Plan Update reduces environmental effects including effects that directly and indirectly impact humans through implementation of goals, policies and implementation measures provided in the City's General Plan. However, several environmental impacts would still be considered significant and unavoidable (listed above in Section 5.4). These impacts include considerable increases of criteria pollutants, reduced air quality, and increased greenhouse gas emissions, which may cause substantial adverse effects on humans and the way humans interact with their environment. Therefore, this is considered a **significant and unavoidable** impact.

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6.1 CEQA REQUIREMENTS

CEQA requires that an EIR analyze a reasonable range of feasible alternatives that meet most or all project objectives while reducing or avoiding one or more significant environmental effects of the project. The range of alternatives required in an EIR is governed by a “rule of reason” that requires an EIR to set forth only those alternatives necessary to permit a reasoned choice (CEQA Guidelines Section 15126.6[f]). Where a potential alternative was examined but not chosen as one of the range of alternatives, the CEQA Guidelines require that the EIR briefly discuss the reasons the alternative was dismissed.

Alternatives that are evaluated in the EIR must be potentially feasible alternatives. However, not all possible alternatives need to be analyzed. An EIR must “set forth only those alternatives necessary to permit a reasoned choice.” (CEQA Guidelines, Section 15126.6(f).) The CEQA Guidelines provide a definition for a “range of reasonable alternatives” and, thus limit the number and type of alternatives that need to be evaluated in an EIR.

First and foremost, alternatives in an EIR must be potentially feasible. In the context of CEQA, “feasible” is defined as:

... capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors (CEQA Guidelines 15364).

Pursuant to Section 15126.6(f)(1) of the CEQA Guidelines, factors that may be taken into account when addressing the feasibility of alternatives include, but are not limited to, site suitability, economic viability, availability of infrastructure, general plan consistency, other plan or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). Although these factors do not present a strict limit on the scope of reasonable alternatives to be considered, they help establish the context in which “the rule of reason” is measured against when determining an appropriate range of alternatives sufficient to establish and foster meaningful public participation and informed decision-making.

6.2 ALTERNATIVES CONSIDERED IN THIS EIR

FACTORS GUIDING SELECTION OF ALTERNATIVES

A Notice of Preparation (NOP) was circulated and a public scoping meeting was held during the public review period to solicit recommendations for a reasonable range of alternatives to the proposed project. No specific alternatives were recommended by commenting agencies or the general public during the NOP public review and comment period.

An EIR must only discuss in detail an alternative that is capable of feasibly attaining most of the basic objectives associated with an action, while at the same time avoiding or substantially

lessening any of the significant effects associated with the proposed project. The alternatives to the General Plan Update selected for analysis in the EIR were developed to minimize significant environmental impacts while fulfilling the basic objectives of the project, and address public and elected officials' input with respect to potential land use and growth scenarios that may be appropriate for consideration as part of the General Plan Update. Significant impacts are summarized in Section 5.0 and described in greater detail in Sections 4.1 through 4.16. As described in Section 2.0 (Project Description), the following objectives have been identified for the proposed project:

- Retain Martinez's unique, small-town historic character within its larger suburban context of Central Contra Costa County;
- Maintain and enhance Martinez's vibrant, eclectic downtown, set within pedestrian-oriented neighborhoods made up of varied and traditionally designed homes, as the central focus of the community;
- Ensure neighborhoods will retain their livable mix of quality and varied housing opportunities, convenient and appropriately-scaled commercial areas, and plentiful parks and open spaces;
- Provide a vibrant economy linked to a viable community social structure and by conserving the ecosystem, environmental resources, and built environment that support it;
- Attract visitors due to Martinez's unique small-town character, shops, restaurants, waterfront recreation, surrounding natural beauty and role as the County seat;
- Balance future development with the provision of adequate services, facilities, and infrastructure;
- Collaborate on regional planning efforts;
- Meet the City's range of housing needs;
- Provide for economic development to maintain a high level of City services.; and
- Address new requirements of State law.

SIGNIFICANT AND UNAVOIDABLE IMPACTS

The proposed General Plan Update would result in the following significant and unavoidable impacts, which are described in Sections 4.2, 4.3, 4.7, and 4.14 and Section 5.0:

Agricultural Resources

- **Impact 4.2-1:** General Plan implementation would result in the conversion of farmlands, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance or involve other changes in the existing environment which due to their location or nature could result in the conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.
- Cumulative impact specific to the potential for conversion of conversion of farmlands, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance.

Air Quality

- **Impact 4.3-2:** General Plan implementation could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.
- Cumulative impacts associated with cumulative considerable net increases in criteria pollutants.

Greenhouse Gas Emissions, Climate Change & Energy

- **Impact 4.7-1:** Project implementation could generate greenhouse gas emissions that could have a significant impact on the environment and could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.
- Cumulative impact associated with the generation of greenhouse gas emissions that could have a significant impact on the environment and could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Transportation

- **Impact 4.14-2:** General Plan implementation would conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (a) (Significant and Unavoidable)
- Cumulative impact specific to the inconsistency with CEQA Guidelines Section 15064.3, subdivision (a).

Implementation of the proposed General Plan goals, policies, and implementation measures can reduce all other potentially significant impacts to less than significant levels. This section considers alternatives that could otherwise avoid or minimize these significant and unavoidable impacts. A description of each alternative and a comparative environmental evaluation of the impacts identified for the General Plan Update is provided below.

An EIR must identify an “environmentally superior” alternative and where the No Project Alternative is identified as environmentally superior, the EIR is then required to identify as environmentally superior an alternative from among the others evaluated. Each alternative’s environmental impacts are compared to the proposed project and determined to be environmentally superior, inferior, or neutral. However, as stated above, only those impacts found to be significant and unavoidable for the proposed project are used in making the final determination of whether an alternative is environmentally superior or inferior to the proposed project.

THE ALTERNATIVES ANALYZED IN THIS EIR

Three alternatives to the project were considered. These include: the No Project Alternative, VMT Reduction Alternative, and Agricultural Preservation Alternative. Alternatives were selected for detailed analysis and comparison to the proposed project based on the potential of the alternative to reduce or avoid significant environmental impacts identified throughout this DEIR. These alternatives are described below:

Alternative 1: No Project Alternative. Under Alternative 1, the City would not adopt the General Plan Update. The City’s existing General Plan would continue to be implemented and no changes to the General Plan, zoning, or City policies or programs associated with the project would occur. The Existing General Plan Land Uses are included in Table 6-1, and shown on Figure 6-1.

TABLE 6-1: EXISTING GENERAL PLAN LAND USES

Land Use	City	Sphere	Total
AG	0.09	135.72	135.82
AV-AL	142.13	271.18	413.31
AV-ER-L	0.00	162.23	162.23
AV-ER-VL	126.40	79.35	205.75
AV-OS	56.67	97.85	154.52
C-N	51.99	7.23	59.21
CO-BP	51.78	0.00	51.78
C-R	21.63	0.00	21.63
CRH	8.23	0.00	8.23
CRL-A	115.43	0.00	115.43
CRL-B	82.29	0.00	82.29
CRL-C	108.48	0.00	108.48
CRM	17.78	0.00	17.78
CS-LI	70.17	97.36	167.54
CUC-C-R30	56.34	35.30	91.64
CUC-MC	8.81	0.00	8.81
D-C	19.67	0.00	19.67
D-G	30.34	0.00	30.34
D-S	17.99	0.00	17.99
D-T	16.58	0.00	16.58
E	28.75	9.11	37.85
G	141.33	448.64	589.97
H	71.99	0.00	71.99
HDR	90.84	10.20	101.04
HRR	295.70	55.15	350.85
HS	17.13	0.00	17.13
I-M	595.65	1,296.47	1,892.12
JH	12.71	0.00	12.71
MDR	49.20	0.00	49.20
MDRL	368.33	51.66	420.00
OS-AH	455.99	34.88	490.87
OS-P	1,924.35	442.64	2,366.99
PR	194.15	0.00	194.15

Land Use	City	Sphere	Total
PS	2.01	0.00	2.01
RL	1,214.68	361.59	1,576.27
ROW	27.48	1.34	28.82
RVL	485.52	12.19	497.71
Total	6,978.63	3,610.10	10,588.74

SOURCE: CITY OF MARTINEZ, DE NOVO PLANNING GROUP, 2022.

Alternative 2: Workforce VMT Reduction Alternative. Alternative 2 would adopt the General Plan Update, including the proposed General Plan Land Use Map and updated goals, policies, and implementation measures. However, Alternative 2 would prioritize reductions in workforce VMT through reductions in floor-area-ratios (FAR) throughout the Study Area. For comparison, it is assumed that this Alternative would result in a 30 percent decrease in allowed FAR when compared to the proposed project. This would result in approximately 30 percent less non-residential square feet and jobs, and the same number of new residential dwelling units, and population when compared to the proposed project. This alternative was developed to reduce the severity of impacts related to greenhouse gas emissions, air quality, and VMT impacts, as new workforce development would be reduced, which would help to reduce per capita employment VMT throughout the City.

Alternative 3: Agricultural Preservation Alternative. Alternative 3 would be similar to the proposed project in that it would include a comprehensive update of the General Plan. However, under this alternative, the approximately 4.5 acres of Unique Farmland that is located within the city limits and designated for Low Density Residential uses would instead be designated for agricultural or conservation lands. All other components of the proposed General Plan would remain the same. This alternative would result in the same number of jobs, and a slight reduction in residential units within the Low Density Residential land use category when compared to the proposed General Plan Update.

GROWTH PROJECTIONS BY ALTERNATIVE

A summary of the potential growth, including population growth, housing units, jobs, and the resultant job/housing balance for the project and each Alternative is shown in Table 6-2.

TABLE 6-2: GROWTH POTENTIAL BY ALTERNATIVE

Alternatives	Population	Dwelling Units	Nonresidential Square Footage	Jobs	Jobs per Housing Unit
Proposed General Plan	5,150	2,060	2,818,060	2,564	1.25
Alternative 1: Existing General Plan/No Project	4,605	1,842	2,083,725	1,973	1.07
Alternative 2: VMT Reduction Alternative	5,150	2,060	1,972,643	1,795	0.87
Alternative 3: Agricultural Preservation Alternative	5,083	2,033	2,818,060	2,564	1.26

SOURCE: DE NOVO PLANNING GROUP, 2022.

6.3 ENVIRONMENTAL ANALYSIS

The alternatives analysis provides a summary of the relative impact level of significance associated with each alternative for each of the environmental issue areas analyzed in this EIR that were found to result in significant and unavoidable impacts. Additionally, it should be noted that all alternatives identified would not result in the increase of any impact as to result in a new significant impact. Following the analysis of each alternative, Table 6-3 summarizes the comparative effects of each alternative.

IMPACT COMPARISONS

Adverse Effects on Agricultural Resources

The proposed General Plan Update designates open space and preservation lands within the Study Area to preserve and protect lands capable of, and generally used for agriculture and grazing activities, which also provide important biological functions.

As described in Section 4.2, Impact 4.2-1, impacts to agricultural resources associated with implementation of the General Plan Update would be significant and unavoidable specific to the conversion of farmlands, including Prime Farmland, and Unique Farmland to non-agricultural use.

Alternative 1

Alternative 1 would be virtually the same as the proposed General Plan Update; however, the General Plan policies would not be comprehensively updated. The developed areas under both the proposed General Plan Update and Alternative 1 would be virtually the same from an agricultural land perspective, as both scenarios designate land identified as Important Farmland for low density residential development. Therefore, the significant and unavoidable impact specific to the potential conversion of Important Farmland to a non-agricultural use would be the

same with Alternative 1 when compared to the proposed project. Thus, impacts to agricultural resources associated with Alternative 1 would be **comparable** to the proposed project.

Alternative 2

Alternative 2 would be virtually the same as the proposed General Plan Update in terms of the general development areas, with the exception of reduced development and intensity to allowed FARs. The developed areas under both the proposed General Plan Update and Alternative 2 would be virtually the same from an agricultural land perspective, as both scenarios designate land identified as Important Farmland for low density residential development. Therefore, the significant and unavoidable impact specific to the potential conversion of Important Farmland to a non-agricultural use would be the same with Alternative 2 when compared to the proposed project. Thus, impacts to agricultural resources associated with Alternative 2 would be **comparable** to the proposed project.

Alternative 3

There are approximately 4.5 acres of Important Farmland within the city limits. Implementation and development consistent with the proposed General Plan Update land use designations would result in the loss of the only designated Important Farmland within the city limits. Alternative 3 would be virtually the same as the proposed General Plan Update in all respects, with the exception of preservation of this Unique Farmland. Under Alternative 3, the approximately 4.5 acres of RL (Residential Low) designated land would be designated Open Space Conservation Use Land (CUL) providing for continued use of the site for agricultural purposes and increased protection of the Important Farmland. This would reduce the significant and unavoidable impact associated the loss of this Important Farmland. Therefore, impacts associated with Alternative 3 would be **reduced** in comparison to the proposed project.

Adverse Effects To Air Quality

As described in Section 4.3, Impact 4.3-2, General Plan Update implementation could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.

Additionally, as described in Section 4.3, General Plan Update implementation could result in a cumulative impact on the region's air quality.

Alternative 1

The General Plan Update and Alternative 1 would permit and facilitate the development of new sensitive receptors, such as new homes, in locations near arterial and collector roadways, highways, rail lines, and stationary sources of toxic air contaminant (TAC) emissions. Adherence to BAAQMD guidelines and rules would reduce this impact. However, it is not possible to determine at this stage of the planning process that all impacts could be reduced to a less-than-significant level from larger sources and individual projects. Under both Alternative 1 and the proposed project, future projects that would generate criteria pollutants, TACs, or place sensitive

receptors in the vicinity of existing uses that generate emissions, would be subject to BAAQMD requirements for permitting and screening. Alternative 1 would reduce the total amount of residential and non-residential development, which would reduce overall construction and operational emissions throughout the Study area. However, this Alternative would not provide for the improved land use and transportation efficiencies; therefore, this Alternative would not eliminate the significant and unavoidable air quality impact. This alternative would **slightly reduce** these impacts when compared to the proposed project.

Alternative 2

The General Plan Update and Alternative 2 would also permit and facilitate the development of new sensitive receptors, such as new homes, in locations near arterial and collector roadways, highways, rail lines, and stationary sources of TAC emissions. Implementation of the General Update, goals, policies, and implementation measures, and adherence to BAAQMD guidelines and rules would reduce this impact. However, it is not possible to determine at this stage of the planning process that all impacts could be reduced to a less-than-significant level from larger sources and individual projects. Under both Alternative 2 and the proposed project, future projects that would generate criteria pollutants, TACs, or place sensitive receptors in the vicinity of existing uses that generate emissions, would be subject to BAAQMD requirements for permitting and screening. Under both Alternative 2 and the proposed project, these impacts may remain significant and unavoidable. However, Alternative 2 would reduce the total amount of non-residential development, which would reduce overall operational emissions throughout the Study area. As such, this alternative would **slightly reduce** these impacts when compared to the proposed project.

Alternative 3

The General Plan Update and Alternative 3 would permit and facilitate the development of new sensitive receptors, such as new homes, in locations near arterial and collector roadways, highways, rail lines, and stationary sources of TAC emissions. Overall, development levels under Alternative 3 would be generally comparable to the proposed General Plan Update. Implementation of the General Plan Update goals, policies, and implementation measures, and adherence to BAAQMD guidelines and rules would reduce this impact. However, it is not possible to determine at this stage of the planning process that all impacts could be reduced to a less-than-significant level from larger sources and individual projects. Under both Alternative 3 and the proposed project, future projects that would generate criteria pollutants, TACs, or place sensitive receptors in the vicinity of existing uses that generate emissions, would be subject to BAAQMD requirements for permitting and screening. However, under both Alternative 3 and the proposed project, these impacts would remain significant and unavoidable. As such, this alternative is **comparable** to the proposed project.

Adverse Effects on GHG and Climate Change

Under the proposed project, impacts associated with greenhouse gases and climate change would be significant. The proposed project represents a comprehensive and long-term commitment by

the City to reduce GHGs and the effects of climate change from community-wide and municipal operations over the life of the City's General Plan. The 2009 City of Martinez Climate Action Plan includes goals and measures that would be implemented by the City and by future development projects within the City over the life of the General Plan.

The proposed General Plan Update includes Noise & Air Quality Element Implementation Measure NA-I-9.1a, which requires the City to review and adjust City policies to be consistent with the Climate Action Plan; Implementation Measure NA-I-9.1b, which requires the City to update the CAP to quantify base year GHG emissions; establish GHG reduction targets; adopt policies and programs to achieve GHG reduction targets; and establish an implementation and monitoring program. Implementation Measure NA-I-9.1d, which requires the City to review State goals for GHG reductions and provide a report to the City Council every five years or as deemed necessary; and Implementing Measure NA-I-9.1f, which requires the City to require new development projects to comply with the greenhouse gas reduction strategies and programs of the City's CAP.

The proposed General Plan Update includes a number of goals, policies, and implementation measures that would reduce GHG emissions over the long term. For example, General Plan Goal LU-G-1 requires the City to promote a balanced land use pattern; Policy LU-P-1.3 requires the City to encourage the use of energy-efficient features in new development; Open Space & Conservation Element Goal OSC-G-6 requires reductions in energy, water, and resource consumption; Policy OSC-P-6.2, which requires the City to promote and encourage compliance with sustainable building standards; Circulation Element Goal C-G-1, which encourages safe and convenient access to activities in the community and provide a well-designed local roadway system as well as pedestrian pathways and bicycle lanes; and Goal C-G-7, which requires the City to maintain and update street standards for design, construction and maintenance of "Complete Streets", to name a few.

In order to reduce community-wide GHG emissions, the proposed General Plan Update emphasizes pedestrian-oriented neighborhoods, appropriately-scaled commercial areas with strong pedestrian and bicycle connections, and infill development within the Downtown with a commitment to develop more housing along with amenities and services to meet the day-to-day needs of residents in a pedestrian-friendly environment served by transit. The Land Use Plan and policies and implementation measures emphasize alternative transportation access and multi-modal connectivity throughout the Study Area and into the surrounding areas. The General Plan Update's proposed land use plan and policy framework has been prepared with the intent of reducing GHG emissions associated with future development and improvement projects. Future development would support placement of land uses in proximity to each other and to transit; reducing vehicle trips.

However, there is no guarantee that implementation of the General Plan Update would ensure that the City of Martinez would be consistent with California's long-term climate goal of achieving carbon neutrality by 2045, and under the proposed project, impacts associated with greenhouse gases and climate change would be significant.

Alternative 1

Under Alternative 1, the CAP would continue to be implemented, and the City would continue to make progress towards the GHG reduction targets established by the CAP. However, under Alternative 1, the General Plan Update would not be updated in order to better tie the CAP to the General Plan, and under this scenario, the ongoing implementation of the CAP may not be as effective as it would be under the proposed project. Additionally, as described previously the General Plan Update's proposed land use plan and policy framework has been prepared with the intent of reducing GHG emissions associated with future development and improvement projects. Without these updates and since Alternative 1 would result in similar VMT as the proposed project, this impact would be **slightly worse** under Alternative 1, when compared to the proposed project.

Alternative 2

Under Alternative 2, the CAP would continue to be implemented, and the City would continue to make progress towards the GHG reduction targets established by the CAP. Additionally, under Alternative 2, the General Plan would be updated in order to better tie the CAP to the General Plan, and under this scenario, the ongoing implementation of the CAP would be as effective and generally comparable as it would be under the proposed project. As described previously, the General Plan Update's proposed land use plan has been prepared with the intent of reducing GHG emissions associated with future development and improvement projects. However, under Alternative 2 there would be a decrease in the amount of non-residential development, which would decrease the construction related GHG emissions, and operational workforce VMT. As such, this impact would be **slightly reduced** under Alternative 2, when compared to the proposed project.

Alternative 3

Under Alternative 3, the CAP would continue to be implemented, and the City would continue to make progress towards the GHG reduction targets established by the CAP. Additionally, under Alternative 3, the General Plan would be updated in order to better tie the CAP to the General Plan, and under this scenario, the ongoing implementation of the CAP would be as effective as it would be under the proposed project. As described previously, the General Plan Update's proposed land use plan and policy framework has been prepared with the intent of reducing GHG emissions associated with future development and improvement projects. Under Alternative 3 there would be a slight reduction in the total amount of single family residential uses, which would reduce the long-term operational GHG emissions. However, the reduction would not be significant, as this Alternative would only decrease the residential development potential by 27 residential units. Thus, the significant and unavoidable impact associated with greenhouse gas emissions would continue to occur with this Alternative. This impact would be **comparable** when compared to the proposed General Plan Update.

Adverse Effects from Transportation

As described in Section 4.14 (Transportation and Circulation), the proposed General Plan Update would result in significant and unavoidable impacts related to transportation and circulation.

The proposed General Plan Update emphasizes pedestrian-oriented neighborhoods, appropriately-scaled commercial areas with strong pedestrian and bicycle connections, and infill development within the Downtown with a commitment to develop more housing along with amenities and services to meet the day-to-day needs of residents in a pedestrian-friendly environment served by transit. The Land Use Plan and policies and implementation measures emphasize alternative transportation access and multi-modal connectivity throughout the Study Area and into the surrounding areas. The General Plan Update's proposed land use plan and policy framework has been prepared with the intent of reducing vehicle trips. However, as described in Section 4.14 (Transportation and Circulation), the VMT would be expected to increase under the proposed General Plan Update when compared to existing conditions. As a result, the VMT impacts associated with employment-based uses allowed by the proposed General Plan Update would be considered significant and unavoidable.

Alternative 1

Alternative 1 would result in development of the existing General Plan Land Use Map, and a continuation of the existing General Plan policies. The overall VMT impact would still be significant and unavoidable. Under this Alternative, future development could continue to occur in the City at the similar intensity and locations when compared to the proposed project; however, this alternative would result in fewer developed uses when compared to the proposed General Plan Update. The primary difference would be that under the Alternative 1 the General Plan policies would not be updated, which would limit the City's ability to address sustainability, encourage live/work housing units, encourage new development and redevelopment that meets the community's needs, encourage mixed use developments, and ensure that the City's transportation and circulation system meets the needs of the community and provides complete streets.

The proposed project supports construction of infrastructure improvements, such as bus stops and bike lanes, to encourage alternative modes of transportation and retrofitting of structures to improve energy efficiency and reduce traffic and air quality emissions. The proposed project also includes transportation improvements to improve service levels on the transportation system as described in Section 4.14. These types of improvements could occur under Alternative 1; however, such improvements may be reduced since the proposed project includes specific measures to encourage these types of improvements. Further, under Alternative 1, measures to encourage alternative modes of transportation, improve energy efficiency, and a range of other measures that would provide long-term improvements to the circulation system would not occur. As described previously, the General Plan Update's proposed land use plan has been prepared with the intent of reducing vehicle trips through infill development and mixed-use development opportunities. Implementation of the existing land use plan would not place as much emphasis on infill and development connectivity throughout the Study Area. Therefore, Alternative 1 would

be **slightly worse** than the proposed project, as there would be less long-term benefits related to the transportation and circulation system.

Alternative 2

Alternative 2 would result in development of the proposed General Plan Land Use Map but would result in reduced nonresidential building intensities. The overall VMT per capita would still be expected to be significant and unavoidable. However, under Alternative 2, the reduced workforce may also result in workforce VMT reductions. Alternatives 2 would be required to adhere to the same policy guidance and local, state, and regional air quality and transportation measures as the Proposed General Plan Update. When compared to the proposed General Plan Update, Alternative 2 would **slightly reduce** impacts to transportation and circulation. While the proposed General Plan Update would result in a slightly higher average VMT than Alternative 2, the updated policy guidance includes many circulation policies and implementation measures that may help to reduce VMT overtime and would be roughly similar. It should be noted that the creation of fewer jobs within the Study Area would also result in a reduced jobs-to-housing ratio, which under this Alternative supports only 0.87 jobs per new housing unit developed, which may increase the number of commuters and commute times for city residents due to the reduced local employment opportunities.

Alternative 3

Alternative 3 would be virtually the same as the proposed General Plan Update in all respects, with the exception of approximately 4.5 acres of land that is currently designated RL (Residential Low) would be designated CUL, allowing for the protection of Important Farmland. Under the proposed project and Alternative 3, VMT impacts would remain be significant and unavoidable. Under Alternative 3, 4.5 acres of land currently designated for residential uses would not be developed, resulting in a reduction in the development potential by 27 residential units. Although the reduced residential development potential would result in reduced vehicle trips, the reduction would be minimal. The workforce VMT impacts would remain the same under both the proposed General Plan Update and Alternative 3; therefore, this alternative is **comparable** to the proposed project in terms of impacts related to transportation and circulation VMT.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that an environmentally superior alternative be identified among the alternatives that are analyzed in the EIR. If the No Project Alternative is the environmentally superior alternative, an EIR must also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6(e)(2)). The environmentally superior alternative is that alternative with the least adverse environmental impacts when compared to the proposed project.

A comparative analysis of the proposed General Plan Update and each of the project alternatives is provided in Table 6-3. The table includes a numerical scoring system, which assigns a score of 1 to 5 to each of the alternatives with respect to how each alternative compares to the proposed project in terms of the severity of the environmental topics that were found to be significant in

this EIR. A score of “3” indicates that the alternative would have the same level of impact when compared to the proposed project. A score of “1” indicates that the alternative would have a better (or reduced) impact when compared to the proposed project. A score of “2” indicates that the alternative would have a slightly better (or slightly reduced) impact when compared to the proposed project. A score of “4” indicates that the alternative would have a slightly worse (or slightly increased) impact when compared to the proposed project. A score of “5” indicates that the alternative would have a worse (or increased) impact when compared to the proposed project. The project alternative with the lowest total score is considered the environmentally superior alternative.

As shown in Table 6-3, Alternative 2 (VMT Reduction Alternative) is the environmentally superior alternative when looked at in terms of all potential environmental impacts because it provides the greatest reduction of potential impacts in comparison to the proposed project and the other alternatives. However, it should be noted that all of the alternatives would fail to reduce any significant and unavoidable impacts to a less than significant level.

TABLE 6-3: COMPARISON OF ALTERNATIVES TO THE PROPOSED PROJECT

Significant Environmental Issue	Alternative 1 No Project	Alternative 2 VMT Reduction	Alternative 3 Agricultural Preservation
Agricultural Resources	Same-3	Same-3	Better-1
Air Quality	Slightly better-2	Slightly better-2	Same-3
GHG	Slightly Worse-4	Slightly better-2	Same-3
Transportation and Circulation	Slightly Worse-4	Slightly better-2	Same-3
Overall	Slightly Worse - 13	Better - 9	Slightly Better - 10

Overall, Alternative 2 is the environmentally superior alternative as it is the most effective in terms of overall reductions of impacts compared to the proposed General Plan Update and all other alternatives. As such, Alternative 2 is the environmentally superior alternative for the purposes of this EIR analysis.

SATISFACTION OF PROJECT OBJECTIVES

Alternative 1

As described previously under Alternative 1, the City would continue to implement the existing General Plan and no changes would be made to address updated General Plan Guidelines, or the requirements of State law. Since adoption of the existing General Plan, State legislation has been passed requiring the City to address new safety and circulation requirements in the General Plan and to further address greenhouse gas emissions, energy, safety, and conservation. The General Plan goals, policies, and implementation measures, would not be updated to address the concerns of the city’s residents, decision-makers, and other stakeholders that participated in the update process.

6.0 ALTERNATIVES

Under Alternative 1, the existing General Plan policy framework would still be in effect, which would constitute a status quo approach to land use regulation in the City. The policy framework proposed by the General Plan Update, encourages and aims to achieve a community with a compatible land use pattern that meets the City's long-term housing, employment, and civic needs while reducing impacts created by growth through a self-mitigating approach to the policy framework. Additionally, the proposed General Plan Update was prepared in conformance with State laws and regulations associated with the preparation of general plans, including requirements for environmental protection.

Alternative 1 would not include updated policies, particularly those related to greenhouse gases, community health, equity/environmental justice, and complete streets policies to address safety, access, and mobility for all roadway users, as required by State law. This alternative would not include various policies proposed in the General Plan Update to ensure protection of environmental resources, both at a project level and under cumulative conditions, consistent with the objectives of CEQA.

Alternative 1 fails to meet several of the basic project objectives, including addressing new requirements of State law; and addressing, housing, and employment needs.

Alternative 2

Like the proposed project, Alternative 2 reflects the current goals and vision expressed by city residents, businesses, decision-makers, and other stakeholders through the updated policy document, and addresses new requirements of State law, including climate resiliency planning, environmental justice, and complete streets. Alternative 2 meets most project objectives.

Alternative 2 would provide for less nonresidential building square footage and reduced jobs throughout the Study Area when compared to the proposed project. Much of the larger and contiguous areas that are currently undeveloped, but are anticipated to be developed under the General Plan Update have already undergone detailed planning processes that were specifically meant to guide development in these area (included in adoption of Specific Plans). The General Plan relies on specific plans and the Zoning Ordinance for implementation. While the Land Use Element establishes a broad policy direction, the Zoning Ordinance and Specific Plans describe property-specific guidelines to aid in meeting the General Plan goals. Alternatives proposing land use and development intensity changes in areas of the city that currently have long range planning documents may cause conflict with these previously adopted plans. It is desired by the City for current planning documents to remain useful and consistent over the course of the General Plan's planning period and to ensure existing Specific Plans remain relevant and that design and development standards remain consistent with the visions identified for these special planning areas.

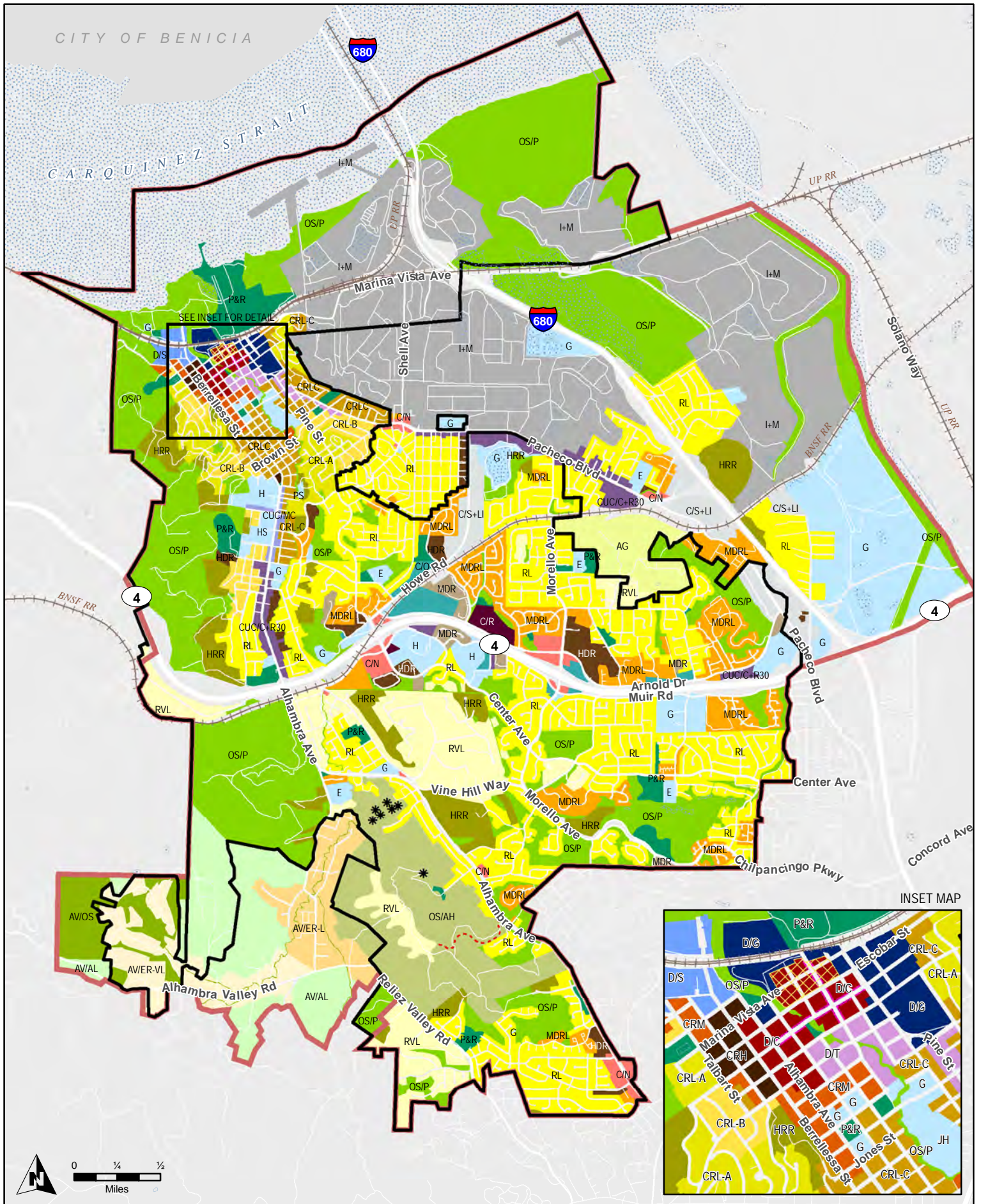
Alternative 2 is the environmentally superior alternative, as it reduces as many environmental effects as possible while still meeting most of the project objectives; however, this alternative would provide less opportunities for economic development and jobs throughout the City, and may not result in adequate job opportunities for local residents as it is anticipated to create only

0.87 jobs per housing unit compared to 1.25 jobs per housing unit under the General Plan Update. Additionally, this alternative would reduce the floor area ratio (FAR) for nonresidential uses and may not be consistent with the development envisioned and identified in the City's long range planning documents including adopted Specific Plans.

Alternative 3

Like the proposed project, Alternative 3 would satisfy all basic project objectives as it would adopt the updated policy document. This alternative would allow for slightly less residential growth than would be allowed under the proposed project and would preserve approximately 4.5 acres of agricultural lands. It is the City's goal to meet the City's range of housing needs; and Alternative 3 would result in slightly fewer single family residential homes, however this reduction would be considered inconsequential when compared to the overall buildout of the General Plan Update.

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Legend

- Martinez City Boundary
- Martinez Sphere of Influence
- Commercial Frontage
- Special Areas
- * Alhambra Hills Remote Homesites
- Alhambra Hills Access Path

Land Use Designations

Downtown

- D/C - Downtown Core
- D/G - Downtown Government
- D/S - Downtown Shoreline
- D/T - Downtown Transition

Central Residential

- CRL-A - Central Residential Low - A
- CRL-B - Central Residential Low - B
- CRL-C - Central Residential Low - C
- CRM - Central Residential Medium
- CRH - Central Residential High

Neighborhood Residential

- HRR - Hillside Rural Residential
- RVL - Residential Very Low
- RL - Residential Low
- MDRL - Residential Medium Low
- MDR - Residential Medium
- HDR - Residential High

Commercial

- C/N - Neighborhood Commercial
- C/R - Regional Commercial
- C/O+BP - Office & Business Park Commercial
- C/S+LI - Light Industrial & Service Commercial

Combined Use Corridors

- CUC/MC - Medical Center Combined Use Corridor
- CUC/C+R30 - Commercial & Multi-Family Residential Combined Use Corridor

Public & Quasi-Public Institutions

- E - Public Elementary School
- JH - Junior High School
- HS - High School
- PS - Private School
- G - Government Facilities
- H - Hospital/HMO Facility

Industrial Refining & Manufacturing

- I+M - Industrial & Manufacturing

Recreation & Open Space Preservation

- P&R - Parks & Recreation
- OS/P - Open Space Preservation
- OS/AH - Open Space/Alhambra Hills Specific Plan

Agricultural Lands

- AG - Agricultural Lands

Alhambra Valley

- AV/ER-VL - Alhambra Valley Estate Residential - Very Low Density 1/AC
- AV/ER-L - Alhambra Valley Estate Residential - Low Density 1-2/AC
- AV/AL - Alhambra Valley Agricultural Lands
- AV/OS - Alhambra Valley Open Space

Data Sources: City of Martinez General Plan Land Use layer 9-7-2016; USGS NHD; USGS National Map Roads; California State Geportal. Map date: July 29, 2022.

CITY OF MARTINEZ
Figure 6-1.
Existing General Plan Land Use Map

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7.1 LEAD AGENCY

City of Martinez

525 Henrietta Street
Martinez, CA 94533

Hector Rojas, Planning Manager, Community Development Department
Ben Schuster, Associate Planner

7.2 PREPARERS OF THE ENVIRONMENTAL IMPACT REPORT

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PUBLIC REVIEW DRAFT

ENVIRONMENTAL IMPACT REPORT (APPENDICES)

FOR THE

MARTINEZ GENERAL PLAN UPDATE
(SCH: 2015052064)

AUGUST 2022

Prepared for:

City of Martinez
Community Development Department
525 Henrietta Street
Martinez, CA 94533

Prepared by:

De Novo Planning Group
1020 Suncastr Lane, Suite 106
El Dorado Hills, CA 95762

D e N o v o P l a n n i n g G r o u p

A Land Use Planning, Design, and Environmental Firm



PUBLIC REVIEW DRAFT
ENVIRONMENTAL IMPACT REPORT
(APPENDICES)

FOR THE

MARTINEZ GENERAL PLAN UPDATE
(SCH: 2015052064)

AUGUST 2022

Prepared for:

City of Martinez
Community Development Department
525 Henrietta Street
Martinez, CA 94533
925-372-3500

Prepared by:

De Novo Planning Group
1020 Suncoast Lane, Suite 106
El Dorado Hills, CA 95762

APPENDIX A: NOP AND COMMENTS

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Notice of Preparation

Martinez General Plan Update

Draft Program Environmental Impact Report

Date: January 28, 2022

To: State Clearinghouse, Agencies, Organizations and Interested Parties

Subject: Notice of Preparation and Scoping Meeting for the Martinez General Plan Update Environmental Impact Report

Scoping Meeting: February 7, 2022, 11:00 a.m.

Comment Period: January 29, 2022 to February 28, 2022

The City of Martinez (City) will serve as Lead Agency in the preparation of a programmatic Environmental Impact Report (EIR) for the City of Martinez General Plan Update (Plan).

The purpose of this notice is (1) to serve as a Notice of Preparation (NOP) of an EIR pursuant to the State CEQA Guidelines Section 15082, (2) to advise and solicit comments and suggestions regarding the scope and content of the EIR to be prepared for the proposed project, and (3) to notice the public scoping meeting. The proposed project is a long-term General Plan consisting of policies that will guide future development activities and City actions. No specific development projects are proposed as part of the Plan. Information regarding the project description, project location, and topics to be addressed in the Draft EIR is provided below. Additional project documents and information are available at the City of Martinez, Community Development Department located at 525 Henrietta Street and on-line at:

https://www.cityofmartinez.org/depts/planning/general_plan_update.asp.

For questions regarding this notice, please contact Hector Rojas, Planning Manager at (925) 372-3524, or by email hrojas@cityofmartinez.org.

Notice of Preparation 30-Day Comment Period

The City, as Lead Agency, requests that responsible and trustee agencies, and the Office of Planning and Research, respond in a manner consistent with Section 15082(b) of the CEQA Guidelines. Pursuant to Public Resources Code Section 21080.4, responsible agencies, trustee agencies and the Office of Planning and Research must submit any comments in response to this notice no later than 30 days after receipt. In accordance with the time limits established by CEQA, the NOP public review period will begin on January 29, 2022 and end on February 28, 2022.

In the event that the City does not receive a response from any Responsible or Trustee Agency by the end of the review period, the City may presume that the Responsible Agency or Trustee Agency has no response to make (State CEQA Guidelines Section 15082(b)(2)). All comments in response to this notice must be submitted in writing at the address below, or via email, by the close of the 30-day NOP review period, which is 5:00 PM on February 28, 2022:

Hector Rojas, Planning Manager
City of Martinez Community Development Department
525 Henrietta Street
Martinez, CA 94533
hrojas@cityofmartinez.org

Background

On May 26, 2015, the City of Martinez issued a Notice of Preparation for the Martinez General Plan Draft EIR. On September 15, 2015, the City issued a Notice of Availability for the City of Martinez 2035 General Plan and Draft Program EIR. The City provided a 45-day comment period for the City of Martinez 2035 General Plan and Draft Program EIR.

In November 2021, the City issued an updated Draft 2035 General Plan for comment. This NOP identifies that the City will be preparing a programmatic Revised Draft Program EIR for the 2035 General Plan. The Revised Draft EIR that will be prepared pursuant to this NOP will replace the September 2015 Draft Program EIR and will replace in full the Draft EIR issued in September of 2015. Pursuant to CEQA Guidelines Section 15088.5(f)(1), the Revised Draft Program EIR will be recirculated in its entirety and reviewers will be required to submit new comments. Given the changes to the Draft 2035 General Plan project and the changes anticipated to the Revised Draft EIR, agencies and interested parties are requested to submit comments in response to this NOP as set forth in CEQA Guidelines Section 15032 to address the scope of the Revised Draft EIR.

Scoping Meeting

The City will hold a scoping meeting to provide an opportunity for agency representatives and the public to assist the City in determining the scope and content of the EIR.

The scoping meeting will be held on February 7, 2022 at 11:00 a.m. via Zoom.

The Zoom meeting link is provided on the next page.

Martinez General Plan EIR Scoping Meeting

February 7, 2022 at 11:00 AM

Join Zoom Meeting: <https://zoom.us/j/96961354230>

Meeting ID: 969 6135 4230

One tap mobile

+16699006833,,96961354230# US (San Jose)

+12532158782,,96961354230# US (Tacoma)

Dial by your location

+1 669 900 6833 US (San Jose)

+1 253 215 8782 US (Tacoma)

+1 346 248 7799 US (Houston)

+1 301 715 8592 US (Washington DC)

+1 312 626 6799 US (Chicago)

+1 929 205 6099 US (New York)

Meeting ID: 969 6135 4230

Find your local number: <https://zoom.us/u/aysqraFvv>

For comments before or after the meeting or additional information, please contact Hector Rojas, Planning Manager at 925-372-3524, or by email hrojas@cityofmartinez.org.

Project Location and Setting

Martinez is a city in central Contra Costa County that has a total area of 13.1 square miles, of which 12.1 square miles is land and one square mile is water. The City of Martinez is the County seat, located on the south side of the Carquinez Strait. The City is bordered by Carquinez Strait/Solano County to the north, the Cities of Pleasant Hill and Concord to the southeast, and unincorporated Contra Costa County to the west and northeast. See Figure 1: Regional Location.

The City of Martinez is located mostly west of the Interstate 680 (I-680), which runs north-south, and is bisected by State Route 4 (SR 4), which runs east-west. Traffic to and from the I-680 corridor is served by SR 4, Pacheco Boulevard, and Marina Vista Avenue. Traffic to and from the SR 4 corridor is served by Pacheco Boulevard, Morello Avenue, Center Avenue-Pine Street, and Alhambra Avenue.

Access to and from the North Bay, including the Counties of Solano and Sonoma, is provided via I-680 (via the Benicia-Martinez Bridge) or State Route 4 via I-80. Access to and from Contra Costa County both east and west is provided by SR 4. Additionally, access to and from the south is provided by I-680 which serves both Contra Costa County and Alameda County.

The City's residential and commercial areas represent a wide variety of land uses, from the intermingling of residential and commercial uses Downtown, to the rich design quality and character of older neighborhoods adjacent to the Downtown, and then the more prevalent twentieth-century suburban land use patterns separating the City's commercial centers. The City provides many advantages of urban living, while at the same time maintaining a connected feeling in its residential neighborhoods along with a distinctive Downtown. Careful planning and community involvement regarding development in the City and the surrounding area has preserved important physical features, such as ridgelines, hillsides, and natural areas, while providing for necessary services, employment, and a diversity of housing opportunities.

Study Area

In addition to the lands within the City boundaries, state law requires that a municipality adopt a General Plan that addresses "any land outside its boundaries which in the planning agency's judgment bears relation to its planning (California Government Code §65300)." This includes the City's Sphere of Influence (SOI), which encompasses both incorporated and unincorporated areas that are related to the City's current and desired land use planning and growth. The SOI includes all lands within the City's jurisdiction as well as small areas within Alhambra Valley and a much larger area east of the City and north of Highway 4 that predominantly includes industrial, open space, and some residential uses, as shown on Figure 2: Proposed Land Use Map.

Project Description

The General Plan Update contains a set of public goals and policies to guide the future development and maintenance of the physical environment in Martinez. In a broad sense, the General Plan Update addresses issues related to sustaining Martinez's quality of life. These issues include enhancing the Downtown as the central focus of the community, protecting residential neighborhoods and environmental resources; balancing future development with the provision of adequate services, facilities and infrastructure; collaborating on regional planning efforts; and providing for economic development to maintain a high level of City services. Upon adoption, the General Plan Update will replace the City's existing General Plan, which was adopted in 1973 with subsequent updates to various elements.

The City is updating the Housing Element, which will address the City's Regional Housing Needs Allocation and the 2023-2031 planning period, in a process separate from the General Plan Update.

The City will implement the General Plan by requiring development, infrastructure improvements, and other projects to be consistent with its policies and by implementing the actions included in the Plan, including subsequent project-level environmental review, as required under CEQA.

State law requires the City to adopt a comprehensive, long-term general plan for the physical development of its planning area. The Plan must include land use, circulation, housing, conservation, open space, noise, and safety elements, and address environmental justice and climate adaptation, as specified in Government Code Section 65302, to the extent that the issues identified by State law exist in the City’s planning area. Additional elements that relate to the physical development of the city may also be addressed in the Plan. The degree of specificity and level of detail of the discussion of each Plan Element need only reflect local conditions and circumstances.

The Martinez General Plan includes a comprehensive set of goals, policies, and implementation measures, as well as a revised Land Use Map (Figure 2).

- A **goal** is a description of the general desired result that the City seeks to create through the implementation of the General Plan.
- A **policy** is a specific statement that guides decision-making as the City works to achieve its goals. Once adopted, policies represent statements of City regulations. The General Plan’s policies set out the standards that will be used by City staff, the Planning Commission, and the City Council in their review of land development projects, resource protection activities, infrastructure improvements, and other City actions. Policies are on-going and don’t necessarily require specific action on behalf of the City.
- An **implementation measure** is an action, procedure, technique, or specific program to be undertaken by the City to help achieve a specified goal or implement an adopted policy. The City must take additional steps to implement each action in the General Plan. An action is something that can and will be completed.

The Martinez General Plan includes the following elements:

Land Use Element

The Land Use Element establishes the framework for the goals, policies, and implementation Programs that will shape the physical form of Martinez over the next 20 years. The Land Use Element addresses the intensity and distribution of land uses and identifies areas of the City where change will be encouraged and those areas where the existing land use patterns will be maintained and enhanced. The Land Use Element addresses how land uses will develop and provides a framework for addressing the potential effect of land use and development decisions on disadvantaged communities.

The Land Use Element establishes the land use designations, including the allowed uses, intensities, and densities of development, established by the Land Use Map, shown in Figure 2, including the Protected Open Space and Parks Overlay (POPO) designation which reflects the overlay adopted by voter initiative (Measure I) in June of 2018. The City has prepared a map book of the proposed Land Use Map that shows the

Land Use Map information in greater detail for the City by sector: view the Land Use Map map book on the City’s website at:

<https://www.cityofmartinez.org/civicax/filebank/blobdload.aspx?t=74372.66&BlobID=28298>

Table 1 shows the total number of parcels and total acreages for each land use designation shown on the proposed Land Use Map.

Table 1: Draft 2035 General Plan Land Use Designations by Area, Acreage, and POPO Overlay

Land Use Designation	Area (Acres)			
	City Limits Only	Sphere of Influence Only	Total	POPO
Alhambra Valley Agricultural (AV-AL)	157.51	287.90	445.41	-
Alhambra Valley Estate Residential – Low (AV-ERL)	-	160.96	160.96	-
Alhambra Valley Estate Residential - Very Low (AV-ERVL)	134.42	70.48	204.91	-
Alhambra Valley Open Space (AV/OS)	55.35	93.28	148.63	55.35
Business Park and Office (BPO)	49.86	-	49.86	-
Business Park and Office/Central Residential Low-B (BPO/CRL-B)	8.81	-	8.81	-
Business Park and Office/Residential Very High (BPO/RVH)	12.43	-	12.43	-
General Commercial (CG)	45.28	34.81	80.09	-
Commercial Light Industrial (CLI)	85.24	75.07	160.31	-
Neighborhood Commercial (CN)	52.00	7.23	59.23	-
Regional Commercial (CR)	21.63	-	21.63	-
Central Residential High (CRH)	8.31	-	8.31	-
Central Residential Low – A (CLR-A)	113.80	-	113.80	-
Central Residential Low – B (CLR-B)	82.81	-	82.81	-
Central Residential Low – C (CLR-C)	108.44	-	108.44	-
Central Residential Medium (CRM)	17.87	-	17.87	-

Land Use Designation	Area (Acres)			
	City Limits Only	Sphere of Influence Only	Total	POPO
Open Space/Conservation Use Land (CUL)	1,038.88	-	1,038.88	1,038.88
Downtown Core (DC)	19.86	-	19.86	-
Downtown Government (DG)	34.91	-	34.91	-
Downtown Shoreline (DS)	17.99	-	17.99	-
Downtown Transition (DT)	16.88	-	16.88	-
Environmentally Sensitive Land (ESL)	273.26	-	273.26	273.26
Industrial and Manufacturing (IM)	473.52	1,368.52	1,842.05	-
Marina and Waterfront (MW)	42.41	-	42.41	-
Neighborhood Park (NP)	10.49	-	10.49	10.49
Open Space (OS)	357.79	580.39	938.18	357.79
Open Space, Private (OS-P)	14.67	-	14.67	14.67
Open Space, Slopes Over 30% (OS-S)	69.36	-	69.36	69.36
Open Space & Recreation, Permanent (OS&R)	296.77	-	296.77	296.77
Open Space, Parks & Recreation (OS/P&R)	76.70	-	76.70	76.70
Parks & Recreation (P&R)	139.97	-	139.97	139.97
Public and Quasi-Public (PI)	241.70	457.75	699.45	-
Parks & Recreation, Public Permanent Open Space (PPOS)	731.90	9.99	741.89	731.90
Residential High (RH)	57.23	-	57.23	-
Residential Low (RL)	1,416.59	399.00	1,815.59	-
Residential Medium (RM)	344.24	56.88	401.12	-
Right of Way (ROW)	-	78.16	78.16	-
Residential Very High (RVH)	76.82	10.20	87.02	-
Residential Very Low (RVL)	204.14	98.15	302.29	
Totals (All Land Uses):	6,909.87	3,788.76	10,698.63	3,065.14

Source: City of Martinez Planning Division, January 2022

Open Space & Conservation Element

The Open Space & Conservation Element combines two State required general plan elements: Open Space (Government Code Section 65302 (e)), and Conservation (Government Code Section 65302 (d)). The Open Space & Conservation Element guides future planning and development in a manner that preserves the community's open space and natural resources, and encourages resource- and energy-conscious development. The Open Space & Conservation Element addresses:

- Open Space
- Agriculture, Soils, and Mineral Resources
- Biological Resources
- Energy and Resource Use
- Water Resources and Watersheds
- Flood Hazard Management
- Water Quality Conservation
- Alhambra Creek Enhancement
- Natural Resource Conservation
- Development Effects on Public Lands Resources
- Fisheries

Historical, Cultural, & Arts Element

The optional Historical, Cultural and Arts Element addresses the protection and enhancement the City's significant historical and cultural resources and encourage art and cultural enhancements within the City.

Parks & Community Facilities Element

The optional Parks & Community Facilities Element addresses parks, schools, and recreation facilities and services, including documenting existing facilities and services, identifying areas of improvement, and ensuring demand is met as the community grows.

Circulation Element

The Circulation Element addresses the movement of people and goods in and around the City of Martinez. The Circulation Element presents a set of policies correlated with the Land Use Element of the General Plan to guide the City's transportation related infrastructure and program growth over the next twenty years. A safe and efficient transportation system is an important contributor to a community's quality of life and economic vitality. The circulation system provides access to homes, employment and educational opportunities, public services, commercial and recreational centers, and regional destinations. The circulation system accommodates travel by automobile, transit, walking, and cycling, and it integrates the needs of railway and truck transport, as well as future discussion and introduction of a ferry service.

Public Safety Element

The Public Safety Element is designed to establish goals, policies and implementation programs that will protect the City from risks associated with seismic, geologic, flood, fire, and environmental hazards. The Public Safety Element addresses:

- Seismic Hazards
- Other Geologic Hazards
- Fire Hazards
- Flood Hazards
- Climate Change Adaptation and Resilience
- Community Emergency Response
- Hazardous Materials
- Airport Safety

Noise & Air Quality Element

The Noise & Air Quality Element establishes the City's framework to address existing and future noise and vibration conditions, air quality, and climate change, including greenhouse gas emissions.

Environmental Justice & Disadvantaged Communities Element

The Environmental Justice & Disadvantaged Communities Element addresses the regulatory framework established to address environmental justice and disadvantaged communities' concerns and addresses reducing pollution exposure, promoting public facilities in disadvantaged communities, promoting food access, promoting safe and sanitary homes in disadvantaged communities, promoting opportunities for physical activity, and reducing unique and compounded health risks, identifying methods for resident engagement in the City's decision-making process in general; and methods used for public review of the element and future updates, and resources for planning for environmental justice programs and activities.

Growth Management Element

The Growth Management Element establishes goals, policies and implementation programs that will be used to manage and mitigate the impacts of future growth and development within Martinez upon local streets and services, particularly local, regional and countywide transportation systems.

The Plan has been prepared to address the requirements of State law and the relevant items addressed in Government Code Section 65300 et seq. The Martinez General Plan is intended to reflect the desires and vision of residents, businesses, and City Council.

The following objectives are identified for the proposed update to the General Plan:

- Retain Martinez's unique, small-town historic character within its larger suburban context of Central Contra Costa County;

- Maintain and enhance Martinez’s vibrant, eclectic downtown, set within pedestrian-oriented neighborhoods made up of varied and traditionally designed homes, as the central focus of the community;
- Ensure neighborhoods will retain their livable mix of quality and varied housing opportunities, convenient and appropriately-scaled commercial areas, and plentiful parks and open spaces;
- Provide a vibrant economy linked to a viable community social structure and by conserving the ecosystem, environmental resources, and built environment that support it;
- Attract visitors due to Martinez’s unique small-town character, shops, restaurants, waterfront recreation, surrounding natural beauty and role as the County seat;
- Balance future development with the provision of adequate services, facilities, and infrastructure;
- Collaborate on regional planning efforts;
- Meet the City’s range of housing needs;
- Provide for economic development to maintain a high level of City services.; and
- Address new requirements of State law.

Growth and Development

While no specific development projects are proposed as part of the Martinez General Plan Update, the General Plan will accommodate future growth in Martinez, including new businesses, expansion of existing businesses, and new residential uses consistent with the Land Use Map (Figure 2) and Land Use Designations (Table 1).

The actual amount of development that will occur throughout the planning horizon of the General Plan is based on many factors outside of the City’s control. Actual future development would depend on future real estate and labor market conditions, property owner preferences and decisions, site-specific constraints, and other factors. New development and growth are largely dictated by existing development conditions, market conditions, and land turnover rates. Very few communities in California actually develop to the full potential allowed in their respective General Plans during the planning horizon.

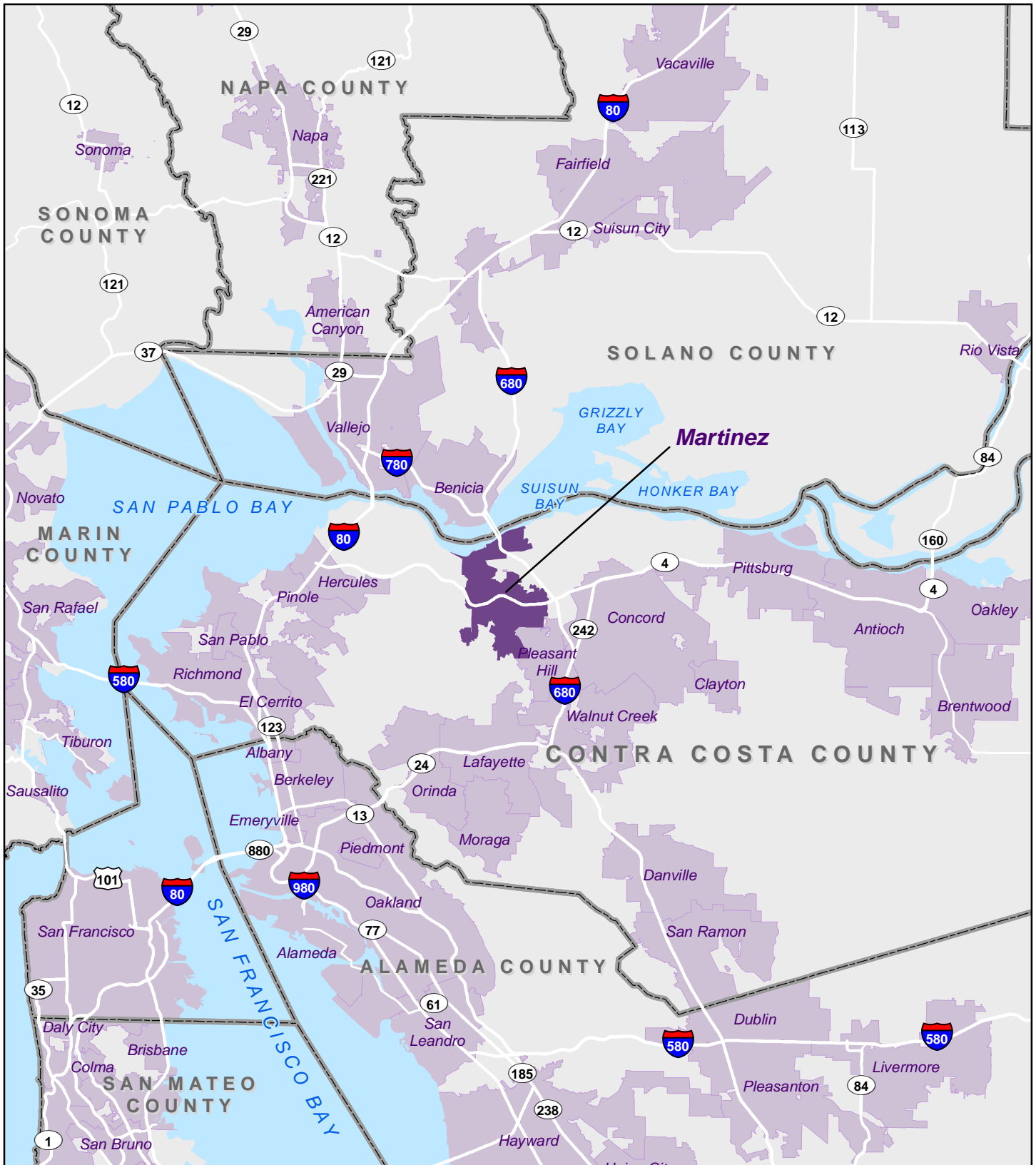
Program EIR Analysis

The City, as the Lead Agency under the California Environmental Quality Act (CEQA), will prepare a Program EIR for the Martinez General Plan Update. The EIR will be prepared in accordance with CEQA, the CEQA Guidelines (Guidelines), relevant case law, and City procedures. No Initial Study will be prepared pursuant to Section 15063(a) of the CEQA Guidelines.

The EIR will analyze potentially significant impacts associated with adoption and implementation of the General Plan. In particular, the EIR will focus on areas that have development potential. The EIR will evaluate the full range of environmental issues

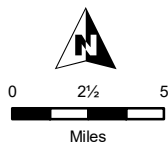
contemplated under CEQA and the CEQA Guidelines. At this time, the City anticipates that EIR sections will be organized in the following topical areas:

- Aesthetic Resources
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural and Tribal Cultural Resources
- Geology, Soils, and Mineral Resources
- Greenhouse Gases, Climate Change, and Energy
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation
- Utilities/Service Systems
- Wildfire
- Mandatory Findings of Significance/Cumulative Impacts
- Alternatives



Legend

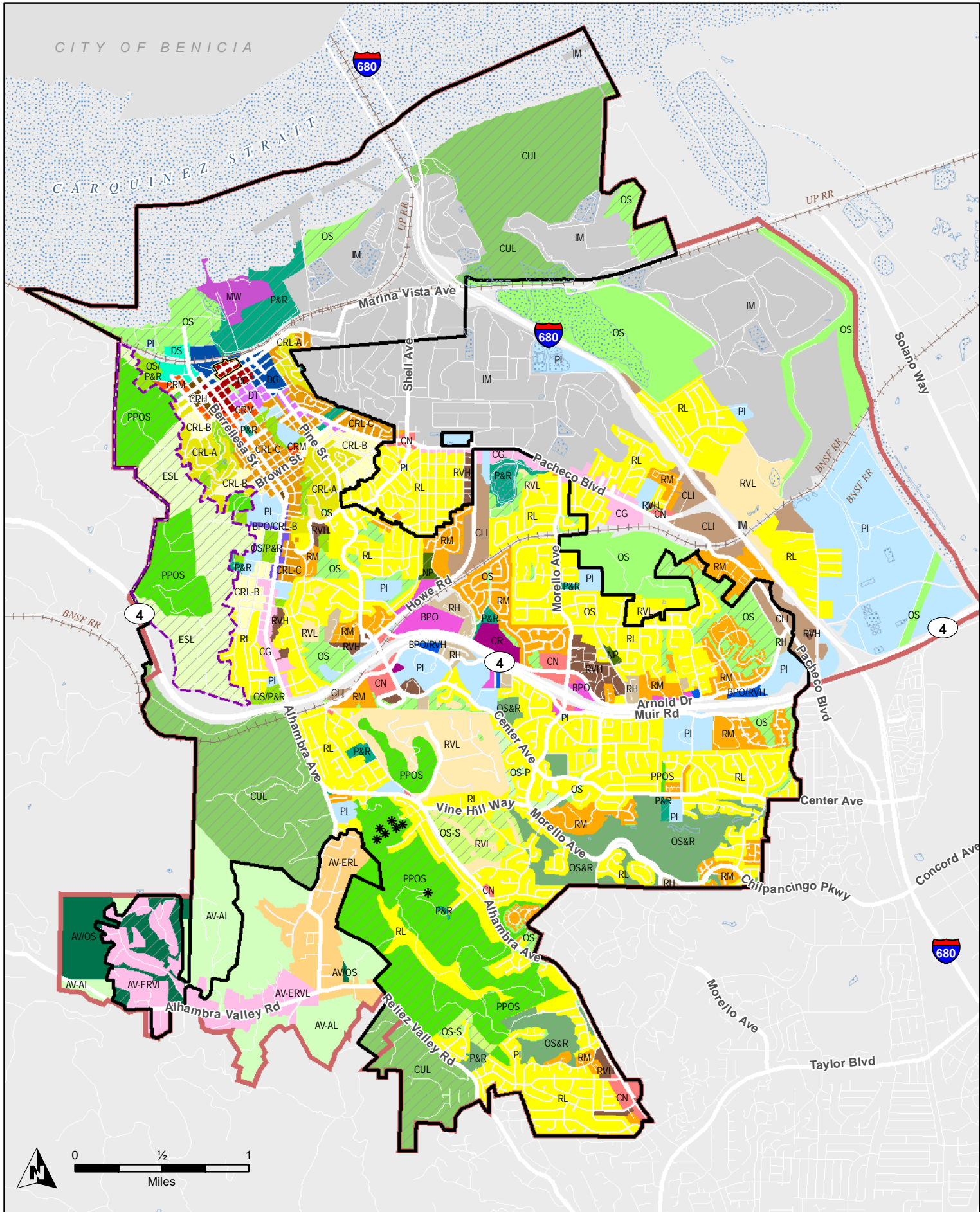
- City of Martinez
- Other Incorporated Areas
- County Boundary



CITY OF MARTINEZ

Figure 1. Regional Location Map

Sources: California State Geoportal. Map date: January 24, 2022.



Legend

- Martinez City Boundary
- Martinez Sphere of Influence
- Franklin Hills Sub-Area
- Downtown Residential Opportunity Area
- POPO Overlay Designation*
- * Alhambra Hills Remote Homesite

Land Use Designations

Downtown

- DC (Downtown Core)
- DG (Downtown Government)
- DS (Downtown Shoreline)
- DT (Downtown Transition)

Residential

- RVL (Residential Very Low)
- RL (Residential Low)
- RM (Residential Medium)
- RH (Residential High)
- RVH (Residential Very High)

Central Residential Single Family

- CRL-A (Central Residential Low - A)
- CRL-B (Central Residential Low - B)

Central Residential Mixed Single Family and Mult Family

- CRL-C (Central Residential Low - C)
- CRM (Central Residential Medium)
- CRH (Central Residential High)

Alhambra Valley

- AV-ERVL (Alhambra Valley Estate Residential - Very Low)
- AV-ERL (Alhambra Valley Estate Residential - Low)
- AV-AL (Alhambra Valley Agricultural)
- AV/OS (Alhambra Valley Open Space)

Commercial, Mixed Use, and Industrial

- GC (General Commercial)
- CN (Neighborhood Commercial)

CLI (Commercial Light Industrial)

- CR (Regional Commercial)
- BPO (Business Park and Office)
- BPO/CRL-B (Business Park and Office/Central Residential Low - B)
- BPO/RVH (Business Park and Office/Residential Very High)
- IM (Industrial and Manufacturing)

Parks, Recreation, and Open Space Preservation

- ESL (Environmentally Sensitive Land)
- NP (Neighborhood Park)
- OS (Open Space)
- OS&R (Open Space & Recreation, Permanent)

OS-S (Open Space, Slopes Over 30%)

- OS/P&R (Open Space, Parks & Recreation)
- OS-P (Open Space, Private)
- CUL (Open Space/Conservation Use Land)
- P&R (Parks & Recreation)
- PPOS (Parks & Recreation, Public Permanent Open Space)

Waterfront Recreation and Marina

- MW (Marina and Waterfront)

Public and Quasi-Public Institutions

- PI (Public and Quasi Public)

CITY OF MARTINEZ

Figure 2.
2035 General Plan Land Use Map

* The Protected Open Space and Parks Overlay (POPO) Designation applies specific limitations on changes to the underlying land uses pursuant to Measure I.

Data Sources: City of Martinez; USGS NHD; USGS National Map Roads; California State Geoportal. Map date: January 25, 2022.



**BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT**

February 28, 2022

Mr. Hector Rojas, Planning Manager
City of Martinez
525 Henrietta Street
Martinez, CA 94533

RE: City of Martinez General Plan Update Draft Environmental Impact Report -
Notice of Preparation

Dear Mr. Rojas,

Bay Area Air Quality Management District (Air District) staff has reviewed the Notice of Preparation (NOP) for the City of Martinez General Plan Update Draft Environmental Impact Report (DEIR). As we understand, the City intends to prepare a programmatic DEIR to update goals and policies in the General Plan (Plan) and has included implementation measures by which to evaluate future development, infrastructure improvements, and other projects throughout the City of Martinez (City). The City is located in central Contra Costa County west of Interstate 680 (I-680) and State Route 4 (SR4) and has a total area of 13.1 square miles. The City's residential and commercial areas represent a variety of land uses, from Downtown land uses to older neighborhoods adjacent to Downtown, and the suburban land use patterns separating the City's commercial centers. Projects will be required to implement updated policies and measures to be consistent with the City's General Plan.

Air District staff recommends the DEIR include the following information and analysis:

- The DEIR should provide a detailed analysis of the General Plan's potential effects on local and regional air quality. The DEIR should include a discussion of the Air District's attainment status for all criteria pollutants and the implications for the region if these standards are not attained or maintained by statutory deadlines. The Air District's CEQA Guidelines, which provide guidance on how to evaluate a Plan's construction, operational, and cumulative air quality impacts can be found on the Air District's website: <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/update-ceqa-guidelines>.
- The DEIR should evaluate the Plan's consistency with the Air District's 2017 Clean Air Plan (2017 CAP) and should discuss 2017 CAP measures relevant to the Plan. The 2017 CAP can be found on the Air District's website: <http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans>.

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(Vice Chair)
Pauline Russo Cutter
David Haubert
Nate Miley

CONTRA COSTA COUNTY
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David Hudson
Karen Mitchoff
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Erin Hannigan
Lori Wilson

SONOMA COUNTY
Teresa Barrett
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Jack P. Broadbent
EXECUTIVE OFFICER/APCO

Connect with the
Bay Area Air District:



-
- The greenhouse gas (GHG) impact analysis should include an evaluation of the Plan's consistency with the California Air Resources Board's most recent Assembly Bill (AB) 32 Scoping Plan and with the State's 2030, 2045, and 2050 climate goals. The Air District's current GHG thresholds and CEQA Guidelines are based on the State's 2020 targets which are now superseded by the 2030 targets established in Senate Bill (SB) 32. The Air District recommends that cities and counties evaluate such plans based on whether they would be consistent with California's long-term climate goal of achieving carbon neutrality by 2045. To be consistent with this goal, these plans should reduce GHG emissions in the relevant jurisdiction to meet an interim milestone of 40 percent below the 1990 emission levels by 2030, consistent with SB 32, and to achieve carbon neutrality by 2045 as defined in Executive Order B-55-18.
 - The Program DEIR should evaluate all feasible measures to minimize air pollutant emissions and exposure and should prioritize onsite measures within the Plan area, followed by offsite measures. Examples of potential emission reduction measures that should be evaluated and considered include, but are not limited to:
 - Requiring construction vehicles to operate with the highest tier engines commercially available,
 - Prohibit or minimize the use of diesel fuel, consistent with the Air District's Diesel Free by '33 initiative (<http://dieselfree33.baaqmd.gov/>),
 - Implement parking strategies to discourage vehicle travel, such as parking cash-out, reduced parking requirements, shared parking, paid parking, and related strategies,
 - Providing funding for zero-emission transportation projects, including a neighborhood electric vehicle program, community shuttle/van services and car sharing, and enhancement of active transportation initiatives, among others,
 - Provide comprehensive, safe, and convenient bicycle and pedestrian facilities throughout the city, linking residential areas and activity centers and connecting to regional networks where appropriate,
 - Install outdoor electrical receptacles for charging or powering of electric landscape equipment,
 - Implement green infrastructure and fossil fuel alternatives in the development and operation of the Project, such as solar photovoltaic (PV) panels, renewable diesel, electric heat pump water heaters, and solar PV back-up generators with battery storage capacity,
 - Meeting the vehicles miles traveled (VMT) requirement under SB 743,
 - Including a building decarbonization goal or policy in the Plan (<https://www.buildingdecarb.org/compass.html>) and requiring no natural gas use in proposed structures,
 - Include air filtration for new and existing buildings that may be exposed to elevated air pollution, such as MERV 13 filters, as well as vegetative buffers between new and existing buildings, and sources of pollution. For more emissions and exposure reduction best practices, see the Air District's Planning Healthy Places guidance, Appendices A and B, here:

https://www.baaqmd.gov/~/media/files/planning-and-research/planning-healthy-places/php_may20_2016-pdf.pdf., and

- Implementing a zero-waste program consistent with SB 1383 organic waste disposal reduction targets.

- Discuss how the Plan addresses SB 1000, the Planning for Healthy Communities Act. SB 1000, which became effective January 1, 2018, requires all California jurisdictions to consider environmental justice issues in their General Plans. Environmental justice (EJ), as defined by the State, focuses on disproportionate and adverse human health impacts that affect low-income and minority communities already suffering from cumulative and legacy environmental and health impacts.

- The Air District's CEQA website contains several tools and resources to assist lead agencies in analyzing air quality and GHG impacts. These tools include guidance on quantifying local emissions and exposure impacts. The tools can be found on the Air District's website: <http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools>.

We encourage the City to contact Air District staff with any questions and/or to request assistance during the environmental review process. If you have questions regarding these comments, please contact Andrea Gordon, Senior Environmental Planner, at (415) 749-4940, agordon@baaqmd.gov or Alesia Hsiao, Senior Environmental Planner, (415) 745-8419, ahsiao@baaqmd.gov.

Sincerely,



Greg Nudd
Deputy Air Pollution Control Officer

Cc: BAAQMD Chair Karen Mitchoff
BAAQMD Director John Gioia
BAAQMD Director David Hudson
BAAQMD Director Mark Ross

California Department of Transportation

DISTRICT 4
OFFICE OF TRANSIT AND COMMUNITY PLANNING
P.O. BOX 23660, MS-10D | OAKLAND, CA 94623-0660
www.dot.ca.gov



February 25, 2022

SCH #: 2015052064
GTS #: 04-CC-2022-00527
GTS ID: 25448
Co/Rt/Pm: CC/4/9.20

Hector J. Rojas, AICP, Director
Community Development Department
City of Martinez
525 Henrietta Street
Martinez, CA 94553

Re: City of Martinez General Plan Update Notice of Preparation (NOP)

Dear Hector J. Rojas:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the City of Martinez General Plan Update (project). We are committed to ensuring that impacts to the State's multimodal transportation system and to our natural environment are identified and mitigated to support a safe, sustainable, integrated and efficient transportation system. The following comments are based on our review of the January 2022 NOP.

Project Understanding

The project includes the update of the General Plan. In addition, the City of Martinez (City) will prepare a Draft Programmatic Environmental Impact Report (DEIR) for the project. The DEIR will address the environmental impacts associated with the adoption and implementation of the proposed project. The project encompasses the entire City and is located along segments of State Route (SR)-4 and Interstate (I)-680.

Travel Demand Analysis

With the enactment of Senate Bill (SB) 743, Caltrans is focused on maximizing efficient development patterns, innovative travel demand reduction strategies, and multimodal improvements. For more information on how Caltrans assesses Transportation Impact Studies, please review Caltrans' Transportation Impact Study Guide ([link](#)). Please note that current and future land use projects proposed near and adjacent to the State Transportation Network (STN) shall be assessed, in part, through the TISG.

Additionally, Caltrans requests that the City of Martinez General Plan Update is consistent with California Government Code Section 65088-65089.10 Congestion Management.

As well, the City is requested to gain a determination of conformity from the Contra Costa Transportation Authority to determine that the City of Martinez General Plan Update is consistent with and conforms to the Regional Transportation Plan Consistency Requirements of the County's Congestion Management Plan (CMP).

Transportation Impact Fees

We encourage a sufficient allocation of fair share contributions toward multimodal and regional transit improvements to fully mitigate cumulative impacts to regional transportation. We also strongly support measures to increase sustainable mode shares, thereby reducing VMT. Caltrans welcomes the opportunity to work with the City and local partners to secure the funding for needed mitigation. Traffic mitigation- or cooperative agreements are examples of such measures.

If proposed projects within the City of Martinez General Plan Update are determined to have significant impacts on State facilities, travel modes, or programs, Caltrans suggests the following Regional Transportation Plan (Plan Bay Area 2050) project for fair share contributions:

RTP ID	Project Description
21-T11-099	This program includes funding to implement new privately operated ferry service between San Francisco and Antioch, Martinez and Hercules, including new ferry terminals (2-5 peak trips per day).

Equitable Access

If any Caltrans facilities are impacted by the project, those facilities must meet American Disabilities Act (ADA) Standards after project completion. As well, the project must maintain bicycle and pedestrian access during construction. These access considerations support Caltrans' equity mission to provide a safe, sustainable, and equitable transportation network for all users.

Hector J. Rojas, AICP, Director
February 25, 2022
Page 3

Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, or for future notifications and requests for review of new projects, please email LDR-D4@dot.ca.gov.

Sincerely,

A handwritten signature in black ink that reads "Mark Leong". The signature is written in a cursive, flowing style.

MARK LEONG
District Branch Chief
Local Development Review

c: State Clearinghouse



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February 28, 2022

Hector Rojas, Planning Manager
City of Martinez Community Development Department
525 Henrietta Street
Martinez, CA 94533

Sent via e-mail to: hrojas@cityofmartinez.org

RE: Notice of Preparation – Martinez General Plan Update Draft Program Environmental Impact Report

Dear Mr. Rojas:

The East Bay Regional Park District (Park District) appreciates the opportunity to comment on the Notice of Preparation (NOP) for the revised draft Environmental Impact Report (EIR) for the City of Martinez’ (City) General Plan Update. The Park District manages several open space parklands and trails in and near Martinez including Radke-Martinez Regional Shoreline, Carquinez Strait Regional Shoreline, Briones Regional Park, George Miller Regional Trail, Contra Costa Canal Trail, and Waterbird Regional Preserve. The mission of the Park District is to preserve a rich heritage of natural and cultural resources and provide open space, parks, trails, safe and healthful recreation, and environmental education.

The Park District has reviewed the NOP for the revised draft EIR and requests that the City address the following concerns:

North Downtown Shoreline Block #1: The City’s General Plan calls for potential residential and some commercial development in this area adjacent to Radke Martinez Regional Shoreline west of Barrellessa St and north of the railroad tracks. According to the “Downtown Blocks White Paper” dated June 13, 2017, the City may allow up to 35 residential units per acre and a floor-to-area ratio of 2.0. This development would be directly adjacent to Radke Martinez Regional Shoreline, a protected wetland that is home to numerous shorebirds and endangered species including the Salt Marsh Harvest Mouse. The Park District is concerned about potential effects on open space and the shoreline and requests that the following be thoroughly analyzed in the draft EIR:

- Effects on recreation and public access
- Effects of domestic animals (dogs, cats, etc.) near the shoreline
- Light pollution
- Building heights’ effect on blocking cooling winds and shadow effects on wetlands
- Sea level rise
- Traffic and circulation
- Noise from the railroad tracks
- Visual impacts from and to the shoreline

SF Bay Trail: The Park District encourages the City and other agencies to pursue and develop the safest and lowest stress alignment of the San Francisco (SF) Bay Trail through the City connecting the proposed segment

Board of Directors

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General Manager

at Berrellesa St and east from Ferry St to Mococo Rd at the foot of the Benicia Bridge. This is a crucial linkage along the 350-mile SF Bay Trail that will connect Bay Area cities and counties and promote healthful outdoor recreation. Specifically, additional bicycle and pedestrian safety improvements should be installed between Ferry St to Mococo Rd. The Park District requests that the following be analyzed in the draft EIR:

- Traffic and circulation
- Pedestrian and bicycle safety and potential impacts to active transportation enhancements
- Greenhouse Gases, Climate Change, and Energy

Briones to CA State Riding and Hiking Trail: The Park District Master Plan 2013 identifies a potential trail, connecting Briones Regional Park to the existing California State Riding and Hiking Trail, through the City's Alhambra Highlands area between Alhambra Ave and Reliez Valley Rd; the City's 2035 General Plan Land Use Map designates Alhambra Highlands as mostly "public permanent open space" with some low residential development along the ridgetop. It is possible that the future trail will be adjacent to residential neighborhoods in an otherwise open space area, so the Park District requests that the following be analyzed in the draft EIR regarding residential use:

- Effects of domestic animals (dogs, cats, etc.) on surrounding open space
- Landslides and geologic stability
- Traffic and circulation
- Light pollution
- Visual impacts from Briones Regional Park

The Park District appreciates the opportunity to comment on the NOP for the revised draft EIR for the City's General Plan Update. The Park District looks forward to working with the City to balance residents' needs with managing open space, protecting shoreline habitats, and promoting healthful outdoor recreation. If you have any comments or questions, I can be reached at 510-544-2621 or ewillis@ebparks.org.

Sincerely,



Eddie Willis, Planner

CC: Neoma Lavallo, Principal Planner
Sean Dougan, Trails Program Manager
Brian Holt, Chief of Planning, Trails, and GIS

February 28, 2022

To: Hector Rojas, Planning Manager via e-mail
hrojas@cityofmartinez.org

Re: Notice of Preparation Martinez General Plan Update Draft Program
Environmental Impact Report dated January 28, 2022

Dear Mr. Rojas:

As an interested party, I am providing input on the scope and content of the EIR for the General Plan Update (GPU), as described in your "Notice of Preparation" for the Draft Program Environmental Impact Report dated 1/28/2022.

I have only a layman's knowledge of the EIR process, and cannot be sure exactly what may have been left out of this proposed scope for the EIR. Consequently I will list issues that I believe may not be covered, but must be covered in the EIR, and trust in you to make sure the proposed EIR scope covers them. If it does not, I request you expand the EIR scope so that it does cover them.

First, however, I would like to suggest that it makes little sense to prepare this EIR until the update of the Housing Element is completed and all impacts, especially from increased housing density and population, can be discerned. The updated Housing Element will contain information that will be central to determining the impacts that should be studied, and it will also contain information that will be central to studying them. This EIR and GPU process may not be accurate without information the updated Housing Element can contain.

I believe at the presentation on 2/22/22 to ARDPIE it was mentioned that the Housing Element update might be ready in 6-9 months, which means around the end of this year. That is just a few months after the anticipated date to finish the GPU process. So finishing the GPU process AFTER the Housing Element is completed may not delay things that long, especially as we've waited 11 years to get this far.

It just makes sense to do a complete job---which includes an updated Housing Element---after waiting so long and spending so much time and money. Including

the updated Housing Element will delay the process for just a short period of time, but will give us a complete document as a basis for the future. Even if the Housing Element takes longer to update, I believe it is in the public interest to wait.

ISSUES THAT I BELIEVE THE EIR MUST COVER

1. The NOP memo appears to state the EIR process will be started over, from scratch. I believe that is the correct approach. The EIR process should be restarted from scratch because:

- the process was never completed for the last draft which is about 7 years old;
- the draft GPU is very different from the previous 2015 Plan;
- new information is available on many issues like flooding and sea-level rise, fire safety, liquefaction, etc.;
- new issues need to be studied like traffic impacts on the train track crossings due to expanded development and the impact of farm land conversion.

Also, I believe neither the 2015 General Plan nor the EIR comments were answered to the public.

2. Impacts from the conversion of farmland in the Viano area. This should cover both the impact of the farmland the GPU changes to housing within City limits, and the much greater land area that could potentially be subject to the same City action in our sphere-of-influence. Impacts on traffic, schools, air pollution, water supply, biological resources, etc. should be studied, as should impacts on the new residents from living next to active remaining farmland.

3. Impacts from the housing and retail/commercial development the GPU institutes on the waterfront north of the train tracks. These include:

- impacts of massive increase in vehicle traffic on the streets in and around the waterfront;
- impacts on the public of the increased population from the hundreds of housing units if both train crossings are blocked by a train as happened last November or if a train accident or other catastrophic event occurs;

- impacts on flora and fauna in the immediately adjacent park and open space land and on the entire waterfront;
- impact of the noise from the development day and night that will affect the fauna and also those of us using the park and open space;
- impacts on the sports and park facilities in Waterfront Park that are popular now but will be occluded with this massive change from the increased housing density, population, traffic, etc.;
- impacts on the public of the removal of the two sports court warehouses--- NorCal and Universal;
- impact on the public of losing the parking area across from the Amtrak station;
- impacts of light pollution caused by the development;
- impacts of the cooling and shadowing caused by the high buildings;
- impacts caused by the buildings to the visual connection with the waterfront;
- impacts on the ability of the salt-water marsh and park land to absorb sea-level rise;
- impact on Alhambra Creek which is straddled by the huge development and yet is trying to be restored to a more natural state with fish and wildlife returning; etc.

Impacts that will degrade the public's experience of the entire waterfront, parkland, open space, the waterways, the marina, etc. are also important impacts to study.

Many of these impacts also apply to the high-rise development the City is mandating throughout the Downtown area, and need to be studied, as this type of development extends throughout the Downtown to well west of the center of town and impinges on portions of the waterfront and Alhambra Creek.

Similar impacts can result from over-development of the marina, and should be studied.

4. Impacts of the increase in population and housing density on traffic and parking throughout Martinez, and especially in the Downtown and other heavily impacted areas.

Impacts on parking need to be studied not only from the increased demand caused by increasing population, but by the loss of parking spaces and parking lots due to their conversion to housing and retail/commercial development mandated by the GPU.

Impacts on parking also need to be studied from the standpoint of how street parking will increase on some already-narrow streets to the point they are potentially blocked or reduced to one-way traffic should an emergency occur.

5. Impacts on fire safety due to greater housing density and more crowded streets with additional on-street parking.

6. Impacts on our limited parks that currently are below the City's statutory minimum, with no new sites (except Pine Meadow) identified for increasing the parklands in Martinez. The same applies to trails---no plan for expansion to meet population growth.

7. Impact of all this development on available state-wide water resources and availability. This impact needs to be studied, especially as drought conditions are predicted to increase in the future due to global warming. Clearly we have a limited and decreasing supply of fresh water to support the burgeoning housing and population the GPU is mandating. The impact we have on this diminishing resource needs to be addressed in the EIR in this new era of climate change.

This also needs to be studied from the standpoint of impact on water resources specifically used in and by Martinez.

8. For parks, trails, open space, cultural and community facilities, the marina, schools, etc., identifying areas of improvement, and ensuring demand is met as the community increases in size as the GPU fosters.

This includes replacing facilities and amenities made useless by sea-level rise (from both inundation and periodic flooding) and other climate change impacts. The EIR needs to address plans for new facilities/amenities to supplant those that are lost to maintain our quality of life.

This impact applies directly to the marina which is predicted to be inundated in the future.

9. Impacts of new land use designations and development plans on historic buildings that may or may not be listed in the GPU. This is primarily pertinent to the Downtown and the area the City designated for major development north of the train tracks where the new designations will put severe pressure on having these buildings torn down and replaced with intensive development.

10. Impact on City susceptibility to lawsuits or other costs because of the City changing land use designations to ones that potentially are found to allow unsafe uses. As the City is proactively making those changes, the potential liability may increase.

11. Impact of the GPU on our ability to increase Economic Development, attract jobs and keep our city fiscally sound.

Thank you.

Tim Platt
843 Pinon Dr.
Martinez CA 94553

From: [Harlan Strickland](#)
To: [Hector J. Rojas](#)
Cc: [Michael Chandler](#); [David Glasser](#); [Eric Figueroa](#)
Subject: GPU DPEIR scope comments
Date: Monday, February 28, 2022 4:58:11 PM
Attachments: [Martinez Housing Element May 2008.xls](#)
[City of Martinez - Fiscal concerns - Council retreat, GPU - 210129F.docx](#)
[City of Martinez - Fiscal concerns letter - Council retreat, GPU - 210129F.docx](#)

Hector,

Here are a few documents, some of which I had previously sent to the City for comment, but regarding which I never received feedback. They seem relevant here, so I am sending them again, this time as part of my comments on the DPEIR scope. The description of the GPU project below, taken from the NOP, addresses a broad range of quality of life issues. Some of the items mentioned entail things to be done to improve our quality of life; some entail things to be done to prevent degrading our quality of life.

Accordingly, many of the goals, policies and implementations of the GPU entail the expenditure of General Fund monies. My concern for the GPU is for it to be internally consistent, so that the economic effects of one part don't unduly impede the implementation of other parts. Economic considerations thus seem a proper subject of the DPEIR, and I would urge the City to include economic ramifications of the GPU to be included in the scope of the DPEIR.

The Fiscal Concerns list and Fiscal Concerns letter are not exhaustive, and are mildly out of date, but touch on some of the larger economic challenges facing Martinez.

The Housing Element spreadsheet is admittedly old, but I feel the methodology - normalizing requirements by population and category - remains a valid measure of relative RHNA impact within our county. Martinez is, after all, one of the oldest and most built-out cities in Contra Costa.

Project Description

The General Plan Update contains a set of public goals and policies to guide the future development and maintenance of the physical environment in Martinez. In a broad sense, the General Plan Update addresses issues related to **sustaining Martinez's quality of life**. These issues include enhancing the Downtown as the central focus of the community, protecting residential neighborhoods and environmental resources; **balancing future development with the provision of adequate services, facilities and infrastructure**; collaborating on regional planning efforts; and **providing for economic development to maintain a high level of City services**. Upon adoption, the General Plan Update will replace the City's existing General Plan, which was adopted in 1973 with subsequent updates to various elements.

The City is updating the Housing Element, which will address the City's Regional Housing Needs Allocation and the 2023-2031 planning period, in a process separate from the General Plan Update.

Regards,
Harlan Strickland

City of Martinez - Fiscal concerns letter - Council retreat, GPU - 210129F.docx

Fiscal concerns: Council retreat, GPU discussions

Thursday, January 28, 2021

Mayor Schroder, Vice Mayor McKillop, Councilmembers DeLaney, Ross and Zorn, City Manager Figueroa, Finance Director Glasser:

Back in February 2020, I went to the Measure X Oversight Commission meeting. It was lightly attended (I was the only one in the audience), and I didn't expect any surprises. I was wrong.

Measure X had been presented as a budgetary enhancement, to improve safety, infrastructure and parks. It was very popular with voters, and had been endorsed by the East Bay Times, which is normally skeptical of long-term sales tax increases. What I heard was that Measure X was an existential necessity. Our Chief of Police had actually been out on patrol because we had been losing so many officers to other cities because of poor compensation here. The City had already allocated funds that would have had to have come out of reserves, had Measure X not passed. The City at that point was spending somewhat over 50% of its general fund budget on police, compared to neighboring communities, which spent around 40%.

After the meeting, and after some reading and figuring, it seemed clear that Martinez had systemic general fund revenue inadequacy. I started a list of issues that all pointed in that direction. I had hoped to get my list to Director Glasser earlier for comment, but things being what they are during COVID, I wasn't able to get my notes together until now. The list of statements and questions is attached, and hopefully will be the basis for some discussion at the retreat, as well as during the upcoming GPU process. Needless to say, the statements, opinions, questions, etc. are my own, and I welcome any comments by the Council, Director Glasser, or other members of staff.

Back in 2018, when Brad Kilger announced his retirement as City Manager, the following press release and interview appeared in the Gazette:

<https://martinezgazette.com/martinez-city-manager-brad-kilger-announces-he-will-be-retiring-in-january/>

At the time, I was impressed by his analysis and all the changes he was able to initiate. Reading it again after the Measure X meeting, the thing that caught my eye was his recommendation for the City to make structural changes and to implement policies to increase general fund (GF) revenue, and to take up the long-term challenge of economic development (ED).

With that in mind, I was quite heartened when the City announced the formation of a permanent ED team and the subsequent creation of an Economic Development Action Plan (EDAP).

The Council is having its yearly planning and goals retreat this Friday, and the City has indicated that it's getting ready to consider moving forward with the General Plan Update (GPU). I've attached my list of

items relating to Martinez's current and future fiscal health, along with some comments and observations with implications for the GPU. A few of the topics addressed or touched upon:

- The departure and/or reassignment of core ED team members. Is the EDAP dead?
- The current EDAP: Will it meet Martinez's future needs?
- EDAP policies and principles: Are they adequately reflected in the GPU?
- From the Measure X oversight meeting, February, 2020: is GF revenue adequate?
- City budget information in RSG's recent Annexation Feasibility Study: GF revenue
- Comments by Maze & Associates in the 2019 CAFR regarding the Marina
- The mortgaging of City Hall in 2018
- Comments by the Mayor at the NWEDI Jobs Conference in May, 2019, re housing vs jobs
- EB Times editorials on city planning goals, in regional and post-COVID contexts
- State of California General Plan Guidelines vis-a-vis GPU process and content

Are the City's general fund revenues adequate?

Martinez has maintained its reserves, but that doesn't mean that revenue is adequate. When Manager Kilger made his comments about revenue back in 2018, the City mortgaged City Hall - rather than deplete reserves - to come up with cash to pay taxes associated with the Pleasant Hill/Martinez JFA. If revenues are inadequate, and if they're likely to remain inadequate under the current General Plan, then the most important goal of the new General Plan must be to increase revenues. That said, economic development is a long, difficult process. A general plan can stifle economic development, or a general plan can promote economic development - the GPU will determine which path Martinez will follow.

State Controller Yee's decision to stop publishing meaningful Cities Reports has made it harder than ever for average citizens to understand the finances of their city and how they compare with those of other cities, so I've attached my list of questions, comments and statements to be discussed, answered or commented on - far too many to be handled in a few three-minute segments at public meetings. Some comments and assertions may be incorrect, but they're meant to be thought of as a whole, together answering the question of whether or not Martinez's general fund revenue is truly adequate now, whether it will be going forward, and what the GPU's role should be with general fund revenue in mind.

I viewed Director Glasser's excellent presentation at the May 6, 2020 Council meeting. It looks like everyone is working hard and working smart to make ends meet with what we have, but as the upcoming year's activities are planned, and as GPU finalization and acceptance approaches, the question remains, is what we have really enough?

I look forward to the discussion.

Sincerely,
Harlan Strickland

(H) 925.228.2755
(C) 925.822.8297
hstrickla@comcast.net

pop order	Clayton pop =	10,784	ELI	VLI	LI	subtot_LI	MI	AMI	tot	default density reqd								
7	San Ramon	59,002	5.471254	587	3.213425	1,174	3.213425	715	2.946689	1,889	3.106972	740	2.64012	834	1.322674	3,463	2.280061	30
8	Brentwood	50,614	4.693435	359	2.290976	717	2.287785	435	2.089843	1,152	2.208787	480	1.996316	1,073	1.98373	2,705	2.076144	30
5	Walnut Creek	65,306	6.055823	228	1.127661	456	1.127661	302	1.124473	758	1.126388	374	1.205528	826	1.183533	1,958	1.164717	30
10	Martinez	36,144	3.351632	131	1.170663	261	1.166195	166	1.116778	427	1.146473	179	1.042499	454	1.175366	1,060	1.13928	30
6	Pittsburg	63,652	5.902448															
3	Richmond	103,577	9.604692															
2	Concord	123,776	11.47774															
12	Oakley	33,210	3.079562															
4	Antioch	100,361	9.306473															
1	ZUnincorporated	173,573	16.09542															
11	Pleasant Hill	33,377	3.095048															
14	Hercules	24,324	2.255564															
16	El Cerrito	23,320	2.162463															
17	Pinole	19,193	1.779766															
15	Lafayette	23,962	2.221996															
19	Moraga	16,138	1.496476															
20	Clayton	10,784	1															
9	Danville	42,629	3.952986															
18	Orinda	17,542	1.626669															
13	San Pablo	31,190	2.892248															
	Cities total	878,101	81.42628															
	County total	1,051,674	97.5217															

total county percent

Sources: cities 2007-08R pop est 6-30-08
 counties 2007-08 pop est 6-30-08
 ABAG reqs 2007-2014

Legend

ELI extremely low income (

VLI very low income

LI low income

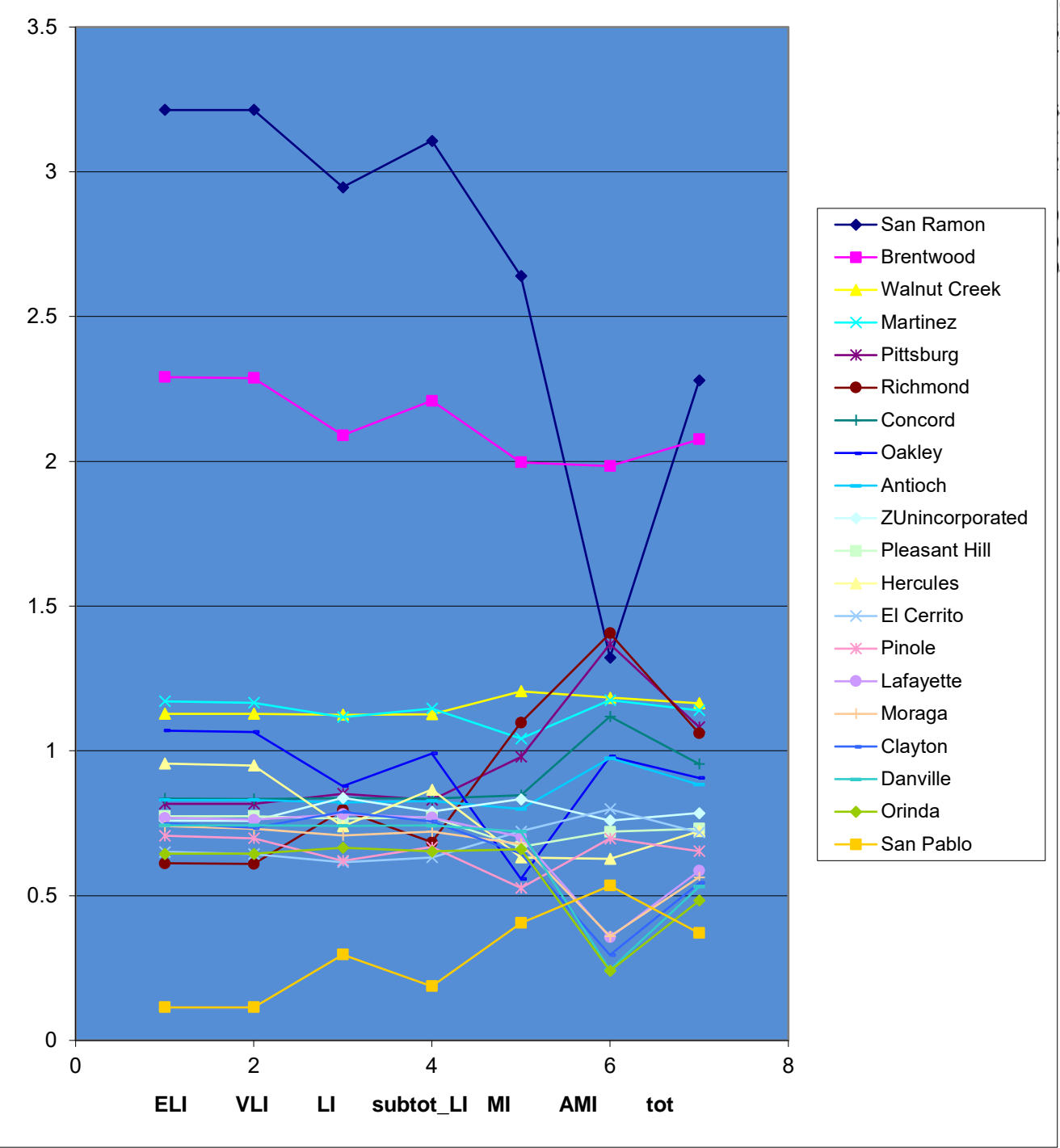
subtot_LI low income subtotal

MI moderate income

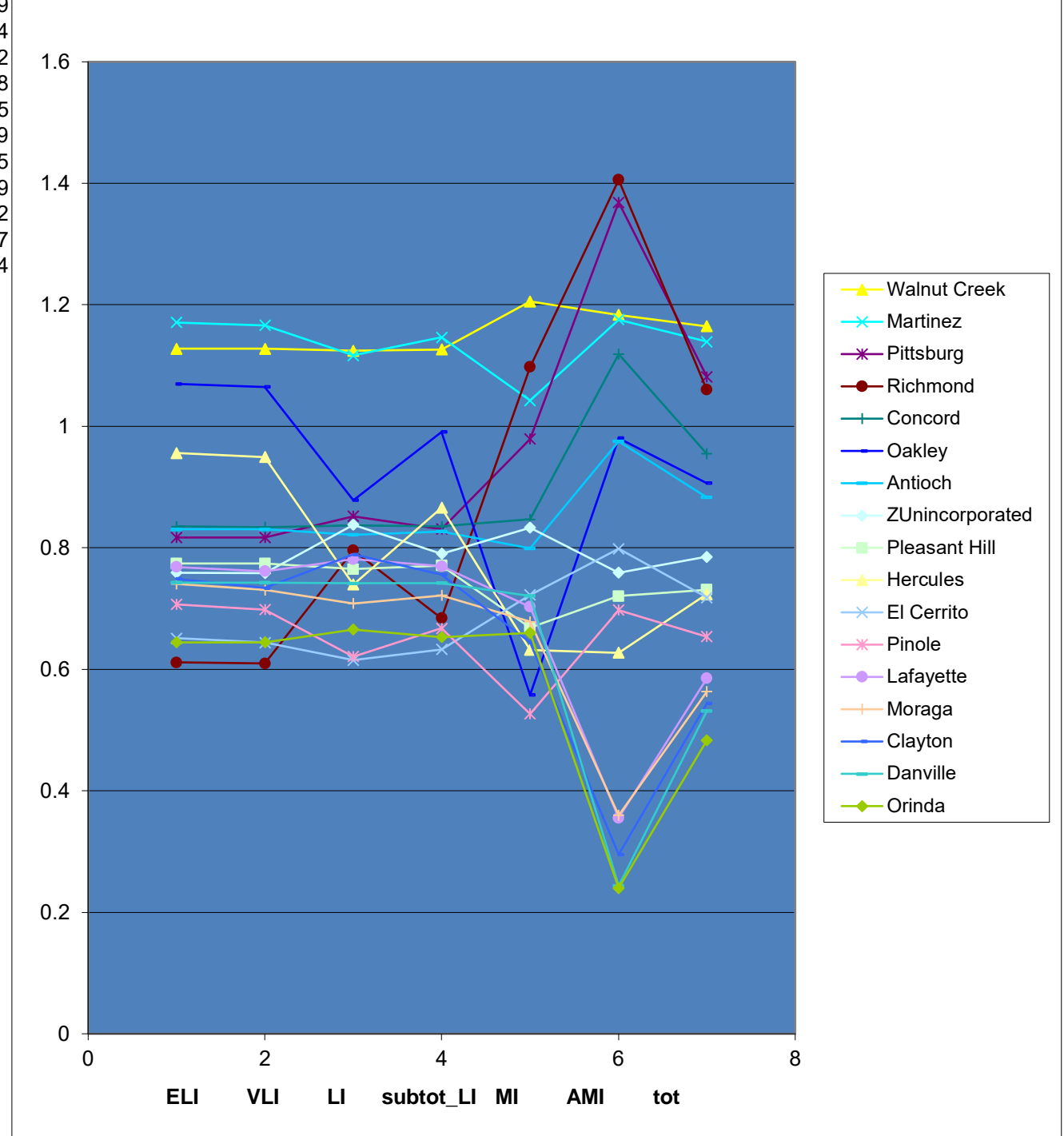
AMI above moderate income

tot total housing requireme

#1: Housing Requirement: County and all Cities, Normalized by Population and Category Requirement



#2: Housing Requirement: County and all Cities except San Ramon, Brentwood & San Pablo, Normalized by Population and Category Requirement



89
61
38
92
32
69
24
52
38
45
79
85
59
52
97
44

	city clerk email 150304	strong mayor	term limits	CHARTERED	notes
Antioch	cityclerk@ci.antioch.ca.us	1			Measure M
Brentwood	CityClerk@brentwoodca.gov	1			
Clayton	jbrown@ci.clayton.ca.us				
Concord	online form - no email address				stepped ba
Danville	Msunseri@danville.ca.gov				
El Cerrito	cmorse@ci.el-cerrito.ca.us				
Hercules	online form - no email address				
Lafayette	cityhall@lovelafayette.org				
Martinez	mcabral@cityofmartinez.org	1			
Moraga	mmcinturf@moraga.ca.us				CCT editori
Oakley	vreonis@ci.oakley.ca.us				
Orinda	molsen@cityoforinda.org				
Pinole	pathenour@ci.pinole.ca.us		?		Measure N
Pittsburg	aevenson@ci.pittsburg.ca.us				
Pleasant Hill	pkremser@ci.pleasant-hill.ca.us				
Richmond	Pamela_Christian@ci.richmond.ca.us	1			1
San Pablo	LehnyC@sanpabloca.gov				
San Ramon	CityClerk@sanramon.ca.gov	1			1
Walnut Creek	Kelly@walnut-creek.org				
Z_Unincorporated					14/19 cities

June, 2012 switch to appointed mayor - failed

January 29, 2021

Does Martinez Have Sufficient General Fund Revenue? What are appropriate General Plan Update land use guidelines to improve General Fund revenues?

Questions, comments and observations regarding Martinez's current and future fiscal status
Are statements and observations accurate?

ABAG	Association of Bay Area Governments
B2B	Business-to-business
CAFR	Comprehensive Annual Financial Report
CNWS	Concord Naval Weapons Station
ED	Economic Development
EDAP	Economic Development Action Plan
GF	General Fund
GP	General Plan
GPU	General Plan Update
GPUTF	General Plan Update Task Force
JFA	Joint Facilities Agency
LEAP	Local Early Action Planning
MUSD	Martinez Unified School District
NWEDI	Northern Waterfront Economic Development Initiative
RHNA	Regional Housing Needs Allocation
TRA	Tax Rate Area
VLF	Vehicle License Fee

1. From the Measure X oversight commission meeting, February, 2020: police, sales taxes

- a) Martinez was having trouble staffing the police due to non-competitive compensation.
- b) To deal with that, if Measure X hadn't passed, the City was preparing to start spending reserves for routine police operations (i.e., increased police compensation).
- c) It came out that somewhat over 50% of general fund expenditures were going to police, while comparable neighboring communities spend around 40%.
- d) This appeared to indicate a 25%, or about \$6M, deficiency of general fund revenues.
- e) The annexation study indicates that even now, with Measure X fully in force (\$3.5M), we're only down to 47% of GF revenues going to police.
- f) No plans have been put forth (other than long-term EDAP plans) to get the 47% down to 40% - which would require about a \$4.5M increase in revenue.

- g) There are no plans to handle Measure X sunset in 13 years.
- h) With Measure X and Measure D (roads), Martinez has the second highest sales tax in the County (9.25%, to go up to 9.75% when the County's new sales tax kicks in). One of the first two target areas for the EDAP was the downtown, a retail area that's hurt by high sales tax.
- i) Will the condition of the roads improved by Measure D require another similar expenditure in 2031 when Measure D expires? Will revenue have increased so that Measure D will not need to be extended?

2. Nearby cities – GF expenditure per capita, GF police %, 2018-19 CAFRs

- a) Walnut Creek $\$85,430,087 / 70,121 = \$1218 / \text{capita}$; Police = 31.7% of GF

It's nearby, and where our last two mayors came from (going back to 1984), but perhaps not a fair comparison. Walnut Creek has a net inward commute.

- b) Benicia $\$36,111,972 - \$9,536,158 = \$26,575,814$ (see note below)

$$\$26,575,814 / 27,570 = \$964 / \text{capita}; \quad \text{Police} = 37.4\% \text{ of GF}$$

Benicia has enterprise funds for its marina and water/sewer, but fire and library come out of the general fund. Removing these from the GF (total \$9,536,158) yields \$964 GF expenditure per capita and 37.4% GF police percentage. Benicia has much higher property and sales tax revenue per capita. Benicia doesn't have parking meters.

- c) Concord $\$99,012,060 / 129,889 = \$762 / \text{capita}$; Police = 59.0% of GF

Numbers are from the 2019 CAFR, before Measure V. In November, Concord's Measure V narrowly passed, making Concord tied with Martinez for the second-highest sales tax in the County (9.75% after Measure V and County Measure X kick in). Citizens and an EB Times editorial criticized Concord for not living within its means when Measure V was placed on the ballot: no sunset date, and it was seen as indirect pension debt funding.

- d) Pleasant Hill $\$26,681,459 / 35,055 = \$761 / \text{capita}$; Police = 38.9% of GF

Pleasant Hill has received kudos from the EB Times as a well-managed city. City Manager June Catalano left Martinez for Pleasant Hill in 2006, and is still the City Manager there.

- e) Martinez $\$26,438,521 / 38490 = \$687 / \text{capita}$; Police = 47.3% of GF

Because of the timing of Measure X revenue and recent budgetary actions, these numbers were taken from the November 12, 2020 Martinez Annexation Study. Martinez 2019 CAFR figures were

$$\$27,180,472 / 38490 = \$706 / \text{capita}; \quad \text{Police} = 46.3\% \text{ of GF}$$

- f) Comparing Martinez with the average per capita GF spending of Concord and Pleasant Hill (\$761.5), this would indicate a comparative annual GF revenue shortfall of:
 $(\$761.5 - \$687) \times 38490 = \$2,867,505$

3. Marina

- a) The fishing pier is falling apart. Does the grant deal with this? Hopefully it will, and hopefully the grant will come through, but if not, neither the Marina Fund nor the City can afford to do anything about the fishing pier for years.
- b) A former Benicia mayor commented that Marinas are nice amenities, but don't pay for themselves. Benicia is wealthier than Martinez, and doesn't have Martinez's on-the-outside-of-the-bend siltation problems.
- c) The Marina is not fully usable at low tide.
- d) The last dredging, \$700k, was only partial. Councilmember DeLaney said she wouldn't vote for another dredging operation unless the seawall was fixed.
- e) The seawall needs to be replaced and repositioned. What would the cost be, and how would it be funded? When might it be funded?
- f) Does the Marina have a functioning fueling station? Are the docks, in both the dredged and undredged portions, in good condition?
- g) The City is only making interest payments to the state for Marina debt.
- h) The City transfers money to the Marina Enterprise Fund from the GF from time to time.
- i) The CAFR consultants asked whether the City was going to shut down the Marina - low revenue, high cost, poor condition, substantial deferred maintenance, City's general fiscal state, etc.

4. Annexation

- a) The Annexation Viability Study appears to indicate annexation as an across-the-board fiscal loser. The RSG consultants advised against pursuing annexation.
- b) Are there any plans to come up with compensating GF revenue if annexation is undertaken?

5. Parking, downtown (pre-COVID)

- a) Parking tickets provide more GF income than sales tax from the entire downtown, and the gap between parking ticket revenue and downtown sales tax revenue is increasing.
- b) Parking meters and parking tickets hurt business, but the City needs the money.
- c) Neighboring communities that compete for Martinez retail sales dollars - Concord, Pleasant Hill, Benicia - don't have parking meters.
- d) Merchants complain about lack of parking. The Parking Enterprise Fund was set up to provide more parking, such as a parking structure, but over the years the City has systematically

transferred parking ticket revenues from the Enterprise Fund to the GF, leaving insufficient funds to make a significant dent in the parking problem either directly or as a basis for financing.

6. Unusual financing (as it appears to an average citizen)

- a) The City mortgaged City Hall (2018) to come up with cash to pay back taxes from the Pleasant Hill/Martinez JFA.

7. Economic Development

- a) On the advice of our previous City Manager, for the City to focus on increasing City revenue, an ED team was set up. That team is no more: the Director is gone; the City Planner is gone; the Assistant City Planner is gone; the Economic Coordinator position has been eliminated. According to former City Councilmember Gipner, the only “ED team” we have left is composed of Main Street Martinez and the Chamber of Commerce - no City staff to speak of.
- b) Before the ED team fell apart, studies were done and some EDAP webpages were put together, but much of the ED team’s efforts since then was put into creating the GPU, rather than following up with action to implement the EDAP (at last count: GPU – 418 pages, EIR – 659 pages).
- c) The EDAP webpages present an incrementalist approach to increasing revenue, focusing on boosting performance of existing businesses and types. Trying to branch out to attract high-tech or other high sales tax entities associated with the Bay Area’s tech-related economic drivers, doesn’t seem to be in the mix.
- d) The EDAP’s incrementalist/work-with-what-we-already-have approach seems to be tacitly accepting housing taking up most remaining developable land, precluding much higher sales- and property-tax-intensive utilization.
- e) EDAP on EC6/Pacheco Arnold, “Property owner outreach may reveal opportunities to intensify business and industrial uses,” doesn’t seem particularly focused or visionary.
- f) EDAP on Howe Road: “Industrial uses intruding on residential” – instead of vice-versa seems to indicate pro-housing bias in one of the two priority ED areas.
- g) A number of the EDAP Economic Centers are on County land (EC7/Pacheco East FDA, EC8/Pacheco West FDA, EC10/Shell South); the annexation study pretty much said annexation was a fiscal loser.
- h) At the May 6, 2020 City Council meeting, on page 12 of the budget PowerPoint presentation, “Expenditure Update – Major Reductions,” it lists the tech study for EDAP as not required. Why? This wasn’t really discussed.

8. Pensions

- a) Unfunded pension liabilities remain an issue. A few years back, Councilmember DeLaney said that the City’s current course was unsustainable; the Mayor’s comments on a recent KRON

interview confirmed that it remains a problem. The latest reduction in rates for retirement funds will make the problem worse in the coming years.

9. Housing: Per capita tax and fee revenue vs GF expense; other housing issues

a) Property tax

The two housing examples below are in Martinez’s largest TRA (Tax Rate Area), which includes downtown Martinez. TRA 5000 has one of the highest return-to-GF rates in the City, as well as the County:

TRA 5000 fraction of 1% property tax transferred to GF = .159227
 VLF revenue: property value fraction going to GF =
 Mtz VLF revenue/ Mtz full market value =
 \$3,670,883/\$6,078,232,475 = .0006039
 Average residents/unit = 2.4
 GF expenditure per capita = \$27,063,577 / 38,490 = \$703
 (from May 6th FY 2020-21 projection)

1. Median price home \$665k

GF property tax revenue = price x (TRA frac x .01 + VLF frac) = revenue per unit
 = \$665k x (.00159227 + .0006039) = \$1460 per unit
 = (revenue per unit)/(residents per unit) = revenue per capita
 = \$1460/2.4 = **\$609 per capita**

2. Co-op/condo unit \$533k

GF property tax revenue = price x (TRA frac x .01 + VLF frac) = revenue per unit
 = \$533k x (.00159227 + .0006039) = \$1171 per unit
 = (revenue per unit)/(residents per unit) = revenue per capita
 = \$1171/2.4 = **\$488 per capita**

b) Sales & Use Tax

1. Question: From the budget, Measure X (0.5%) yields \$3,552,000, but the Bradley-Burns (“1%”) only yields \$4,418,000, or only 62% of what one might expect. Where does the other 38% go?

2. Question: What percentage of sales/use tax is from non-retail sources? 25%?

3. Question: What percentage of retail sales/use tax is captured from non-residents? 20%?

4. Using assumptions above, retail sales/use tax generated by a resident =
 (Bradley-Burns \$ + Measure X \$) x (retail %) x (resident %) / population =
 (\$4,418,000 + \$3,552,000) x 0.75 x 0.80 / 38490 = **\$124 per capita**

c) Franchise fees

1. Question: Are franchise fees directly tied to population?

2. Assuming yes, \$1,710,000 / 38490 = **\$44 per capita**

d) Builder's fees – Question: Developer fees are typically thousands of dollars (around \$8000 per unit?), earmarked for development impact mitigation, but in other cities, they've been known to be treated as fungible monies, papering over long term fiscal problems. Only later, when the building stops, does the shortfall show up. How are Martinez's builder's fees handled and spent?

e) Housing annual net GF summaries, comments, miscellaneous

1. Median price home net (per capita values, assuming builder's fees not included) =
property tax + sales & use tax + franchise fees – GF expenditure =
 $\$609 + \$124 + \$44 - \$703 =$ **\$74 GF net gain per capita**
x 2.4 = \$178 GF net gain per home

2. Co-op/condo net (per capita values, assuming builder's fees not included) =
property tax + sale & use tax + franchise fees – GF expenditure =
 $\$488 + \$124 + \$44 - \$703 =$ **(\$47) GF net loss per capita**
x 2.4 = (\$113) GF net loss per unit

3. Break-even sales price (per capita values, assuming builder's fees not included):
property tax + sale & use tax + franchise fees = GF expenditure
property tax = property value x GF property fraction / residents per unit
GF property fraction = TRA frac x .01 + VLF frac
total break-even property value =
(GF expenditure – sales tax – franchise fees) x residents per unit / GF property fraction
 $= (\$703 - \$124 - \$44) \times 2.4 / .00219617 =$ **\$585k GF unit break-even sales price**

4. Solving the GF revenue shortfall with median price housing (city comparison shortfall)
shortfall / GF revenue per home = $\$2,867,505 / \$178 =$ **16,110 median price homes**

5. Solving the GF revenue shortfall with million-dollar homes (city comparison shortfall)
shortfall / GF revenue per home = $\$2,867,505 / \$912 =$ **3,144 million-dollar homes**

6. Sales tax and commuting, housing – As population grows without matching in-City jobs, residents will have to commute more, resulting in greater sales tax leakage, and a poorer in-City business climate. Available land being filled with housing rather than businesses will prevent jobs from being added to Martinez.

7. Low income housing and net GF revenue – Low-income housing is often associated with more residents per unit and higher GF expense per resident.

8. Push to accelerate housing production – At the May 6th City Council meeting, the topic of a LEAP grant to fund the creation of a zoning ordinance ahead of GPU adoption to implement the production of housing based on the housing element of the GPU was on the agenda. What is the status of the grant, and, considering that the GPU has not been adopted yet, of the zoning ordinance in question?

9. City planning scenarios question: Do City forecasts for real estate prices take into

account lowered demand due to Bay Area exodus and remote working in the post-COVID world?

10. RHNA housing quotas: Question: Do cities have an input on ABAG quotas?

11. RHNA housing quotas: Question: Does the percentage of developable land play into ABAG quotas?

12. RHNA housing quotas: Question: Does school capacity play a role in ABAG quotas?

13. RHNA housing quotas: Does the development of the CNWS enter into ABAG quotas?

14. RHNA housing quotas: Question: What role does LAFCO play in ABAG quotas?

15. RHNA housing quotas: During the GPUTF, it came out that Pinole, population 19,200, which is old (incorporated 1903) and largely built-out like Martinez, had a per-capita housing quota only 57% that of Martinez.

10. Jobs and final comments re the GPU

Property tax and sales tax are by far the largest revenue contributors, so any substantial improvement in GF revenue must address these. Of the two, property tax is the larger, but adding homes to increase property tax incurs substantial GF costs, so very little net revenue is generated, and can even be lost, as is the case for lower-priced housing.

On the sales tax front, increasing revenue by raising the sales tax rate is regressive and hurts business – sales tax rate measures should be used sparingly, as a way to deal with extreme situations for as short a time as possible. Because retail sales are one of the most volatile money streams, promoting retail sales should be done in tandem with promoting other revenue streams, which have either counter-cyclical or more stable profiles.

Real estate devoted to business is an effective, but long-term solution. It brings in property tax with much smaller GF costs than housing. B2B taxable sales from high-productivity activity are both higher and less volatile than small-volume retail, and generate their higher sales tax revenue via higher sales, rather than higher taxes. The jobs they provide generate retail sales tax from non-resident employees, as well as increase the average socioeconomic status of the community with their educated, higher-income resident employees.

Getting businesses to locate in a city isn't easy, and requires steady, long-term effort. At the NWEDI Jobs Conference, one of the participating panelists put out the idea of "agglomeration" – businesses with symbiotic needs and offerings, including a skilled, fluid labor pool, tending to locate near one another, in a virtuous circle of co-location and expansion as word spreads of the benefits of being part of that city's business neighborhood.

Silicon Valley didn't happen overnight. Silicon Valley wouldn't have happened if the entire South Bay had been filled with housing. Martinez can improve its bottom line if it starts planning now with a forward-looking GPU.

APPENDIX B: TRIBAL CONSULTATION COMMUNICATION

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NATIVE AMERICAN HERITAGE COMMISSION

June 28, 2022

Ashley Brodtkin
De Novo Planning Group

Via Email to: abrodtkin@denovoplanning.com

Re: Native American Consultation, Pursuant to Senate Bill 18 (SB18), Government Codes §65352.3 and §65352.4, as well as Assembly Bill 52 (AB52), Public Resources Codes §21080.1, §21080.3.1 and §21080.3.2, Martinez General Plan Update Project, Contra Costa County

Dear Ms. Brodtkin:

Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the above referenced counties or projects.

Government Codes §65352.3 and §65352.4 require local governments to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of avoiding, protecting, and/or mitigating impacts to cultural places when creating or amending General Plans, Specific Plans and Community Plans.

Public Resources Codes §21080.3.1 and §21080.3.2 requires public agencies to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of avoiding, protecting, and/or mitigating impacts to tribal cultural resources as defined, for California Environmental Quality Act (CEQA) projects.

The law does not preclude local governments and agencies from initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction. The NAHC believes that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law.

Best practice for the AB52 process and in accordance with Public Resources Code §21080.3.1(d), is to do the following:

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 that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The NAHC also recommends, but does not require that lead agencies include in their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential affect (APE), such as:



CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

PARLIAMENTARIAN
Russell Attebery
Karuk

SECRETARY
Sara Dutschke
Miwok

COMMISSIONER
William Mungary
Paiute/White Mountain
Apache

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Buffy McQuillen
Yokayo Pomo, Yuki,
Nomlaki

COMMISSIONER
Wayne Nelson
Luiseño

COMMISSIONER
Stanley Rodriguez
Kumeyaay

EXECUTIVE SECRETARY
Raymond C. Hitchcock
Miwok/Nisenan

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:
 - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE, such as known archaeological sites;
 - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
 - Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the APE; and
 - If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.
2. The results of any archaeological inventory survey that was conducted, including:
 - Any report that may contain site forms, site significance, and suggested mitigation measures.

All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code Section 6254.10.
3. The result of the Sacred Lands File (SFL) check conducted through the Native American Heritage Commission was negative.
4. Any ethnographic studies conducted for any area including all or part of the potential APE; and
5. Any geotechnical reports regarding all or part of the potential APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event, that they do, having the information beforehand well help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address:

Cody.Campagne@nahc.ca.gov.

Sincerely,

Cody Campagne

Cody Campagne
Cultural Resources Analyst

Attachment

**Native American Heritage Commission
Tribal Consultation List
Contra Costa County
6/28/2022**

Amah Mutsun Tribal Band of Mission San Juan Bautista

Irene Zwierlein, Chairperson
3030 Soda Bay Road
Lakeport, CA, 95453
Phone: (650) 851 - 7489
Fax: (650) 332-1526
amahmutsuntribal@gmail.com
Costanoan

Chicken Ranch Rancheria of Me-Wuk Indians

Lloyd Mathiesen, Chairperson
P.O. Box 1159
Jamestown, CA, 95327
Phone: (209) 984 - 9066
Fax: (209) 984-9269
lmathiesen@crtribal.com
Me-Wuk

Guidiville Indian Rancheria

Donald Duncan, Chairperson
P.O. Box 339
Talmage, CA, 95481
Phone: (707) 462 - 3682
Fax: (707) 462-9183
admin@guidiville.net
Pomo

Indian Canyon Mutsun Band of Costanoan

Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister, CA, 95024
Phone: (831) 637 - 4238
ams@indiancanyons.org
Costanoan

Indian Canyon Mutsun Band of Costanoan

Kanyon Sayers-Roods, MLD
Contact
1615 Pearson Court
San Jose, CA, 95122
Phone: (408) 673 - 0626
kanyon@kanyonconsulting.com
Costanoan

Muwekma Ohlone Indian Tribe of the SF Bay Area

Monica Arellano, Vice
Chairwoman
20885 Redwood Road, Suite 232
Castro Valley, CA, 94546
Phone: (408) 205 - 9714
marellano@muwekma.org
Costanoan

Muwekma Ohlone Indian Tribe of the SF Bay Area

Charlene Nijmeh, Chairperson
20885 Redwood Road, Suite 232
Castro Valley, CA, 94546
Phone: (408) 464 - 2892
cnijmeh@muwekma.org
Costanoan

Nashville Enterprise Miwok-Maidu-Nishinam Tribe

Cosme Valdez, Chairperson
P.O. Box 580986
Elk Grove, CA, 95758-0017
Phone: (916) 429 - 8047
Fax: (916) 429-8047
valdezcome@comcast.net
Miwok

North Valley Yokuts Tribe

Katherine Perez, Chairperson
P.O. Box 717
Linden, CA, 95236
Phone: (209) 887 - 3415
canutes@verizon.net
Costanoan
Northern Valley
Yokut

North Valley Yokuts Tribe

Timothy Perez,
P.O. Box 717
Linden, CA, 95236
Phone: (209) 662 - 2788
huskanam@gmail.com
Costanoan
Northern Valley
Yokut

The Ohlone Indian Tribe

Andrew Galvan,
P.O. Box 3388
Fremont, CA, 94539
Phone: (510) 882 - 0527
Fax: (510) 687-9393
chochenyo@AOL.com
Bay Miwok
Ohlone
Patwin
Plains Miwok

Wilton Rancheria

Steven Hutchason, THPO
9728 Kent Street
Elk Grove, CA, 95624
Phone: (916) 683 - 6000
Fax: (916) 863-6015
shutchason@wiltonrancheria-nsn.gov
Miwok

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable only for consultation with Native American tribes under Government Code Sections 65352.3, 65352.4 et seq. and Public Resources Code Sections 21080.3.1 for the proposed Martinez General Plan Update Project, Contra Costa County.

**Native American Heritage Commission
Tribal Consultation List
Contra Costa County
6/28/2022**

Wilton Rancheria

Jesus Tarango, Chairperson
9728 Kent Street
Elk Grove, CA, 95624
Phone: (916) 683 - 6000
Fax: (916) 683-6015
jtarango@wiltonrancheria-nsn.gov

Miwok

Wilton Rancheria

Dahlton Brown, Director of
Administration
9728 Kent Street
Elk Grove, CA, 95624
Phone: (916) 683 - 6000
dbrown@wiltonrancheria-nsn.gov

Miwok

***The Confederated Villages of
Lisjan***

Corrina Gould, Chairperson
10926 Edes Avenue
Oakland, CA, 94603
Phone: (510) 575 - 8408
cvltribe@gmail.com

Bay Miwok
Ohlone
Delta Yokut

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable only for consultation with Native American tribes under Government Code Sections 65352.3, 65352.4 et seq. and Public Resources Code Sections 21080.3.1 for the proposed Martinez General Plan Update Project, Contra Costa County.



May 23, 2022

Amah Mutsun Tribal Band of Mission San Juan Bautista
Irene Zwierlien, Chairperson
789 Canada Road
Woodside, CA 94062

Subject: Project Notification Pursuant to Assembly Bill 52 and Senate Bill 18 for the City of Martinez General Plan Update

Dear Tribal Representative,

The City of Martinez is in the process of a comprehensive update to their General Plan consistent with State law, and has asked us, as their project consultant, to contact individuals and organizations listed with the Native American Heritage Commission (NAHC) on their behalf who may wish to engage in consultation with the City pursuant to SB 18 and to contact tribes that have requested consultation through the AB 52 process, pursuant to Government Code §65352 and 65352.3, as well as Public Resources Code §21080.3.1 and 21080.3.2.

De Novo Planning Group is providing this formal notification of the City of Martinez's General Plan Update and the tribe's consultation opportunity, pursuant to Public Resources Code (PRC) §21080.3.1. The City posted a Notice of Preparation of an Environmental Impact Report (EIR) pursuant to the State CEQA Guidelines §15082 on January 29, 2022. The City, as the Lead Agency under the California Environmental Quality Act (CEQA), will prepare a Program EIR for the Martinez General Plan Update. The EIR will be prepared in accordance with CEQA, the CEQA Guidelines, relevant case law, and City procedures. No Initial Study will be prepared pursuant to §15063(a) of the CEQA Guidelines.

Below please find a description of the proposed project, a map showing the project location, and the name of our project point of contact.

Project Description

The proposed project is a long-term General Plan consisting of policies that will guide future development activities and City actions. No specific development projects are proposed as part of the Plan. The General Plan Update contains a set of public goals and policies to guide the future development and maintenance of the physical environment in Martinez. In a broad sense, the General Plan Update addresses issues related to sustaining Martinez's quality of life. These issues include enhancing the Downtown as the central focus of the community, protecting residential neighborhoods and environmental resources; balancing future development with the provision of adequate services, facilities and infrastructure; collaborating on regional planning efforts; and providing for economic development to maintain a high level of City services. Upon adoption, the General Plan Update will replace the City's existing General Plan, which was adopted in 1973 with subsequent updates to various elements. The General Plan Update will include the following elements: Land Use; Open Space & Conservation; Historical, Cultural & Arts; Parks & Community Facilities; Circulation; Public Safety; Noise & Air Quality; Environmental Justice & Disadvantaged Communities; and Growth Management.

Project Location

The project area is the Study Area for the City's General Plan, as shown in the attached figure. Martinez is a city in central Contra Costa County that has a total area of 13.1 square miles, of



which 12.1 square miles is land and one square mile is water. The City of Martinez is the County seat, located on the south side of the Carquinez Strait. The City is bordered by Carquinez Strait/Solano County to the north, the Cities of Pleasant Hill and Concord to the southeast, and unincorporated Contra Costa County to the west and northeast.

Summary

Additional project documents and information are available at the City of Martinez, Community Development Department located at 525 Henrietta Street and on-line at:

https://www.cityofmartinez.org/depts/planning/general_plan_update.asp.

You are invited to provide information regarding sites, traditional cultural properties, values, or other resources considerations within the City of Martinez Study Area and are invited to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places. If you desire to consult with the City on the review of this project, please respond in writing within ninety (90) days of the date of this letter to Ashley Brodtkin, abrodtkin@denovoplanning.com, and you can contact me by telephone at (714) 440-0273 and we will coordinate the consultation. You may also mail comments to me or to Hector Rojas, Planning Manager, City of Martinez, 525 Henrietta Street, Martinez, CA 94553. Should a response not be received within 90 days, it will be presumed that your tribe has declined consultation. Thank you for your time reviewing this letter and attached map.

Sincerely,

Ashley Brodtkin, Senior Planner
De Novo Planning Group

Enclosure: City of Martinez – General Plan Update Land Use Map Figure



May 23, 2022

Chicken Ranch Rancheria of Me-Wuk Indians
Lloyd Mathiesen, Chairperson
P.O. Box 1159
Jamestown, CA 95327

Subject: Project Notification Pursuant to Assembly Bill 52 and Senate Bill 18 for the City of Martinez General Plan Update

Dear Tribal Representative,

The City of Martinez is in the process of a comprehensive update to their General Plan consistent with State law, and has asked us, as their project consultant, to contact individuals and organizations listed with the Native American Heritage Commission (NAHC) on their behalf who may wish to engage in consultation with the City pursuant to SB 18 and to contact tribes that have requested consultation through the AB 52 process, pursuant to Government Code §65352 and 65352.3, as well as Public Resources Code §21080.3.1 and 21080.3.2.

De Novo Planning Group is providing this formal notification of the City of Martinez's General Plan Update and the tribe's consultation opportunity, pursuant to Public Resources Code (PRC) §21080.3.1. The City posted a Notice of Preparation of an Environmental Impact Report (EIR) pursuant to the State CEQA Guidelines §15082 on January 29, 2022. The City, as the Lead Agency under the California Environmental Quality Act (CEQA), will prepare a Program EIR for the Martinez General Plan Update. The EIR will be prepared in accordance with CEQA, the CEQA Guidelines, relevant case law, and City procedures. No Initial Study will be prepared pursuant to §15063(a) of the CEQA Guidelines.

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Sincerely,

Ashley Brodtkin, Senior Planner
De Novo Planning Group

Enclosure: City of Martinez – General Plan Update Land Use Map Figure



May 23, 2022

Guidiville Indian Rancheria
Donald Duncan, Chairperson
P.O. Box 339
Talmage, CA 95481

Subject: Project Notification Pursuant to Assembly Bill 52 and Senate Bill 18 for the City of Martinez General Plan Update

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Ashley Brodtkin, Senior Planner
De Novo Planning Group

Enclosure: City of Martinez – General Plan Update Land Use Map Figure



May 23, 2022

Indian Canyon Mutsun Band of Costanoan
Kanyon Sayers-Roods, MLD Contact
1615 Pearson Court
San Jose, CA 95122

Subject: Project Notification Pursuant to Assembly Bill 52 and Senate Bill 18 for the City of Martinez General Plan Update

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Ashley Brodtkin, Senior Planner
De Novo Planning Group

Enclosure: City of Martinez – General Plan Update Land Use Map Figure



May 23, 2022

Muwekma Ohlone Indian Tribe of the SF Bay Area
Monica Arellano, Vice Chairwoman
20885 Redwood Road, Suite 232
Casto Valley, CA 94546

Subject: Project Notification Pursuant to Assembly Bill 52 and Senate Bill 18 for the City of Martinez General Plan Update

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De Novo Planning Group

Enclosure: City of Martinez – General Plan Update Land Use Map Figure



May 23, 2022

Nashville Enterprise Miwok-Maidu-Nishinam Tribe
Cosme Valdez, Chairperson
P.O. Box 580986
Elk Grove, CA 95758-0017

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Ashley Brodtkin, Senior Planner
De Novo Planning Group

Enclosure: City of Martinez – General Plan Update Land Use Map Figure



May 23, 2022

North Valley Yokuts Tribe
Katherine Perez, Chairperson
P.O. Box 717
Linden, CA 95236

Subject: Project Notification Pursuant to Assembly Bill 52 and Senate Bill 18 for the City of Martinez General Plan Update

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Enclosure: City of Martinez – General Plan Update Land Use Map Figure



May 23, 2022

The Ohlone Indian Tribe
Andrew Galvan
P.O. Box 3388
Fremont, CA 94539

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May 23, 2022

Wilton Rancheria
Jesus Tarango, Chairperson
9728 Kent Street
Elk Grove, CA 92564

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May 23, 2022

The Confederated Villages of Lisjan
Corrina Gould, Chairperson
10926 Edes Avenue
Oakland, CA 94603

Subject: Project Notification Pursuant to Assembly Bill 52 and Senate Bill 18 for the City of Martinez General Plan Update

Dear Tribal Representative,

The City of Martinez is in the process of a comprehensive update to their General Plan consistent with State law, and has asked us, as their project consultant, to contact individuals and organizations listed with the Native American Heritage Commission (NAHC) on their behalf who may wish to engage in consultation with the City pursuant to SB 18 and to contact tribes that have requested consultation through the AB 52 process, pursuant to Government Code §65352 and 65352.3, as well as Public Resources Code §21080.3.1 and 21080.3.2.

De Novo Planning Group is providing this formal notification of the City of Martinez's General Plan Update and the tribe's consultation opportunity, pursuant to Public Resources Code (PRC) §21080.3.1. The City posted a Notice of Preparation of an Environmental Impact Report (EIR) pursuant to the State CEQA Guidelines §15082 on January 29, 2022. The City, as the Lead Agency under the California Environmental Quality Act (CEQA), will prepare a Program EIR for the Martinez General Plan Update. The EIR will be prepared in accordance with CEQA, the CEQA Guidelines, relevant case law, and City procedures. No Initial Study will be prepared pursuant to §15063(a) of the CEQA Guidelines.

Below please find a description of the proposed project, a map showing the project location, and the name of our project point of contact.

Project Description

The proposed project is a long-term General Plan consisting of policies that will guide future development activities and City actions. No specific development projects are proposed as part of the Plan. The General Plan Update contains a set of public goals and policies to guide the future development and maintenance of the physical environment in Martinez. In a broad sense, the General Plan Update addresses issues related to sustaining Martinez's quality of life. These issues include enhancing the Downtown as the central focus of the community, protecting residential neighborhoods and environmental resources; balancing future development with the provision of adequate services, facilities and infrastructure; collaborating on regional planning efforts; and providing for economic development to maintain a high level of City services. Upon adoption, the General Plan Update will replace the City's existing General Plan, which was adopted in 1973 with subsequent updates to various elements. The General Plan Update will include the following elements: Land Use; Open Space & Conservation; Historical, Cultural & Arts; Parks & Community Facilities; Circulation; Public Safety; Noise & Air Quality; Environmental Justice & Disadvantaged Communities; and Growth Management.

Project Location

The project area is the Study Area for the City's General Plan, as shown in the attached figure. Martinez is a city in central Contra Costa County that has a total area of 13.1 square miles, of



which 12.1 square miles is land and one square mile is water. The City of Martinez is the County seat, located on the south side of the Carquinez Strait. The City is bordered by Carquinez Strait/Solano County to the north, the Cities of Pleasant Hill and Concord to the southeast, and unincorporated Contra Costa County to the west and northeast.

Summary

Additional project documents and information are available at the City of Martinez, Community Development Department located at 525 Henrietta Street and on-line at:
https://www.cityofmartinez.org/depts/planning/general_plan_update.asp.

You are invited to provide information regarding sites, traditional cultural properties, values, or other resources considerations within the City of Martinez Study Area and are invited to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places. If you desire to consult with the City on the review of this project, please respond in writing within ninety (90) days of the date of this letter to Ashley Brodtkin, abrodtkin@denovoplanning.com, and you can contact me by telephone at (714) 440-0273 and we will coordinate the consultation. You may also mail comments to me or to Hector Rojas, Planning Manager, City of Martinez, 525 Henrietta Street, Martinez, CA 94553. Should a response not be received within 90 days, it will be presumed that your tribe has declined consultation. Thank you for your time reviewing this letter and attached map.

Sincerely,

Ashley Brodtkin, Senior Planner
De Novo Planning Group

Enclosure: City of Martinez – General Plan Update Land Use Map Figure

APPENDIX C: ENVIRONMENTAL NOISE ASSESSMENT APPENDICES

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Environmental Noise Assessment

City of Martinez General Plan Update EIR

City of Martinez, California

July 21, 2022

Project # 220405

Prepared for:

DE NOVO PLANNING GROUP



De Novo Planning Group
1020 Suncast Lane, #106
El Dorado Hills, CA 95762

Prepared by:

Saxelby Acoustics LLC



Luke Saxelby, INCE Bd. Cert.
Principal Consultant
Board Certified, Institute of Noise Control Engineering (INCE)

(916) 760-8821
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915 Highland Pointe Drive, Suite 250
Roseville, CA 95678

Appendix A: Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
ASTC	Apparent Sound Transmission Class. Similar to STC but includes sound from flanking paths and correct for room reverberation. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by +5 dBA and nighttime hours weighted by +10 dBA.
DNL	See definition of Ldn.
IIC	Impact Insulation Class. An integer-number rating of how well a building floor attenuates impact sounds, such as footsteps. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
Ldn	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
Leq	Equivalent or energy-averaged sound level.
Lmax	The highest root-mean-square (RMS) sound level measured over a given period of time.
L(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50% of the time during the one-hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
NIC	Noise Isolation Class. A rating of the noise reduction between two spaces. Similar to STC but includes sound from flanking paths and no correction for room reverberation.
NNIC	Normalized Noise Isolation Class. Similar to NIC but includes a correction for room reverberation.
Noise	Unwanted sound.
NRC	Noise Reduction Coefficient. NRC is a single-number rating of the sound-absorption of a material equal to the arithmetic mean of the sound-absorption coefficients in the 250, 500, 1000, and 2,000 Hz octave frequency bands rounded to the nearest multiple of 0.05. It is a representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.
RT60	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 Sabin.
SEL	Sound Exposure Level. SEL is a rating, in decibels, of a discrete event, such as an aircraft flyover or train pass by, that compresses the total sound energy into a one-second event.
SPC	Speech Privacy Class. SPC is a method of rating speech privacy in buildings. It is designed to measure the degree of speech privacy provided by a closed room, indicating the degree to which conversations occurring within are kept private from listeners outside the room.
STC	Sound Transmission Class. STC is an integer rating of how well a building partition attenuates airborne sound. It is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations. The STC rating is typically used to rate the sound transmission of a specific building element when tested in laboratory conditions where flanking paths around the assembly don't exist. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
Simple Tone	Any sound which can be judged as audible as a single pitch or set of single pitches.

Appendix B: Continuous and Short-Term Ambient Noise Measurement Results



Appendix B1: Continuous Noise Monitoring Results

Site: LT-1

Project: Martinez General Plan

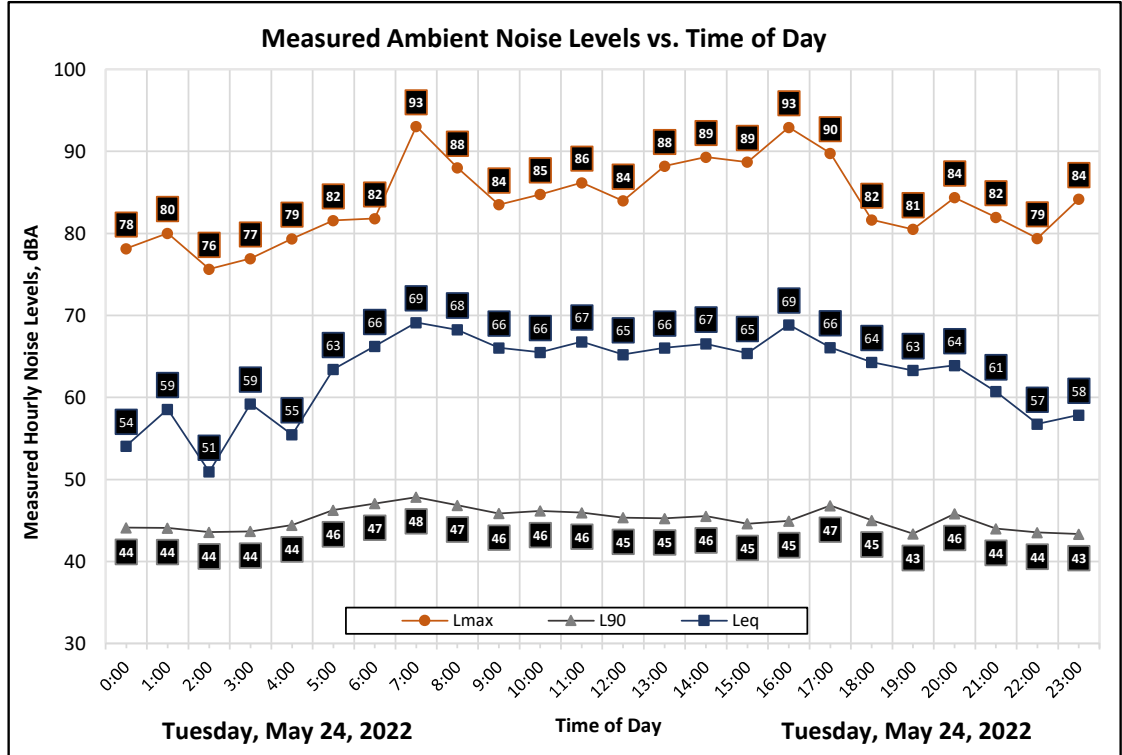
Meter: LDL 820-1

Location: Escobar St and Marina Vista Ave

Calibrator: CAL200

Coordinates: 38.0219931°, -122.1300832°

Date	Time	Measured Level, dBA			
		L _{eq}	L _{max}	L ₅₀	L ₉₀
Tuesday, May 24, 2022	0:00	54	78	45	44
Tuesday, May 24, 2022	1:00	59	80	46	44
Tuesday, May 24, 2022	2:00	51	76	45	44
Tuesday, May 24, 2022	3:00	59	77	45	44
Tuesday, May 24, 2022	4:00	55	79	46	44
Tuesday, May 24, 2022	5:00	63	82	49	46
Tuesday, May 24, 2022	6:00	66	82	56	47
Tuesday, May 24, 2022	7:00	69	93	62	48
Tuesday, May 24, 2022	8:00	68	88	60	47
Tuesday, May 24, 2022	9:00	66	84	58	46
Tuesday, May 24, 2022	10:00	66	85	57	46
Tuesday, May 24, 2022	11:00	67	86	58	46
Tuesday, May 24, 2022	12:00	65	84	57	45
Tuesday, May 24, 2022	13:00	66	88	58	45
Tuesday, May 24, 2022	14:00	67	89	59	46
Tuesday, May 24, 2022	15:00	65	89	58	45
Tuesday, May 24, 2022	16:00	69	93	60	45
Tuesday, May 24, 2022	17:00	66	90	60	47
Tuesday, May 24, 2022	18:00	64	82	57	45
Tuesday, May 24, 2022	19:00	63	81	53	43
Tuesday, May 24, 2022	20:00	64	84	54	46
Tuesday, May 24, 2022	21:00	61	82	50	44
Tuesday, May 24, 2022	22:00	57	79	46	44
Tuesday, May 24, 2022	23:00	58	84	45	43



Statistics	L _{eq}	L _{max}	L ₅₀	L ₉₀
Day Average	66	86	57	46
Night Average	61	80	47	44
Day Low	61	81	50	43
Day High	69	93	62	48
Night Low	51	76	45	43
Night High	66	84	56	47
L _{dn}	68	Day %	87	
CNEL	68	Night %	13	



Appendix B2: Continuous Noise Monitoring Results

Site: LT-2

Project: Martinez General Plan

Meter: LDL 820-8

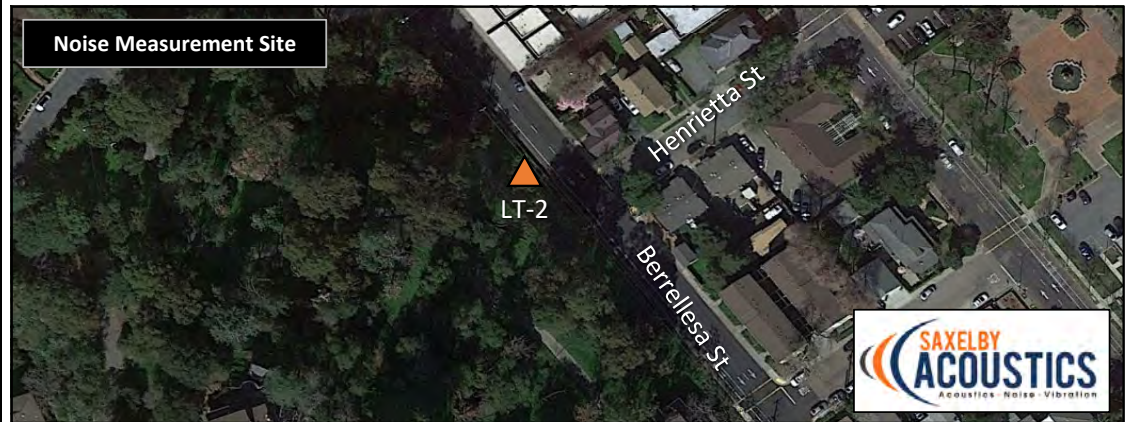
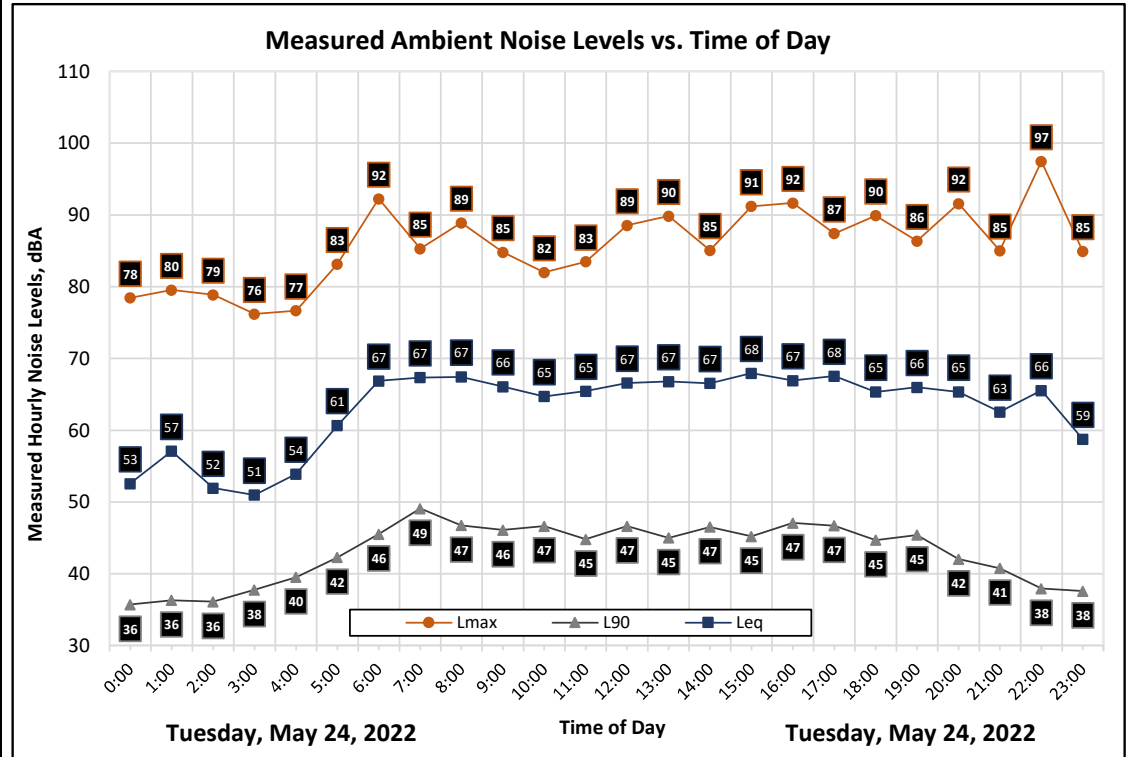
Location: Berrellesa St and Henrietta St

Calibrator: CAL200

Coordinates: 38.0132435°, -122.1363653°

Date	Time	Measured Level, dBA			
		L _{eq}	L _{max}	L ₅₀	L ₉₀
Tuesday, May 24, 2022	0:00	53	78	38	36
Tuesday, May 24, 2022	1:00	57	80	39	36
Tuesday, May 24, 2022	2:00	52	79	38	36
Tuesday, May 24, 2022	3:00	51	76	39	38
Tuesday, May 24, 2022	4:00	54	77	42	40
Tuesday, May 24, 2022	5:00	61	83	47	42
Tuesday, May 24, 2022	6:00	67	92	54	46
Tuesday, May 24, 2022	7:00	67	85	61	49
Tuesday, May 24, 2022	8:00	67	89	60	47
Tuesday, May 24, 2022	9:00	66	85	60	46
Tuesday, May 24, 2022	10:00	65	82	59	47
Tuesday, May 24, 2022	11:00	65	83	59	45
Tuesday, May 24, 2022	12:00	67	89	61	47
Tuesday, May 24, 2022	13:00	67	90	60	45
Tuesday, May 24, 2022	14:00	67	85	61	47
Tuesday, May 24, 2022	15:00	68	91	61	45
Tuesday, May 24, 2022	16:00	67	92	61	47
Tuesday, May 24, 2022	17:00	68	87	62	47
Tuesday, May 24, 2022	18:00	65	90	58	45
Tuesday, May 24, 2022	19:00	66	86	58	45
Tuesday, May 24, 2022	20:00	65	92	54	42
Tuesday, May 24, 2022	21:00	63	85	51	41
Tuesday, May 24, 2022	22:00	66	97	43	38
Tuesday, May 24, 2022	23:00	59	85	42	38

Statistics	L _{eq}	L _{max}	L ₅₀	L ₉₀
Day Average	66	87	59	46
Night Average	60	83	42	39
Day Low	63	82	51	41
Day High	68	92	62	49
Night Low	51	76	38	36
Night High	67	97	54	46
Ldn	68	Day %	89	
CNEL	68	Night %	11	



Appendix B3: Continuous Noise Monitoring Results

Site: LT-3

Project: Martinez General Plan

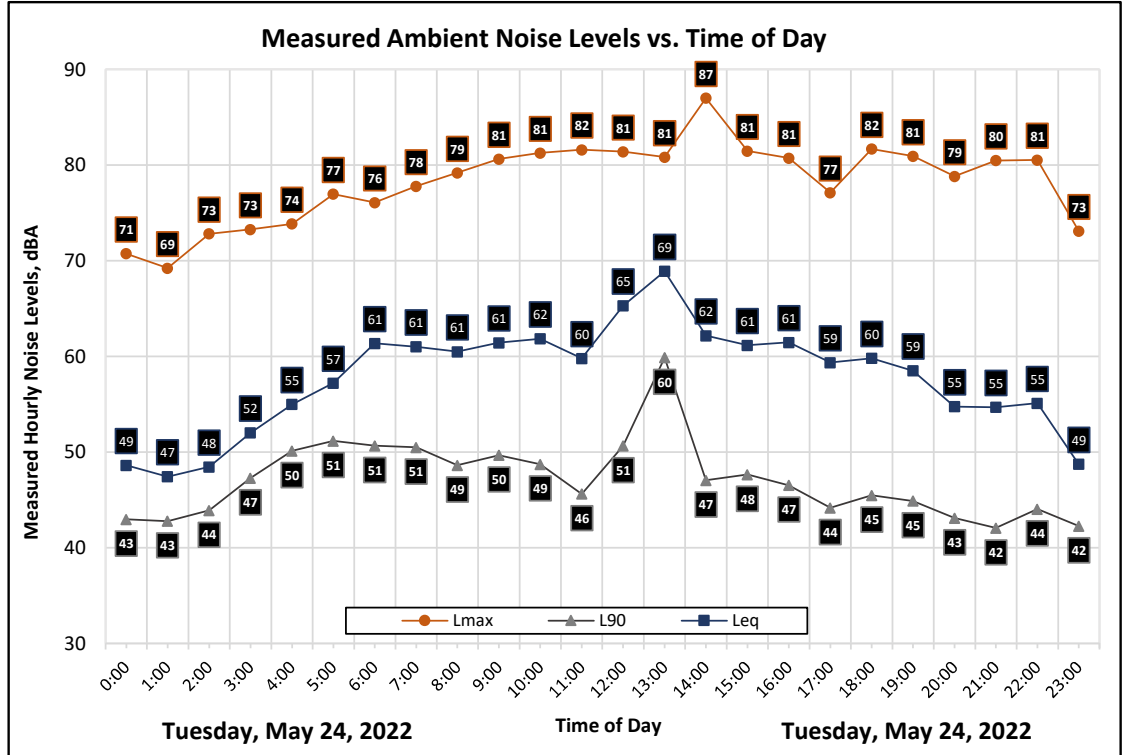
Meter: LDL 820-9

Location: Center Avenue between Pine Meadow & Vine Hill

Calibrator: CAL200

Coordinates: 37.9849403°, -122.1005692°

Date	Time	Measured Level, dBA			
		L _{eq}	L _{max}	L ₅₀	L ₉₀
Tuesday, May 24, 2022	0:00	49	71	45	43
Tuesday, May 24, 2022	1:00	47	69	45	43
Tuesday, May 24, 2022	2:00	48	73	46	44
Tuesday, May 24, 2022	3:00	52	73	50	47
Tuesday, May 24, 2022	4:00	55	74	52	50
Tuesday, May 24, 2022	5:00	57	77	54	51
Tuesday, May 24, 2022	6:00	61	76	55	51
Tuesday, May 24, 2022	7:00	61	78	54	51
Tuesday, May 24, 2022	8:00	61	79	57	49
Tuesday, May 24, 2022	9:00	61	81	58	50
Tuesday, May 24, 2022	10:00	62	81	59	49
Tuesday, May 24, 2022	11:00	60	82	50	46
Tuesday, May 24, 2022	12:00	65	81	63	51
Tuesday, May 24, 2022	13:00	69	81	69	60
Tuesday, May 24, 2022	14:00	62	87	53	47
Tuesday, May 24, 2022	15:00	61	81	52	48
Tuesday, May 24, 2022	16:00	61	81	52	47
Tuesday, May 24, 2022	17:00	59	77	48	44
Tuesday, May 24, 2022	18:00	60	82	48	45
Tuesday, May 24, 2022	19:00	59	81	47	45
Tuesday, May 24, 2022	20:00	55	79	46	43
Tuesday, May 24, 2022	21:00	55	80	47	42
Tuesday, May 24, 2022	22:00	55	81	47	44
Tuesday, May 24, 2022	23:00	49	73	45	42



Statistics	L _{eq}	L _{max}	L ₅₀	L ₉₀
Day Average	62	81	54	48
Night Average	55	74	49	46
Day Low	55	77	46	42
Day High	69	87	69	60
Night Low	47	69	45	42
Night High	61	81	55	51
L _{dn}	63	Day %	90	
CNEL	64	Night %	10	



Appendix B4: Continuous Noise Monitoring Results

Site: LT-4

Project: Martinez General Plan

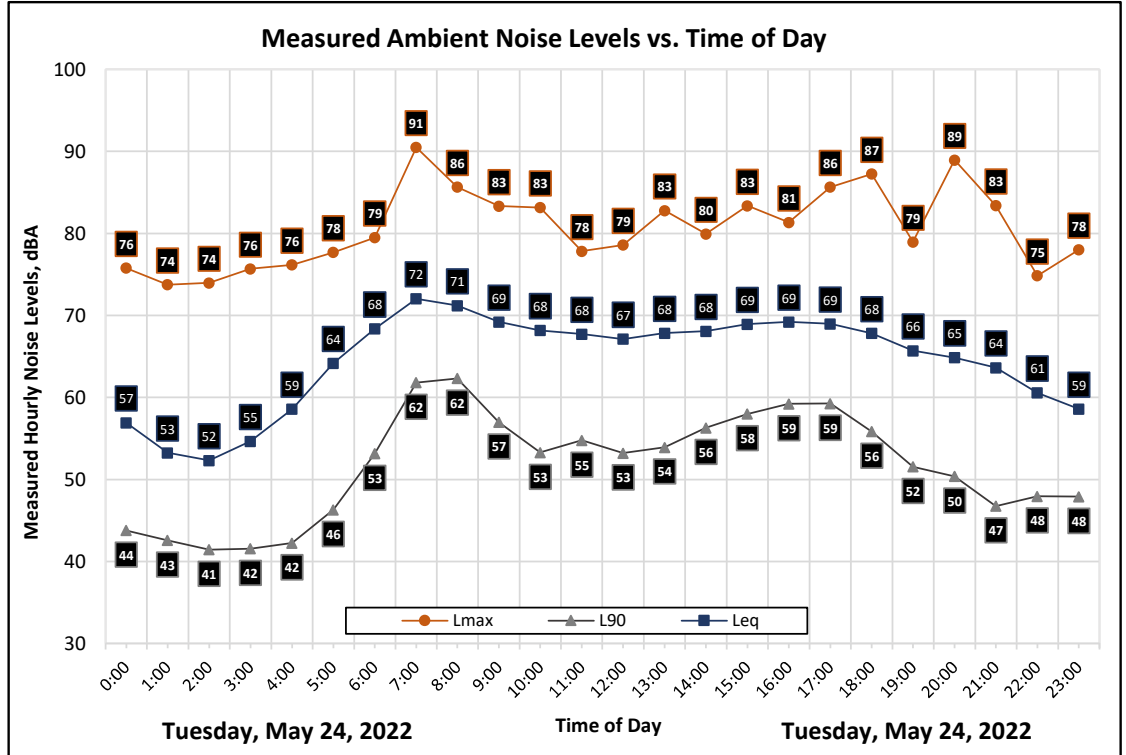
Meter: LDL 820-5

Location: Intersection of Alhambra Ave and Roanoke Dr

Calibrator: CAL200

Coordinates: 37.9625000°, -122.0963889°

Date	Time	Measured Level, dBA			
		L _{eq}	L _{max}	L ₅₀	L ₉₀
Tuesday, May 24, 2022	0:00	57	76	46	44
Tuesday, May 24, 2022	1:00	53	74	44	43
Tuesday, May 24, 2022	2:00	52	74	43	41
Tuesday, May 24, 2022	3:00	55	76	43	42
Tuesday, May 24, 2022	4:00	59	76	46	42
Tuesday, May 24, 2022	5:00	64	78	55	46
Tuesday, May 24, 2022	6:00	68	79	64	53
Tuesday, May 24, 2022	7:00	72	91	71	62
Tuesday, May 24, 2022	8:00	71	86	70	62
Tuesday, May 24, 2022	9:00	69	83	67	57
Tuesday, May 24, 2022	10:00	68	83	66	53
Tuesday, May 24, 2022	11:00	68	78	65	55
Tuesday, May 24, 2022	12:00	67	79	65	53
Tuesday, May 24, 2022	13:00	68	83	65	54
Tuesday, May 24, 2022	14:00	68	80	66	56
Tuesday, May 24, 2022	15:00	69	83	67	58
Tuesday, May 24, 2022	16:00	69	81	68	59
Tuesday, May 24, 2022	17:00	69	86	68	59
Tuesday, May 24, 2022	18:00	68	87	66	56
Tuesday, May 24, 2022	19:00	66	79	63	52
Tuesday, May 24, 2022	20:00	65	89	60	50
Tuesday, May 24, 2022	21:00	64	83	57	47
Tuesday, May 24, 2022	22:00	61	75	53	48
Tuesday, May 24, 2022	23:00	59	78	50	48



Statistics	L _{eq}	L _{max}	L ₅₀	L ₉₀
Day Average	69	83	66	56
Night Average	62	76	49	45
Day Low	64	78	57	47
Day High	72	91	71	62
Night Low	52	74	43	41
Night High	68	79	64	53
L _{dn}	70	Day %	90	
CNEL	70	Night %	10	



Appendix B5: Continuous Noise Monitoring Results

Site: LT-5

Project: Martinez General Plan

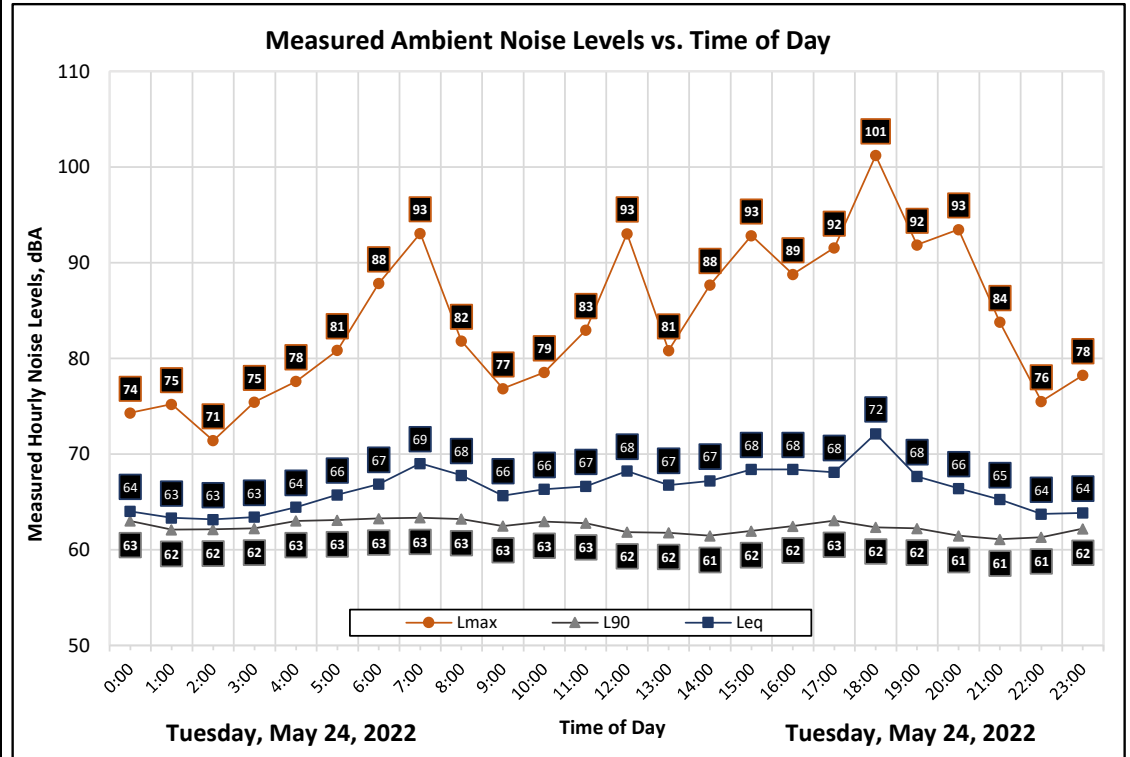
Meter: LDL 820-3

Location: Intersection of Pacheco Blvd & Howe Rd

Calibrator: CAL200

Coordinates: 38.0125575°, -122.1106238°

Date	Time	Measured Level, dBA			
		L _{eq}	L _{max}	L ₅₀	L ₉₀
Tuesday, May 24, 2022	0:00	64	74	64	63
Tuesday, May 24, 2022	1:00	63	75	63	62
Tuesday, May 24, 2022	2:00	63	71	63	62
Tuesday, May 24, 2022	3:00	63	75	63	62
Tuesday, May 24, 2022	4:00	64	78	64	63
Tuesday, May 24, 2022	5:00	66	81	64	63
Tuesday, May 24, 2022	6:00	67	88	65	63
Tuesday, May 24, 2022	7:00	69	93	66	63
Tuesday, May 24, 2022	8:00	68	82	66	63
Tuesday, May 24, 2022	9:00	66	77	64	63
Tuesday, May 24, 2022	10:00	66	79	65	63
Tuesday, May 24, 2022	11:00	67	83	65	63
Tuesday, May 24, 2022	12:00	68	93	65	62
Tuesday, May 24, 2022	13:00	67	81	65	62
Tuesday, May 24, 2022	14:00	67	88	65	61
Tuesday, May 24, 2022	15:00	68	93	65	62
Tuesday, May 24, 2022	16:00	68	89	65	62
Tuesday, May 24, 2022	17:00	68	92	65	63
Tuesday, May 24, 2022	18:00	72	101	64	62
Tuesday, May 24, 2022	19:00	68	92	64	62
Tuesday, May 24, 2022	20:00	66	93	63	61
Tuesday, May 24, 2022	21:00	65	84	63	61
Tuesday, May 24, 2022	22:00	64	76	63	61
Tuesday, May 24, 2022	23:00	64	78	63	62



Statistics	L _{eq}	L _{max}	L ₅₀	L ₉₀
Day Average	68	88	65	62
Night Average	65	77	64	63
Day Low	65	77	63	61
Day High	72	101	66	63
Night Low	63	71	63	61
Night High	67	88	65	63
L _{dn}	71	Day %	80	
CNEL	72	Night %	20	



Appendix B6: Continuous Noise Monitoring Results

Site: LT-6

Project: Martinez General Plan

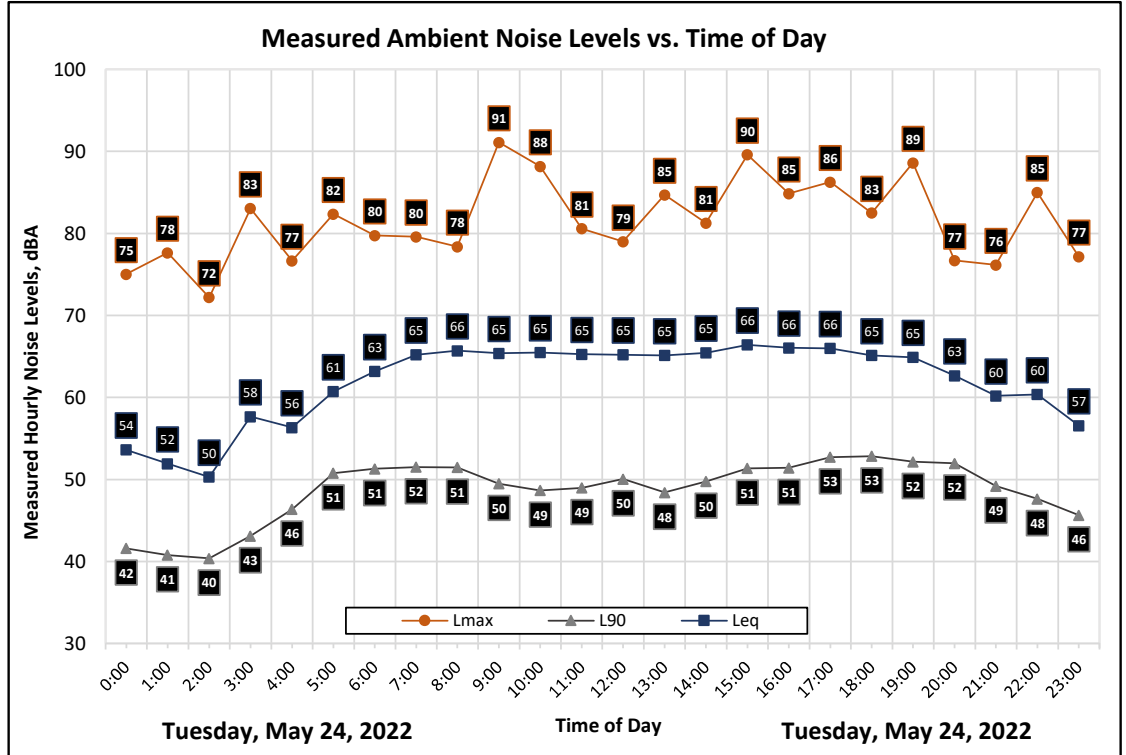
Meter: LDL 820-2

Location: Arnold Dr East of Morello Ave

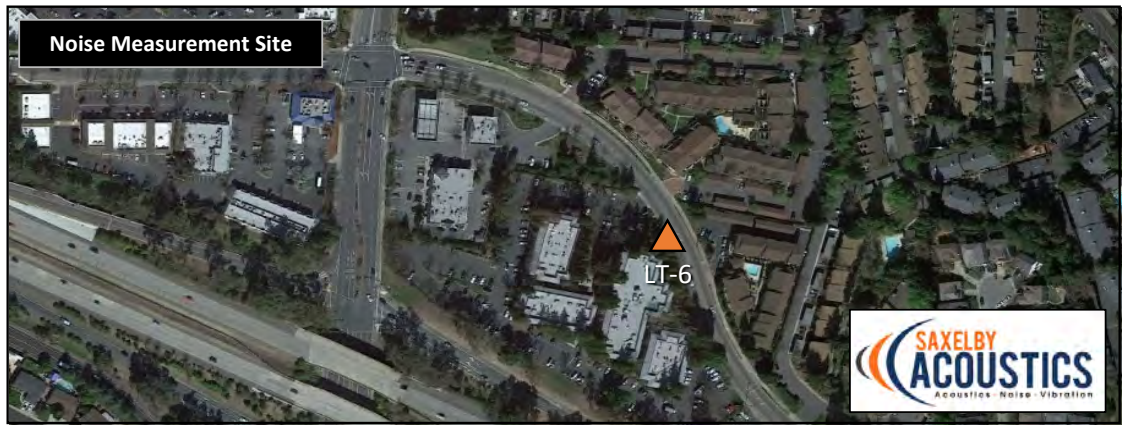
Calibrator: CAL200

Coordinates: 37.9931817°, -122.0989357°

Date	Time	Measured Level, dBA			
		L _{eq}	L _{max}	L ₅₀	L ₉₀
Tuesday, May 24, 2022	0:00	54	75	42	42
Tuesday, May 24, 2022	1:00	52	78	41	41
Tuesday, May 24, 2022	2:00	50	72	40	40
Tuesday, May 24, 2022	3:00	58	83	43	43
Tuesday, May 24, 2022	4:00	56	77	46	46
Tuesday, May 24, 2022	5:00	61	82	51	51
Tuesday, May 24, 2022	6:00	63	80	51	51
Tuesday, May 24, 2022	7:00	65	80	52	52
Tuesday, May 24, 2022	8:00	66	78	51	51
Tuesday, May 24, 2022	9:00	65	91	50	50
Tuesday, May 24, 2022	10:00	65	88	49	49
Tuesday, May 24, 2022	11:00	65	81	49	49
Tuesday, May 24, 2022	12:00	65	79	50	50
Tuesday, May 24, 2022	13:00	65	85	48	48
Tuesday, May 24, 2022	14:00	65	81	50	50
Tuesday, May 24, 2022	15:00	66	90	51	51
Tuesday, May 24, 2022	16:00	66	85	51	51
Tuesday, May 24, 2022	17:00	66	86	53	53
Tuesday, May 24, 2022	18:00	65	83	53	53
Tuesday, May 24, 2022	19:00	65	89	52	52
Tuesday, May 24, 2022	20:00	63	77	52	52
Tuesday, May 24, 2022	21:00	60	76	49	49
Tuesday, May 24, 2022	22:00	60	85	48	48
Tuesday, May 24, 2022	23:00	57	77	46	46



Statistics	L _{eq}	L _{max}	L ₅₀	L ₉₀
Day Average	65	83	51	51
Night Average	58	79	45	45
Day Low	60	76	48	48
Day High	66	91	53	53
Night Low	50	72	40	40
Night High	63	85	51	51
L _{dn}	66	Day %	90	
CNEL	67	Night %	10	



Appendix B7 : Short Term Noise Monitoring Results

Site: ST-1

Project: Martinez General Plan

Meter: LDL 831-3

Location:

Calibrator: CAL200

Coordinates: 38.0120686°, -122.1154079°

Start: 2022-05-23 12:38:58

Stop: 2022-05-23 12:48:58

SLM: Model 831

Serial: 1329

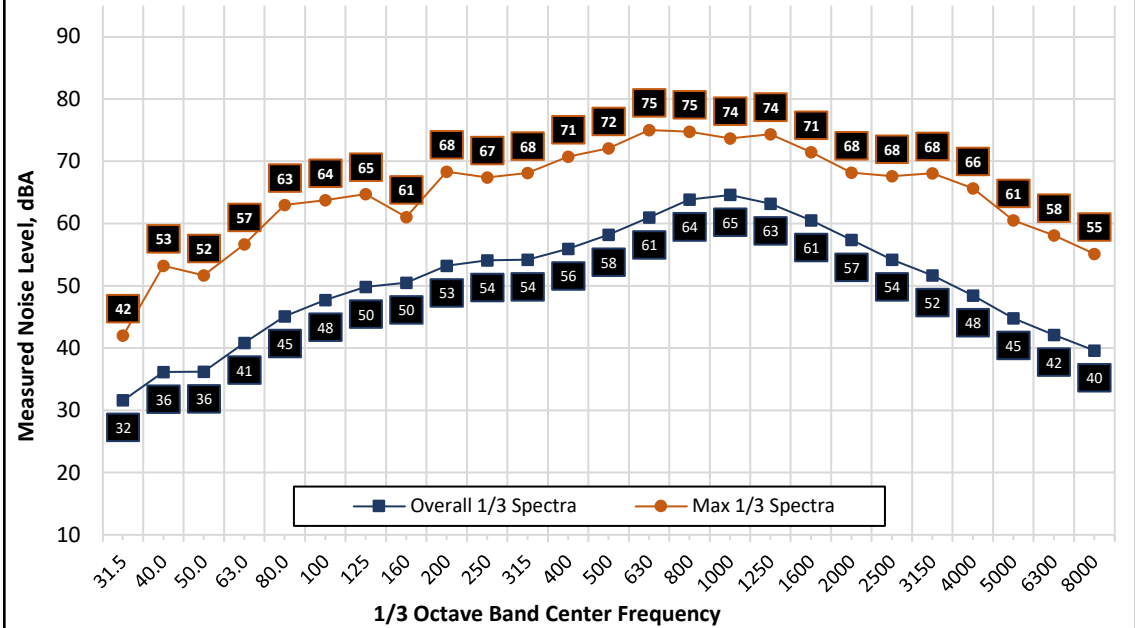
Measurement Results, dBA

Duration: 0:10
 L_{eq}: 71
 L_{max}: 83
 L_{min}: 56
 L₅₀: 70
 L₉₀: 61

Notes

Primary noise source was traffic on the local roadway network

Measured Ambient Noise Frequency Spectrum



Noise Measurement Site



Appendix B8 : Short Term Noise Monitoring Results

Site: ST-2

Project: Martinez General Plan

Meter: LDL 831-3

Location:

Calibrator: CAL200

Coordinates: 38.0095255°, -122.1195934°

Start: 2022-05-25 12:53:47

Stop: 2022-05-25 13:03:47

SLM: Model 831

Serial: 1329

Measurement Results, dBA

Duration: 0:10

L_{eq}: 67

L_{max}: 77

L_{min}: 43

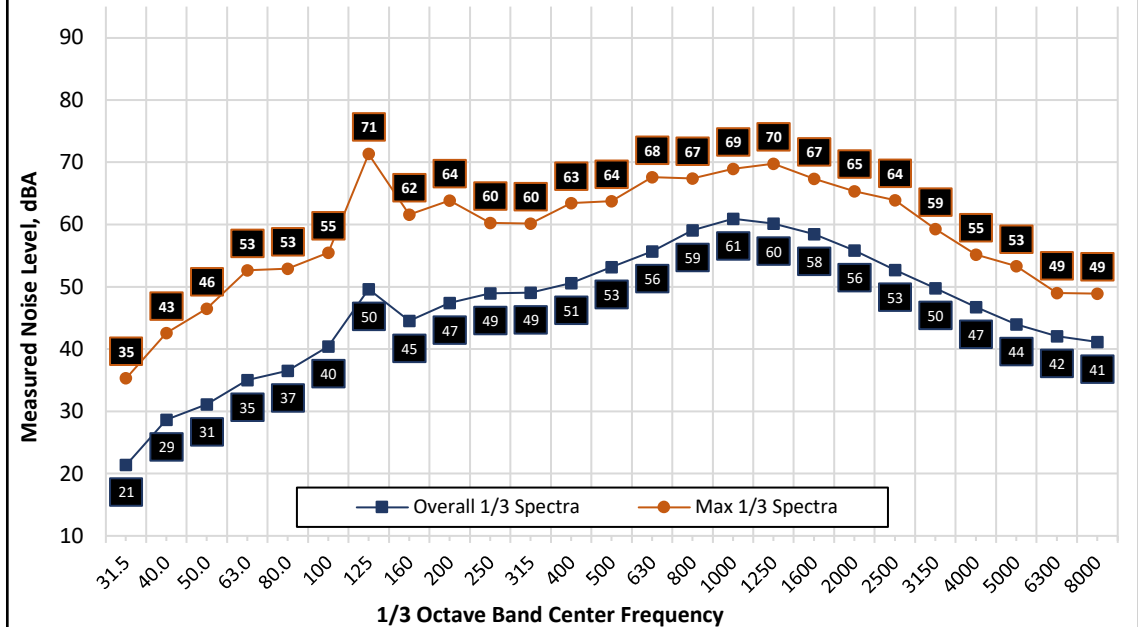
L₅₀: 65

L₉₀: 51

Notes

Primary noise source was traffic on the local roadway network

Measured Ambient Noise Frequency Spectrum



Noise Measurement Site



Appendix B9 : Short Term Noise Monitoring Results

Site: ST-3

Project: Martinez General Plan

Meter: LDL 831-3

Location:

Calibrator: CAL200

Coordinates: 38.0095255°, -122.1195934°

Start: 2022-05-23 11:56:49

Stop: 2022-05-23 12:30:16

SLM: Model 831

Serial: 1329

Measurement Results, dBA

Duration: 0:10

L_{eq} : 65

L_{max} : 82

L_{min} : 52

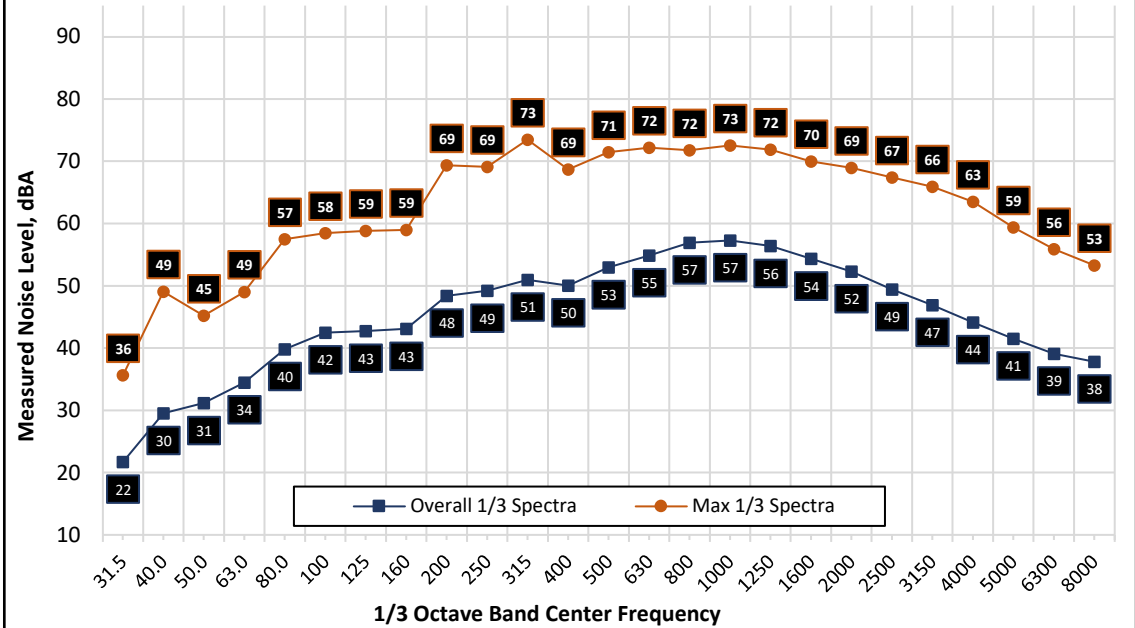
L_{50} : 59

L_{90} : 55

Notes

Primary noise source was traffic on the local roadway network

Measured Ambient Noise Frequency Spectrum



Noise Measurement Site



Appendix B10 : Short Term Noise Monitoring Results

Site: ST-4

Project: Martinez General Plan

Meter: LDL 831-3

Location:

Calibrator: CAL200

Coordinates: 38.0095255°, -122.1195934°

Start: 2022-05-25 12:37:54

Stop: 2022-05-25 12:47:54

SLM: Model 831

Serial: 1329

Measurement Results, dBA

Duration: 0:10

L_{eq}: 57

L_{max}: 72

L_{min}: 39

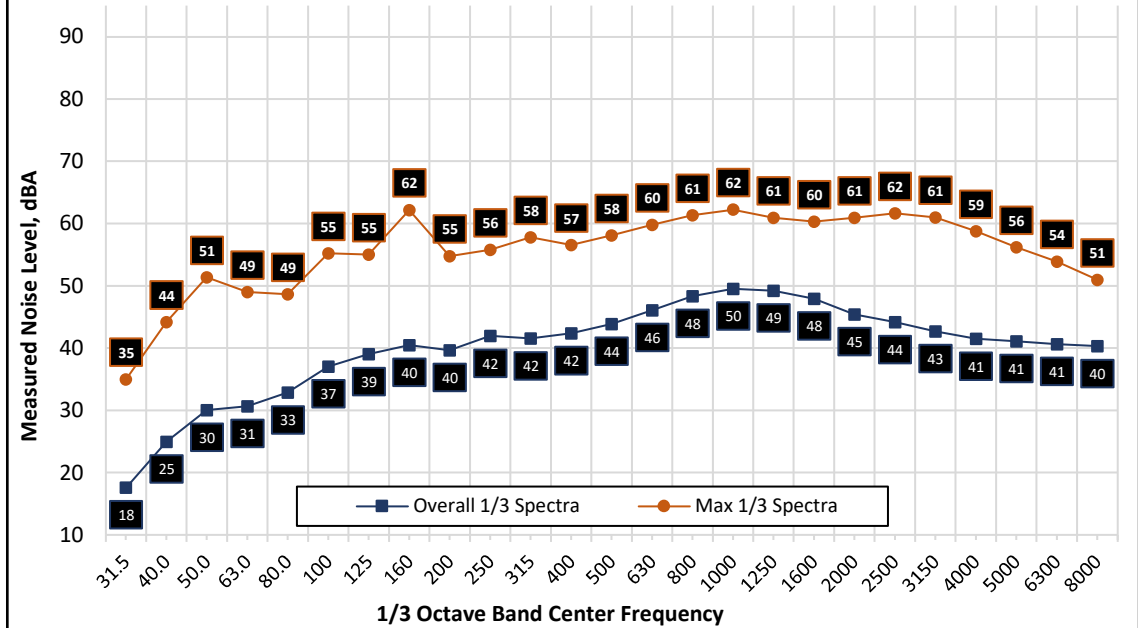
L₅₀: 50

L₉₀: 44

Notes

Primary noise source was traffic on the local roadway network

Measured Ambient Noise Frequency Spectrum



Noise Measurement Site



Appendix B11 : Short Term Noise Monitoring Results

Site: ST-5

Project: Martinez General Plan

Meter: LDL 831-3

Location:

Calibrator: CAL200

Coordinates: 38.0095255°, -122.1195934°

Start: 2022-05-23 11:44:27

Stop: 2022-05-23 11:54:27

SLM: Model 831

Serial: 1329

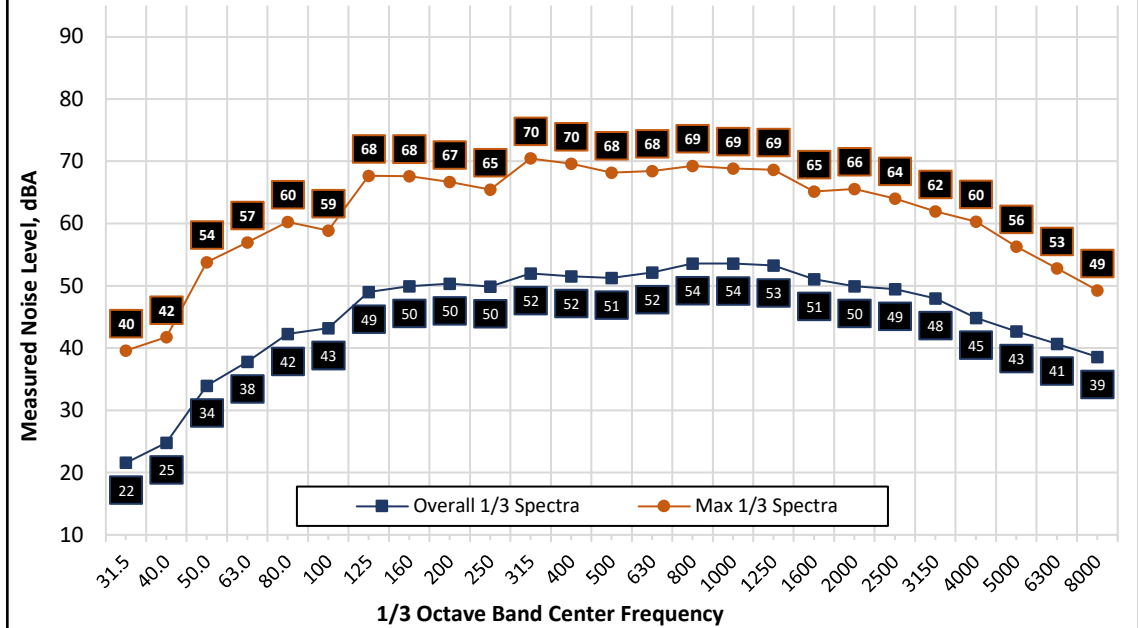
Measurement Results, dBA

Duration: 0:10
 L_{eq}: 63
 L_{max}: 78
 L_{min}: 49
 L₅₀: 59
 L₉₀: 53

Notes

Primary noise source was traffic on the local roadway network

Measured Ambient Noise Frequency Spectrum



Noise Measurement Site



Appendix B12 : Short Term Noise Monitoring Results

Site: ST-2

Project: Martinez General Plan

Meter: LDL 831-3

Location:

Calibrator: CAL200

Coordinates: 38.0011572°, -122.0764216°

Start: 2022-05-25 13:59:32

Stop: 2022-05-25 14:09:45

SLM: Model 831

Serial: 1329

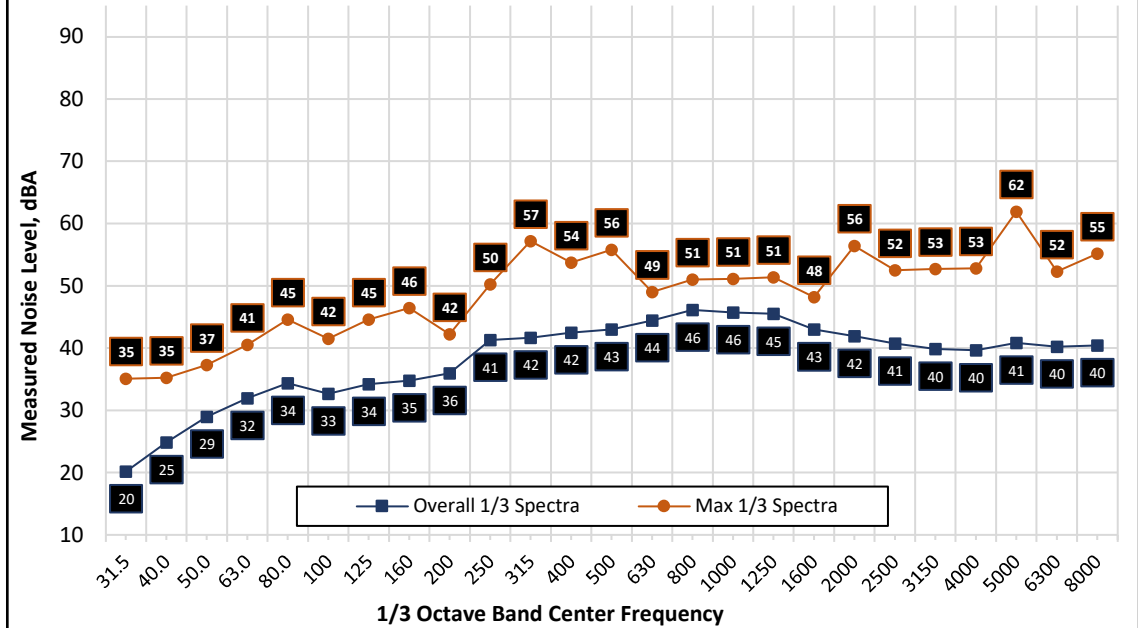
Measurement Results, dBA

Duration: 0:10
 L_{eq}: 54
 L_{max}: 66
 L_{min}: 50
 L₅₀: 54
 L₉₀: 52

Notes

Primary noise source was traffic on the local roadway network

Measured Ambient Noise Frequency Spectrum



Noise Measurement Site



Appendix B13 : Short Term Noise Monitoring Results

Site: ST-3

Project: Martinez General Plan

Meter: LDL 831-3

Location:

Calibrator: CAL200

Coordinates: 37.9834264°, -122.1255868°

Start: 2022-05-25 11:18:02

Stop: 2022-05-25 11:28:02

SLM: Model 831

Serial: 1329

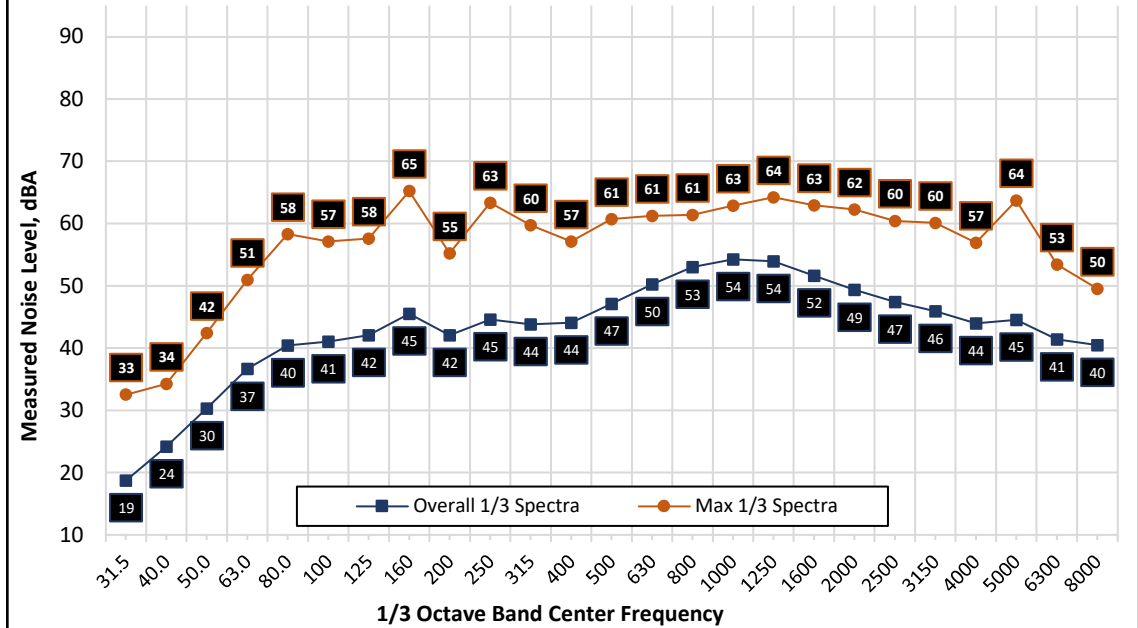
Measurement Results, dBA

Duration: 0:10
 L_{eq}: 61
 L_{max}: 73
 L_{min}: 48
 L₅₀: 58
 L₉₀: 52

Notes

Primary noise source was traffic on the local roadway network

Measured Ambient Noise Frequency Spectrum



Noise Measurement Site



Appendix B14 : Short Term Noise Monitoring Results

Site: ST-8

Project: Martinez General Plan

Meter: LDL 831-3

Location:

Calibrator: CAL200

Coordinates: 37.9774528°, -122.0901297°

Start: 2022-05-23 14:15:23

Stop: 2022-05-23 14:25:23

SLM: Model 831

Serial: 1329

Measurement Results, dBA

Duration: 0:10

L_{eq} : 53

L_{max} : 63

L_{min} : 44

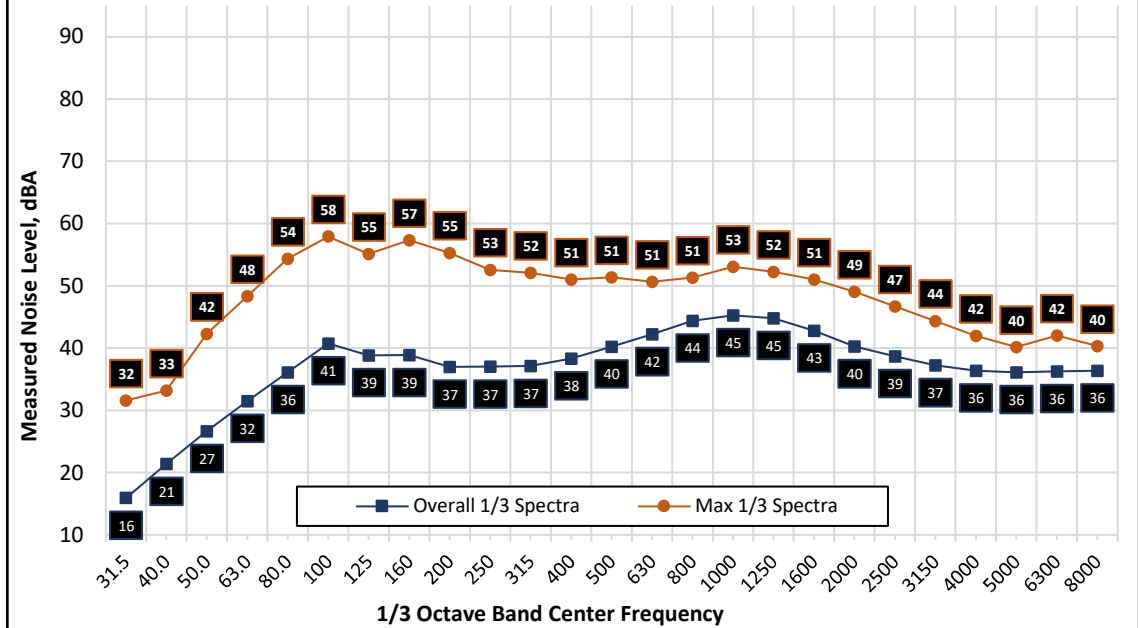
L_{50} : 52

L_{90} : 49

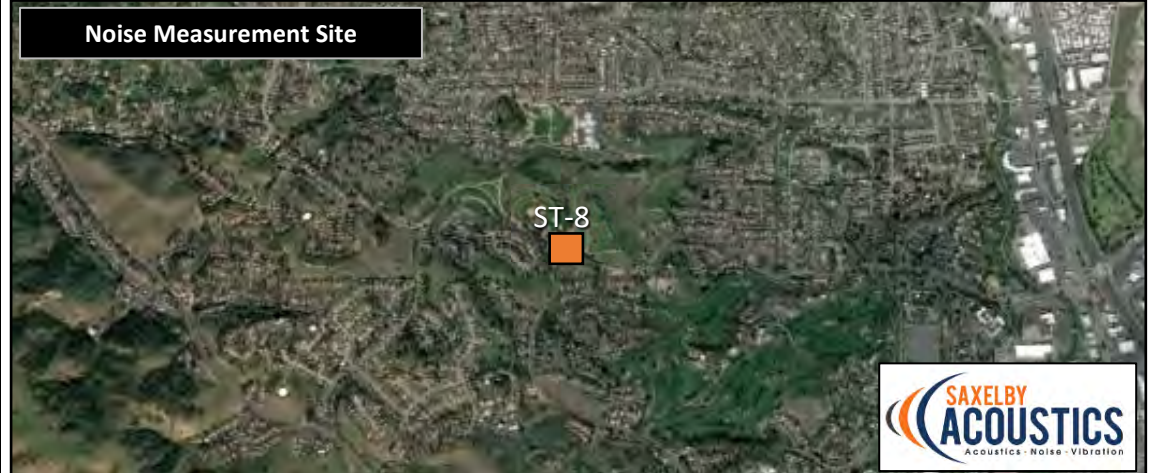
Notes

Primary noise source was traffic on the local roadway network

Measured Ambient Noise Frequency Spectrum



Noise Measurement Site



Appendix B15 : Short Term Noise Monitoring Results

Site: ST-9

Project: Martinez General Plan

Meter: LDL 831-3

Location:

Calibrator: CAL200

Coordinates: 37.9659044°, -122.1295602°

Start: 2022-05-25 10:51:49

Stop: 2022-05-25 11:01:49

SLM: Model 831

Serial: 1329

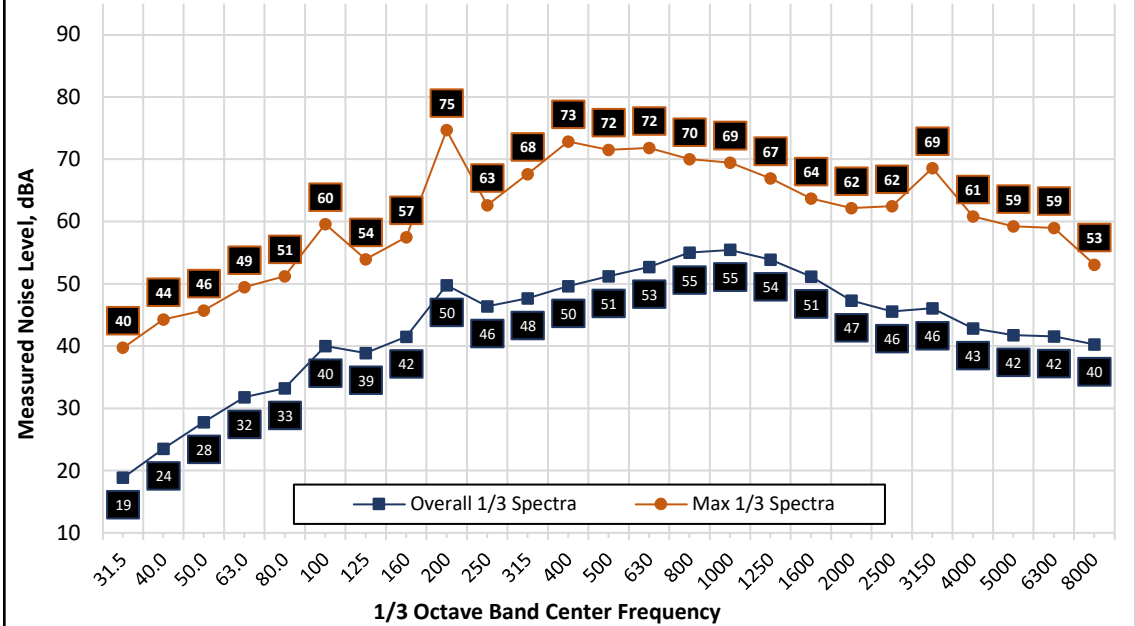
Measurement Results, dBA

Duration: 0:10
 L_{eq}: 63
 L_{max}: 81
 L_{min}: 36
 L₅₀: 51
 L₉₀: 39

Notes

Primary noise source was traffic on the local roadway network

Measured Ambient Noise Frequency Spectrum



Noise Measurement Site



Appendix C: Traffic Noise Calculation Inputs and Results



Appendix C-1

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 220405

Description: Martinez General Plan EIR - Existing Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No			Level, dBA
												Offset			
												60 dBA	65 dBA	70 dBA	
1	Alhambra Ave	Rt 4 to Alhambra Valley Rd	14,250	90	0	10	1.0%	1.0%	45	60	-5	162	75	35	61.5
2	Alhambra Ave	Alhambra Valley to Blue Ridge Dr	9,710	90	0	10	1.0%	1.0%	35	50	-5	83	39	18	58.3
3	Alhambra Ave	Escobar St to Shell Ave/D St	8,840	90	0	10	1.0%	1.0%	25	115	0	52	24	11	54.8
4	Alhambra Ave	Shell Ave/D St to Rt 4	22,450	90	0	10	1.0%	1.0%	25	130	0	97	45	21	58.1
5	Arnold Dr	Morello Ave to I-680	1,290	90	0	10	1.0%	1.0%	25	200	-5	14	7	3	37.9
6	Arnold Dr	Howe Rd to Morello Ave	3,900	90	0	10	1.0%	1.0%	35	80	-5	45	21	10	51.3
7	Berrellessa St	Escobar St to Alhambra Ave	5,780	89	0	11	1.0%	1.0%	30	115	0	52	24	11	54.8
8	Center Ave	Morello Ave to Pacheco Blvd/I680	3,110	90	0	10	1.0%	1.0%	25	80	0	26	12	6	52.7
9	Center Ave	Rt 4 to Morello Ave	3,550	90	0	10	1.0%	1.0%	25	65	0	28	13	6	54.6
10	Court St	Escobar St to Pine St	5,090	80	0	20	1.0%	1.0%	35	115	0	70	33	15	56.8
11	EB RT 4	West of Alhambra Ave	17,350	90	0	10	4.0%	2.3%	65	220	0	390	181	84	63.7
12	Escobar St	Alhambra Ave to Court St	3,500	87	0	13	1.0%	1.0%	25	270	0	31	14	7	45.8
13	Escobar St	Court St to Marina Vista Ave	4,680	87	0	13	1.0%	1.0%	25	80	0	37	17	8	55.0
14	Howe Rd	South of Pacheco Blvd	980	80	0	20	1.0%	1.0%	35	80	0	23	11	5	52.0
15	Marina Vista Ave	Alhambra Ave to Court St	5,470	87	0	13	1.0%	1.0%	35	395	0	62	29	13	48.0
16	Marina Vista Ave	Court St to Escobar St	4,670	87	0	13	1.0%	1.0%	35	110	0	56	26	12	55.6
17	Marina Vista Ave	Escobar St to Shell Ave	9,890	87	0	13	1.0%	1.0%	35	80	0	92	43	20	60.9
18	Marina Vista Ave	Shell Ave to I-680	19,920	87	0	13	1.0%	1.0%	35	4100	0	147	68	32	38.3
19	Morello Ave	Pacheco Blvd to Rt 4	22,210	90	0	10	1.0%	1.0%	25	65	0	96	45	21	62.5
20	Morello Ave	Rt 4 to Center Ave	19,270	90	0	10	1.0%	1.0%	25	80	0	87	41	19	60.6
21	Morello Ave	South of Center Ave	15,100	90	0	10	1.0%	1.0%	35	80	0	112	52	24	62.2
22	Muir Rd	East of Morello Ave	4,680	90	0	10	1.0%	1.0%	40	80	-5	64	29	14	53.5
23	Muir Rd	West of Morello Ave	1,000	90	0	10	1.0%	1.0%	25	80	-5	12	6	3	42.7
24	NB I-680	Marina Vista Ave to Pacheco Blvd	75,550	90	0	10	2.4%	2.4%	65	130	-5	1017	472	219	68.4
25	NB I-680	North of Marina Vista Ave	78,440	90	0	10	2.8%	2.3%	65	5250	0	1045	485	225	49.5
26	Pacheco Blvd	Arthur Rd to Rt 4	4,890	80	0	20	1.0%	1.0%	40	230	-5	85	39	18	48.5
27	Pacheco Blvd	Morello Ave to I-680	14,640	80	0	20	1.0%	1.0%	40	165	0	176	82	38	60.4
28	Pacheco Blvd	Pine St to Shell Ave	7,770	80	0	20	1.0%	1.0%	25	80	0	62	29	13	58.3
29	Pine St	Court St to Pacheco Blvd	7,850	80	0	20	1.0%	1.0%	25	100	0	62	29	13	56.9
30	Pine St	Pacheco Blvd to Shell Ave	5,360	80	0	20	1.0%	1.0%	25	115	0	48	22	10	54.4
31	Pine St	Shell Ave to Howe Rd	14,540	80	0	20	1.0%	1.0%	25	80	0	94	44	20	61.0
32	Shell Ave	Marina Vista Ave to Pacheco Blvd	10,610	80	0	20	1.0%	1.0%	25	200	0	76	35	16	53.7
33	Shell Ave	Pine St to Alhambra Ave	8,100	80	0	20	1.0%	1.0%	25	100	0	64	29	14	57.0
34	SR 4	West of Pacheco	62,000	80	0	20	4.0%	2.3%	65	200	0	1180	548	254	71.6



Appendix C-2

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 220405

Description: Martinez General Plan EIR - Future 2040

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset			Level, dBA
												60 dBA	65 dBA	70 dBA	
1	Alhambra Ave	Rt 4 to Alhambra Valley Rd	17,150	90	0	10	1.0%	1.0%	45	60	-5	183	85	39	62.3
2	Alhambra Ave	Alhambra Valley to Blue Ridge Dr	13,480	90	0	10	1.0%	1.0%	35	50	-5	104	48	22	59.8
3	Alhambra Ave	Escobar St to Shell Ave/D St	17,340	90	0	10	1.0%	1.0%	25	115	0	81	38	18	57.8
4	Alhambra Ave	Shell Ave/D St to Rt 4	28,820	90	0	10	1.0%	1.0%	25	130	0	114	53	25	59.2
5	Arnold Dr	Morello Ave to I-680	1,730	90	0	10	1.0%	1.0%	25	200	-5	18	8	4	39.1
6	Arnold Dr	Howe Rd to Morello Ave	4,390	90	0	10	1.0%	1.0%	35	80	-5	49	23	11	51.8
7	Berrellessa St	Escobar St to Alhambra Ave	9,070	89	0	11	1.0%	1.0%	30	115	0	70	32	15	56.8
8	Center Ave	Morello Ave to Pacheco Blvd/I680	2,380	90	0	10	1.0%	1.0%	25	80	0	22	10	5	51.5
9	Center Ave	Rt 4 to Morello Ave	3,980	90	0	10	1.0%	1.0%	25	65	0	31	14	7	55.1
10	Court St	Escobar St to Pine St	7,840	80	0	20	1.0%	1.0%	35	115	0	94	43	20	58.7
11	EB RT 4	West of Alhambra Ave	19,490	90	0	10	4.0%	2.3%	65	220	0	421	195	91	64.2
12	Escobar St	Alhambra Ave to Court St	4,890	87	0	13	1.0%	1.0%	25	270	0	38	18	8	47.3
13	Escobar St	Court St to Marina Vista Ave	5,540	87	0	13	1.0%	1.0%	25	80	0	42	19	9	55.7
14	Howe Rd	South of Pacheco Blvd	1,950	80	0	20	1.0%	1.0%	35	80	0	37	17	8	55.0
15	Marina Vista Ave	Alhambra Ave to Court St	6,080	87	0	13	1.0%	1.0%	35	395	0	67	31	14	48.4
16	Marina Vista Ave	Court St to Escobar St	5,680	87	0	13	1.0%	1.0%	35	110	0	64	30	14	56.4
17	Marina Vista Ave	Escobar St to Shell Ave	10,610	87	0	13	1.0%	1.0%	35	80	0	97	45	21	61.2
18	Marina Vista Ave	Shell Ave to I-680	24,780	87	0	13	1.0%	1.0%	35	4100	0	170	79	37	39.3
19	Morello Ave	Pacheco Blvd to Rt 4	23,210	90	0	10	1.0%	1.0%	25	65	0	99	46	21	62.7
20	Morello Ave	Rt 4 to Center Ave	20,580	90	0	10	1.0%	1.0%	25	80	0	91	42	20	60.9
21	Morello Ave	South of Center Ave	16,590	90	0	10	1.0%	1.0%	35	80	0	119	55	26	62.6
22	Muir Rd	East of Morello Ave	4,700	90	0	10	1.0%	1.0%	40	80	-5	64	30	14	53.5
23	Muir Rd	West of Morello Ave	1,000	90	0	10	1.0%	1.0%	25	80	-5	12	6	3	42.7
24	NB I-680	Marina Vista Ave to Pacheco Blvd	98,170	90	0	10	2.4%	2.4%	65	130	-5	1211	562	261	69.5
25	NB I-680	North of Marina Vista Ave	103,850	90	0	10	2.8%	2.3%	65	5250	0	1260	585	272	50.7
26	Pacheco Blvd	Arthur Rd to Rt 4	10,610	80	0	20	1.0%	1.0%	40	230	-5	142	66	31	51.9
27	Pacheco Blvd	Morello Ave to I-680	12,410	80	0	20	1.0%	1.0%	40	165	0	158	73	34	59.7
28	Pacheco Blvd	Pine St to Shell Ave	6,500	80	0	20	1.0%	1.0%	25	80	0	55	25	12	57.5
29	Pine St	Court St to Pacheco Blvd	9,960	80	0	20	1.0%	1.0%	25	100	0	73	34	16	57.9
30	Pine St	Pacheco Blvd to Shell Ave	8,160	80	0	20	1.0%	1.0%	25	115	0	64	30	14	56.2
31	Pine St	Shell Ave to Howe Rd	16,890	80	0	20	1.0%	1.0%	25	80	0	104	48	22	61.7
32	Shell Ave	Marina Vista Ave to Pacheco Blvd	15,160	80	0	20	1.0%	1.0%	25	200	0	96	45	21	55.3
33	Shell Ave	Pine St to Alhambra Ave	10,810	80	0	20	1.0%	1.0%	25	100	0	77	36	17	58.3



