PUBLIC REVIEW DRAFT

Gilroy 2040 General Plan EIR

SCH# 2015082014

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Prepared by

EMC Planning Group

Gilroy 2040 General Plan

Public Review Draft Environmental Impact Report

SCH# 2015082014

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ES.0
EXECUTIVE SUMMARY

ES.1 CEQA REQUIREMENTS

CEQA Guidelines Section 15123 requires an EIR to contain a brief summary of the proposed project (2040 General Plan) and its consequences; significant effects and the proposed mitigation measures; alternatives to reduce or avoid the effect; areas of controversy known to the lead agency including issues raised by agencies and the public; and issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects.

ES.2 PROPOSED PROJECT SUMMARY

Detailed project description information, including figures illustrating the project location and components, is included in Section 2.0 Project Description.

The draft Gilroy 2040 General Plan contains the following nine elements: land use, mobility, economic prosperity, housing, public facilities and services, parks and recreation, natural and cultural resources, potential hazards, and environmental justice. Each proposed element contains a set of goals, policies, and programs.

The plan retains the existing Urban Growth Boundary, approved by initiative in 2016 by the voters in Gilroy, with the purpose of protecting the unique character of Gilroy and the agriculture and open space character of the surrounding areas. The development potential includes up to 6,477 new housing units (single-family and multi-family), an additional population of 19,756, and 21,434 new jobs. This development potential could be reached assuming all under-utilized land is redeveloped and vacant land is developed, all consistent with the land use designations in the proposed Gilroy 2040 General Plan Land Use Diagram.

ES.3 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

This EIR has identified significant impacts that would be associated with implementation of the 2040 General Plan. Table S-1: Summary of Significant Impacts and Mitigation Measures, provides a summary of these impacts and a summary of measures, in addition to 2040 General Plan proposed goals and policies, that are proposed to mitigate the impacts.

ES.4 AREAS OF KNOWN CONTROVERSY

CEQA Guidelines section 15123, Summary, requires a discussion of areas of controversy known to the lead agency including issues raised by agencies and the public. The following issues were raised by public agencies in comments on the 2020 Notice of Preparation. Issues raised during the 2014 Notice of Preparation period are not listed here as many of the issues were associated with a much larger development area than what is currently identified in the 2040 General Plan. In 2016, the people of the City of Gilroy approved an Urban Growth Boundary by initiative to protect the unique character of the city and the agriculture and open space character of the surrounding areas. The 2040 General Plan does not propose to expand the existing Urban Growth Boundary. Although the Notice of Preparation responses from 2014 are not summarized here, each of the issues raised are addressed in the EIR.

Native American Heritage Commission (February 4, 2020)

The commission reminded the City of Gilroy to comply with the noticing and consultation requirements of AB52 and SB18. This legislation requires a lead agency to consult with California Native American Tribes that are traditionally and cultural affiliated with the geographic area affect by a project. No such tribes have requested consultation pursuant to AB52. The City of Gilroy offered consultation under SB18 and no responses were received. Therefore, the city has adequately completed with both AB52 and SB18.

California Department of Fish and Wildlife, Bay Delta Region (February 25, 2020)

The department expressed concerns regarding possible impacts to 16 special-status animals and plants species and requested the EIR evaluate the potential impacts associated with each species. The department also expressed concern that the City of Gilroy continue to comply with the Santa Clara Valley Habitat Conservation Plan and address those special-status species that are not covered under the habitat plan. Section 3.4, Biological Resources, addresses all of the issues raised by the department.

Table S-1 Summary of Significant Impacts and Mitigation Measures

New Significant Impact	Significance Level without Mitigation	Mitigation Measure(s)	Significance Level after Mitigation
Air Quality			
Inconsistent with the Clean Air Plan	Significant	AQ-1. Add the following new policy to the Gilroy 2040 General Plan Natural and Cultural Resources element: Reduce Construction Emissions. Require the use of low emissions construction equipment for public and private projects, consistent with the air district 2017 Clean Air Plan.	Less than Significant
	Significant	AQ-2. Add the following new policy to the Gilroy 2040 General Plan Natural and Cultural Resources element: Implement Dust-Control Measures. Require the implementation of the air district's dust control measures during construction of individual projects, consistent with the air district 2017 Clean Air Plan.	Less than Significant
Increase in Operational Criteria Air Pollutant Emissions Resulting from an Increase in Vehicle Miles Traveled Will Degrade Air Quality	Significant	No mitigation. Although the Gilroy 2040 General Plan includes numerous policies that are intended to reduce VMT, it is not possible to accurately quantify the VMT reductions that would result, and therefore, there is no assurance that VMT could be reduced by the required 32.6 percent that would reduce the impact to a less-than-significant level.	Significant and Unavoidable
Adverse Effects to Sensitive Receptors from Toxic Air Contaminants	Significant	AQ-3. Add the following new policy to the Gilroy 2040 General Plan Natural and Cultural Resources element: Sensitive Receptors within 500 feet of U.S. Highway 101. Require modeling of toxic air contaminants prior to approval of new residential development within 500 feet of U.S. Highway 101	Less than Significant
	Significant	AQ-4. Add the following new policy to the Gilroy 2040 General Plan Natural and Cultural Resources element: Sensitive Receptors within 500 feet of Existing Point Sources or Existing Heavy Industrial Designated Areas. Require modeling of toxic air contaminants prior to approval of new residential development within the Downtown Specific Plan within 500 feet of existing point sources with screening factors in excess of thresholds, or within 500 feet of areas designated Heavy Industrial.	Less than Significant
	Significant	AQ-5. Add the following new policy to the Gilroy 2040 General Plan Natural and Cultural Resources element: New Industrial Uses within 500 feet of Sensitive Receptors. Require modeling of toxic air contaminants prior to approval of new industrial development within 500 feet of residential uses, Neighborhood District designations, or the Downtown Specific Plan.	Less than Significant

New Significant Impact	Significance Level without Mitigation	Mitigation Measure(s)	Significance Level after Mitigation
Biological Resources			
Adverse Effect on Special-Status Plant and Wildlife Species and Protected Nesting Birds	Significant	BIO-1. Modify the proposed language for Gilroy 2040 General Plan Policy NCR 1.7 (Rare, Threatened, and Endangered Species) as follows: NCR 1.7 ~~Rare, Threatened, and Endangered~~ Special-Status Species. Special-status species are those listed as Endangered, Threatened, or Rare, or as Candidates for listing by the U.S. Fish and Wildlife Service (USFWS) and/or California Department of Fish and Wildlife (CDFW), or as Rare Plant Rank 1B or 2B species by the California Native Plant Society (CNPS). This designation also includes CDFW Species of Special Concern and Fully Protected Species. For special-status species that are not among the 18 covered species in the Habitat Plan, minimize future development in areas that support ~~State or Federally listed rare, threatened, or endangered~~ such species. Conduct focused surveys per applicable regulatory agency protocols as appropriate to determine if such species occur on a given project site, as determined necessary by a qualified biologist. If development of occupied habitat must occur, species impacts shall be avoided or minimized, and if required by a regulatory agency or the CEQA process, loss of wildlife habitat or individual plants should be fully compensated on the site. If off-site mitigation is necessary, it should occur within the Gilroy Planning Area whenever possible, with a priority given to existing habitat mitigation banks. Habitat mitigation shall be accompanied by a long-term management plan and monitoring program prepared by a qualified biologist, and include provisions for protection of mitigation lands in perpetuity through the establishment of easements and adequate funding for maintenance and monitoring. [Existing GP, 20.04, modified]	Less than Significant
Adverse Effect on Jurisdictional Wetlands and Waterways	Significant	BIO-2. Add the following new policy to the Gilroy 2040 General Plan Natural and Cultural Resources element: Assess Potential Wetland Impacts. Applicants of projects on sites where potential jurisdictional wetlands or waterways are present shall retain a qualified biologist/wetland regulatory specialist to conduct a site investigation and assess whether wetland or waterway features are jurisdictional with regard to the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), Santa Clara Valley Habitat Plan, and/or California Department of Fish and Wildlife (CDFW). This investigation will include assessing potential impacts to wetland and riparian habitats, and determining whether any stream buffers/riparian setbacks are required by the Santa Clara ValleyHabitat Plan. If a feature is found to be jurisdictional or potentially jurisdictional, the applicant shall comply with the appropriate permitting process with each agency claiming jurisdiction prior to disturbance of the feature, and a qualified biologist/wetland regulatory specialist shall conduct a detailed wetland delineation if necessary.	Less than Significant

New Significant Impact	Significance Level without Mitigation	Mitigation Measure(s)	Significance Level after Mitigation
Cultural Resources			
Adverse Change in the Significance of a Historic Resource	Significant	CR 1. To reduce the likelihood of impacts to significant historic structures and historic archaeological resources, as well as unique and tribal archaeological resources resulting from publication of the locations of these culturally significant resources, the following modifications shall be made to Gilroy 2040 General Plan Goal NCR 5, Policy NCR 5.2, Policy NCR 5.5, and Implementation Program 7: Goal NCR 5 ~~Encourage the preservation of~~ Preserve historic and culturally significant buildings, sites, and resources to enrich the sense of place and appreciation of the city's history. Policy NCR 5.5 ~~Cultural~~ Historic Resources Inventory. Maintain and periodically update the city's inventory of historically and culturally significant buildings to meet current State and Federal historic preservation guidelines. NCR 5.10 Historic Building Demolition. Prior to approving the demolition of historically significant buildings, evaluate alternatives including structural preservation, relocation or other mitigation in an Environmental Impact Report (EIR), and demonstrate that financing has been secured for replacement use. Implementation Program 7, ~~Cultural~~ Historic Resources Inventory. Maintain and update every five years, the historic resource inventory to evaluate, register, and protect Gilroy's historic resources. The inventory should be publicly accessible and regularly updated.	Less than Significant
Adverse Change in the Significance of a Unique Archaeological Resource	Significant	CR 2. To reduce the likelihood of significant impacts to unique archaeological resources resulting from disturbance and/or publication of the locations of these culturally significant resources, the following modifications shall be made to Gilroy 2040 General Plan Goal NCR 5, Policy NCR 5.2, Policy NCR 5.5, and Implementation Program 7: Goal NCR 5 ~~Encourage the preservation of~~ Preserve historic and culturally significant buildings, sites, and resources to enrich the sense of place and appreciation of the city's history. Policy NCR 5.2 Historic and Prehistoric Archaeological Resources and CEQA. Discretionary projects subject to the California Environmental Quality Act (CEQA) which ~~will require a records search from the Northwest Information Center to determine if there are any known resources within a project area. If the results of the records search indicate the potential existence of historic or pre-historic archaeological resources on the project site, preparation of an archaeological survey will be required.~~ include disturbance of the existing ground surface of the project site will require an archaeological survey and records search if the project site is located in a moderate to high archaeological sensitivity zone as identified on Figure 3.5-1 of the General Plan EIR, or if other evidence suggests the project site to be archaeologically sensitive.	Less than Significant

New Significant Impact	Significance Level without Mitigation	Mitigation Measure(s)	Significance Level after Mitigation
		Policy NCR 5.5 ~~Cultural~~ Historic Resources Inventory. Maintain and periodically update the city's inventory of historically and culturally significant buildings to meet current State and Federal historic preservation guidelines. Implementation Program 7, ~~Cultural~~ Historic Resources Inventory. Maintain and update every five years, the historic resource inventory to evaluate, register, and protect Gilroy's historic resources. The inventory should be publicly accessible and regularly updated.	
Disturb Native American Human Remains	Significant	Implementation of both CR-1 and CR-2 identified above.	Less than Significant
Greenhouse Gas Emissions			
Generate a Volume of GHG Emissions in 2040 That May Have a Significant Impact on Climate Change	Significant	GHG-1. To further enhance GHG reductions from community activities and provide CEQA streamlining benefits for analysis of GHG impacts, Gilroy 2040 General Plan Policy NCR 3.14 shall be replaced, as follows: ~~NCR 3.14 Maximum Greenhouse Gas Emission Reductions. Pursue funding through new development as a means to minimize taxpayer funding. Implement the maximum feasible number of greenhouse emission reduction measures in order for the General Plan to achieve the status of a CEQA Qualifying Climate Action Plan, and the accompanying CEQA streamlining benefits. (See CEQA Guidelines, § 15183.5 (b)(1)).~~ NCR 3.14 Prepare a Qualified GHG Reduction Plan. Pursue funding through new development for preparation of a qualified GHG reduction plan. The plan may be prepared by amending the Gilroy 2040 General Plan or by preparing a separate GHG reduction plan. In either case, requirements for a qualified GHG reduction plan as identified in CEQA Guidelines, § 15183.5 (b)(1) must met. Accordingly, definition and implementation of GHG reduction measures in addition to those identified in Gilroy 2040 General Plan policies and programs may be required to show progress towards meeting the reduction targets established in the GHG reduction plan.	Interim Significant and Unavoidable
	Significant	GHG-2. To implement modified policy NCR 3.14 identified in mitigation measure GHG-1, the Gilroy 2040 General Plan shall include an implementation program entitled "Qualified GHG Reduction Plan." The implementation program shall require that that city prepare and adopt a qualified GHG reduction plan within three years of the date the Gilroy 2040 General Plan is adopted.	Interim Significant and Unavoidable
Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing GHG Emissions	Significant	Implementation of both GHG-1 and GHG-2 identified above.	Interim Significant and Unavoidable

New Significant Impact	Significance Level without Mitigation	Mitigation Measure(s)	Significance Level after Mitigation
Transportation and Mobility			
Increase in Vehicle Miles Traveled	Significant	TRANS-1. To reduce vehicle miles traveled, the city shall review and update Gilroy's 1999 Transportation Demand Management program (Municipal Code Chapter 25B) to be consistent with the Gilroy 2040 General Plan and Valley Transportation Authority Congestion Management Plan. A new general plan policy and implementation program shall be added to the Gilroy 2040 General Plan Mobility Implementation Program. Policy Transportation Demand Management. Review and update the Transportation Demand Management program for consistency with Gilroy 2040 General Plan and Valley Transportation Authority Vehicle Miles Traveled reduction strategies. Implementation Programs 1. Average Vehicle Ridership Goals. Update the average vehicle ridership goal for Gilroy for the year 2040 to achieve and measure progress towards a net increase in the use of commute alternatives and a reduction in vehicle trips. 2. Update Municipal Code Chapter 25B. Update this code chapter to: a. Provide guidance to project applicants in identifying possible project-specific Transportation Demand Management measures that can be implemented to reduce Vehicle Miles Traveled and increase bicycle and pedestrian opportunities and vehicle ridership as part of the development review process, b. List Transportation Demand Management services and incentives that can be implemented by employers that reduce trips, and c. Establish a five-year review cycle to measure the efficacy of program objectives and adjust the program as needed.	Significant and Unavoidable

Source: EMC Planning Group

Bay Area Air Quality Management District (February 26, 2020)

The air district requested the EIR include a discussion of how the proposed 2040 General Plan addresses environmental justice, specifically as it relates to air quality and greenhouse gas emissions impacts. The air district also requested that the EIR address the following: potential effects on local and regional air quality; 2040 General Plan consistency with the AB32 Scoping Plan; potential health risks to existing and future sensitive populations within and near the 2040 General Plan area from toxic air contaminants and fine particulate matter as a result of the 2040 General Plan's construction and operation; identify and evaluate all 2040 General Plan-level design features that reduce criteria pollutants, toxic air contaminants, and greenhouse gas emissions to reduce potential impacts; and the 2040 General Plan consistency with the air district's 2017 Clean Air Plan. The EIR addresses these issues in Section 3.3, Air Quality and in Section 3.7, Greenhouse Gas Emissions.

Valley Water (February 28, 2020)

Valley Water requested the EIR address the following issues: storm water runoff and flooding; impacts to riparian corridors; and groundwater quality and recharge. Storm water runoff and flooding issues are addressed in Section 3.9, Storm Water and Flooding. Impacts to riparian corridors are addressed in Section 3.4, Biological Resources. Groundwater quality and recharge are addressed in Section 3.10, Groundwater.

Local Agency Formation Commission of Santa Clara County (LAFCO) (February 28, 2020)

The commission requested the EIR address the following: clarify if LAFCO is a responsible agency for future approvals pursuant to the 2040 General Plan EIR; identify all responsible agencies; indicate whether the City of Gilroy anticipates tiering from the EIR for potential projects that require LAFCO approval; and evaluate an alternative that limits development to the existing urban service area.

LAFCO is a responsible agency for urban service area amendment requests in Gilroy. Therefore, urban service area amendment requests, once approved by the City Council, would be forwarded to LAFCO for consideration. Responsible agencies are addressed in Section 2.5, EIR Uses and Approvals. As allowed and encouraged by CEQA Guidelines section 15152, Tiering, the City of Gilroy has the authority to tier environmental analysis for later projects. Tiering allows a later EIR or negative declaration to concentrate solely on the issues specific to the later project, and provide some measure of streamlining the environmental document on the later project.

Finally, Section 4.5, Alternatives, evaluates a Reduced Urban Growth Boundary, where the Urban Growth Boundary would be contiguous to the existing city limits. The city limits and the city's urban service area are nearly contiguous, with some minor exceptions where the urban service area expands beyond the city limits. A map of Gilroy's city limits and urban service area can be viewed on LAFCO's website at https://sccplanning.maps.arcgis.com/apps/webappviewer/index.html?id=7d5a189b138e4aa3bea6dc0514f0b85b.

ES.5 ISSUES TO BE RESOLVED AND CHOICE AMONG ALTERNATIVES

CEQA Guidelines Section 15123 requires an EIR to discuss issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects. The City of Gilroy is not aware of any issues to be resolved; however, the City Council will be required to consider each of the alternatives evaluated in this EIR, and make a decision whether to approved the proposed 2040 General Plan, or one of the alternatives. See Section 4.5, Alternatives, for the complete alternatives analysis. The alternatives, and a comparison of the alternatives, is summarized below.

Alternative 1 is the existing General Plan, and would result in generally the same adverse environmental impacts as the proposed 2040 General Plan and partially meets the project objectives. However, the proposed 2040 General Plan includes many new and modified policies that assist with mitigating adverse environmental effects. Therefore, the proposed 2040 General Plan is environmentally superior to Alternative 1, the existing 2040 General Plan.

Alternative 2 is the Reduced Urban Growth Boundary Alternative, which limits development to the existing city limits. This alternative would also result in generally the same type of adverse environmental impacts as the proposed 2040 General Plan, and partially meets the project objectives. However, because this alternative reduces the amount of developable land by 1,177 acres, environmental impacts would not occur on that acreage. Therefore, the Reduced Urban Growth Boundary alternative is environmentally superior to the proposed General Plan, and would partially meet the proposed General Plan objectives.

Alternative 3 is a Reduced Residential Densities Alternative. Two scenarios were evaluated: a reduction of residential units by 10 percent, and a reduction of residential units by 20 percent. This alternative would result in generally the same adverse environmental impacts as the proposed 2040 General Plan and partially meets the project objectives. However, because this alternative would reduce the number of residential units by 10 percent or 20 percent, it would result in fewer environmental impacts. Therefore, Alternative 3, the Reduced Residential Densities alternative, is environmentally superior to the proposed 2040 General Plan, and would partially meet the proposed General Plan objectives.

Conclusion

Alternative 2, Reduced Urban Growth Boundary, reduces the amount of developable land by 1,177 acres. As a result, environmental impacts would not occur on that acreage. Therefore, the Reduced Urban Growth Boundary Alternative is the environmentally superior alternative. As described above and detailed in Section 4.5, Alternatives, each of the three alternatives have generally the same adverse environmental impacts as the proposed 2040 General Plan, but do not fully achieve the project objectives of the proposed 2040 General Plan.

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1.0 INTRODUCTION

1.1 ORGANIZATION OF THE REPORT

This environmental impact report (hereinafter "EIR") is organized into the following sections:

S.0 Summary

The summary, presented earlier, provides a brief overview of the draft Gilroy 2040 General Plan (referred to hereinafter as "Gilroy 2040 General Plan" or "proposed project"), significant environmental effects, proposed mitigation measures, alternatives, areas of controversy known to the lead agency, and issues to be resolved including the choice among alternatives and whether or how to mitigate significant effects.

1.0 Introduction

The introduction presents the organization of this draft EIR, purpose of preparing the report, standards used in the environmental analysis, the California Environmental Quality Act (hereinafter "CEQA") process, and terminology used.

2.0 Project Description

The project description presents the location of the Gilroy 2040 General Plan Planning Area/Sphere-of-Influence and Urban Growth Boundary, a statement of objectives, a general description of the project's characteristics, and a description of the intended uses of the EIR.

3.0 Environmental Effects

The environmental effects section presents the local and regional setting as applicable to each environmental topic area addressed, regulations and policies applicable to each section, thresholds for determining the significance of environmental impacts, analysis of the environmental effects of the proposed project, and mitigation measures to avoid or reduce environmental effects that are found to be significant. Topics addressed in detail in

this EIR are aesthetics; agricultural resources; air quality; biological resources, cultural resources, geological hazards, greenhouse gas emissions; hazardous materials and wildland fire hazards; flooding and water quality; mineral resources, noise; police protection facilities, fire protection facilities, school facilities, park and recreation facilities, transportation and mobility, water service, wastewater service, and solid waste facilities.

4.0 Other CEQA Considerations

This section presents the cumulative project scenario and evaluates whether the proposed project's contribution to cumulative impacts is considerable. This section also presents a discussion of significant and unavoidable impacts, significant irreversible environmental changes, growth inducing impacts, and alternatives.

5.0 Documentation

This final section provides the sources referenced in the EIR, a list of persons contacted, and a list of report preparers.

1.2 PURPOSE AND STANDARDS

Authorization and Purpose

EIRs are authorized by Public Resources Code section 21000 et seq., which establishes CEQA. CEQA was passed by the California legislature in 1970 to establish protocols for environmental review of proposed projects, and has been amended numerous times since. The Office of Planning and Research developed the CEQA Guidelines to assist in implementing CEQA. The City of Gilroy is the lead agency for this EIR.

Preparation Standards and Methods

An EIR is an informational document that will inform public agency decision makers, as well as the general public, of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.

This EIR has been prepared by EMC Planning Group (hereinafter "consultant") in accordance with CEQA and its implementing guidelines, and with the City of Gilroy's CEQA Thresholds of Significance, in effect at the time the EIR was released for public review. This EIR has been prepared using available information from private and public sources noted herein, as well as information generated by the consultant through field investigation. This EIR will be used to inform public decision makers and their constituents of the environmental impacts of the proposed project.

This EIR describes and evaluates the existing environmental setting of the Gilroy 2040 General Plan Urban Growth Boundary and surrounding areas, discusses the various elements of the Gilroy 2040 General Plan, identifies environmental impacts associated with

build-out of the Gilroy 2040 General Plan, identifies Gilroy 2040 General Plan policies and implementation measures that would mitigate the impacts, and provides feasible mitigation measures in the form of additional policies and implementation measures that can be included in the Gilroy 2040 General Plan to reduce or avoid identified adverse environmental impacts. This EIR also evaluates alternatives to the proposed land use diagram (also referred to as the "preferred alternative") in the Gilroy 2040 General Plan.

If an EIR identifies a significant adverse impact, the lead agency may approve the project only if it finds that mitigation measures have been required to reduce the impact's significance, or that such mitigation is infeasible for specified social, economic, and/or other reasons (Public Resources Code section 21081). The lead agency may not omit from the project conditions a mitigation measure associated with a project impact identified in the EIR as significant, unless it makes specific findings regarding the omission.

This EIR is an objective public disclosure document that takes no position on the merits of the proposed project. Therefore, the findings of this EIR do not advocate a position "for" or "against" the proposed project. Instead, this EIR provides information on which decisions about the proposed project can be based. The EIR has been prepared according to the professional standards and practices of the EIR participants' individual disciplines and in conformance with the legal requirements and informational expectations of CEQA and its implementing guidelines.

Degree of Specificity

CEQA Guidelines section 15146 states "The degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR. An EIR on a construction project will necessarily be more detailed in the specific effects of the project than will be an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy. An EIR on a project such as the adoption or amendment of a comprehensive zoning ordinance or a local general plan should focus on the secondary effects that can be expected to follow from the adoption or amendment, but the EIR need not be as detailed as an EIR on the specific construction projects that might follow." Therefore, this draft EIR evaluates the secondary impacts associated with adoption and implementation of the Gilroy 2040 General Plan.

1.3 URBAN GROWTH BOUNDARY

In 2016, the people of the City of Gilroy approved an Urban Growth Boundary (UGB) by initiative to protect the unique character of the city and the agriculture and open space character of the surrounding areas. The UGB is a line beyond which urban development is not allowed. Except for public parks, public educational facilities (such as public schools and public colleges), and public wastewater, sewer, storm drain, and water recycling facilities, only uses consistent with: (1) the General Plan "Open Space" land use designation

as this designation existed on February 26, 2016; and (2) the uses of "open space land" as set forth in Government Code section 65560, subsections (b), (b)(1), (b)(2), (b)(3), and (b)(4) are allowed outside the UGB.

The UGB reflects a commitment to direct future growth within the city's existing urban area in order to prevent urban sprawl into the agriculturally and environmentally important areas surrounding Gilroy. The UGB protects the health, safety, welfare, and quality of life of the residents of Gilroy by concentrating future residential, commercial, and industrial growth in areas already served by urban services. The policies implementing the UGB allow sufficient flexibility within its limits to respond to the city's changing needs over time. The UGB complements existing General Plan Policy 2.13 encouraging infill development and supporting a thriving downtown center.

1.4 CEQA PROCESS

Notice of Preparation

CEQA Guidelines section 15082 requires the lead agency to prepare a notice of preparation (NOP) to solicit agencies' input on the scope of the EIR. CEQA Guidelines section 15375 describes a NOP as:

> …a brief notice sent by the lead agency to notify the responsible agencies, trustee agencies, and involved federal agencies that the lead agency plans to prepare an EIR for the project. The purpose of the notice is to solicit guidance from those agencies as to the scope and content of the environmental information to be included in the EIR.

The lead agency has determined that the proposed project may result in significant adverse environmental effects, as defined by CEQA Guidelines section 15064. Therefore, the lead agency has had this EIR prepared to evaluate the significant adverse environmental impacts of the proposed project.

Based upon the decision to prepare an EIR, the lead agency prepared and distributed a NOP for a 30-day comment period from August 6, 2015 to September 4, 2015 in accordance with CEQA Guidelines section 15082.

A scoping meeting was held at Gilroy City Hall on September 1, 2015. The following members of the public attended:

- Carolyn Tognetti, Save Open Space – Gilroy
- Connie Rogers, Save Open Space – Gilroy
- Walt Glines, General Plan Advisory Committee

Written responses to the NOP were received from the following agencies and organizations:

- California Public Utilities Commission (August 10, 2015)
- Save Open Space -- Gilroy (Carolyn Tognetti – September 1, 2015)
- County of Santa Clara Parks and Recreation Department (August 24, 2015)
- Local Agency Formation Commission of Santa Clara County (August 27, 2015)
- County of Santa Clara Roads and Airports Department (August 28, 2015)
- County of Santa Clara Department of Planning and Development (August 28, 2015)
- Native American Heritage Commission (August 28, 2015).
- Santa Clara Valley Transportation Authority (September 1, 2015)
- California Department of Transportation, District 4 (September 3, 2015)
- Santa Clara Valley Water District (September 9, 2015)

The approval of the Urban Growth Boundary Initiative in 2016 required an update of the previous draft 2040 General Plan project description and a revised NOP to be published. A revised version of the NOP was prepared and published for a 30-day public comment period beginning January 31, 2020. A scoping meeting was held at Gilroy City Hall on February 18, 2020. No members of the public attended the scoping meeting.

Written responses to the revised NOP were received from the following agencies and organizations:

- Native American Heritage Commission (February 4, 2020)
- California Department of Fish and Wildlife, Bay Delta Region (February 25, 2020)
- Bay Area Air Quality Management District (February 26, 2020)
- Santa Clara Valley Water District (Valley Water) (February 28, 2020)
- Local Agency Formation Commission of Santa Clara County (LAFCO) (February 28, 2020)

The 2015 NOP and responses received are included in Appendix A. The 2020 NOP and responses received are included in Appendix B.

Public Review and Comment

In accordance with CEQA Guidelines section 15105, this draft EIR is available for a 45-day public comment period, during which any person or organization may provide comments on the content of the draft EIR to the lead agency. The dates of the public review period are provided on the Notice of Completion form distributed with this draft EIR. Information on

the public review period can also be found on the Office of Planning and Research website: http://www.ceqanet.ca.gov/QueryForm.asp.

Comments may be submitted by the following means:

In writing: Julie Wyrick, Planning Division Manager
Gilroy Community Development Department
7351 Rosanna Street, Gilroy, CA 95020-6197

By FAX: (408) 846-0429
By email: *Julie.Wyrick@cityofgilroy.org*

This draft EIR is available for public review at the City of Gilroy Community Development Department and on the city's website (www.gilroy2040.com/documents/). Additional information on the Gilroy 2040 General Plan or the review process can be obtained from the City of Gilroy Community Development Department during regular business hours. Please contact the department prior to visiting to determine whether city offices are open or closed due to the COVID-19 pandemic.

Final EIR

At the conclusion of the 45-day public review period, the City of Gilroy will prepare a final EIR, which will include comments received on the draft EIR, responses to comments that raise valid environmental concerns, and any necessary revisions to the draft EIR. The city's proposed responses to comments on the draft EIR will be provided to responsible and trustees agencies at least 10 days in advance of a final determination by the City Council. They will also be available on the city's website.

Public Hearings

The Gilroy Planning Commission will consider the EIR and the proposed project at a public hearing and provide a recommendation to the Gilroy City Council. The City Council will consider the EIR and the draft 2040 General Plan and make final determinations on both. Public comment will be accepted at the Planning Commission and City Council hearings. Hearing dates will be advertised in accordance with the provisions of State meeting laws and the Gilroy Municipal Code.

1.5 TERMINOLOGY

Characterization of Impacts

This EIR uses the following terminology to denote the significance of environmental impacts:

- "No impact" means that no change from existing conditions is expected to occur;
- A "less-than-significant impact" is an adverse impact, but would not cause a substantial adverse change in the physical environment, and no mitigation is required;

- A "significant impact" or "potentially significant impact" would cause, or would potentially cause, a substantial adverse change in the physical environment, and mitigation is required;
- A "less-than-significant impact with implementation of mitigation measures" means that the impact would cause no substantial adverse change in the physical environment if identified mitigation measures are implemented; and
- A "significant and unavoidable impact" would cause a substantial change in the physical environment and cannot be avoided if the project is implemented; mitigation may be recommended, but will not reduce the impact to less-than-significant levels. In some cases, the mitigation measures are outside the jurisdiction or control of the lead agency and therefore the lead agency cannot guarantee implementation.

Abbreviations and Acronyms

AB	Assembly Bill
ABAG	Association of Bay Area Governments
afy	acre-feet per year
BEES	Building Energy Efficiency Standards
BMP	Best Management Practices
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFC	Chlorofluorcarbons
CH4	Methane
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO2	Carbon Dioxide

CO2e	Carbon Dioxide Equivalent
EIR	Environmental Impact Report
EMFAC	Emissions Factor Model
EPA	Environmental Protection Agency
GHG	Greenhouse Gas
gpda	gallons per day per acre
gpm	gallons per minute
HCP	Habitat Conservation Plan
LAFCO	Local Agency Formation Commission
LCC	Land Capability Classification
LCFS	Low Carbon Fuel Standards
LESA	Land Evaluation and Site Assessment
LID	Low Impact Development
LOS	Level of Service
mgd	million gallons per day
MT	Metric Tons
NO2	Nitrogen Dioxide
NOX	Nitrogen Oxides
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
O3	Ozone
PM10	Inhalable Particulates
PM2.5	Fine Particulates
ppb	parts per billion
ppm	parts per million
RPS	Renewable Portfolio Standards
ROG	Reactive Organic Gasses
RWQCB	Regional Water Quality Control Board

SB	Senate Bill
SCVWD	Santa Clara Valley Water District
SCH	State Clearinghouse
SCRWA	South County Regional Wastewater Authority
SO2	Sulfur Dioxide
SOX	Sulfur Oxides
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminants
USA	Urban Service Area
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VOC	Volatile Organic Compounds

General Plan Elements

LU	Land Use
M	Mobility
EP	Economic Prosperity
H	Housing
PFS	Public Facilities and Services
PR	Parks and Recreation
NCR	Natural and Cultural Resources
PH	Potential Hazards
EJ	Environmental Justice

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2.0
PROJECT DESCRIPTION

2.1 GILROY 2040 GENERAL PLAN OVERVIEW

Regional Location

Gilroy is situated in south Santa Clara County at the southern end of the San Francisco Bay Area. The city is part of the San Jose/Silicon Valley sub-region of the Bay Area and is within an hour's drive of San Francisco to the north and the Monterey Bay to the south. Gilroy lies at the junction of two important transportation corridors: U.S. Highway 101 and State Route 152, with direct access to the San Francisco Bay area, the counties of San Benito, Monterey, and Santa Cruz, and to the Central Valley.

The city is located on the broad, gently sloping, fertile Santa Clara Valley, enclosed on the northeast by the Diablo Range, and on the west by the Santa Cruz Mountains. At the southern end, the Santa Clara Valley merges into the Pajaro Valley. Gilroy abuts the eastern foothills of the Santa Cruz Mountain Range and Llagas and Uvas creeks adjoin and flow through Gilroy and southward into the Pajaro River. Figure 2.1-1, Regional Map, presents the regional location, as well as the city limits, county boundary, planning area/sphere of influence, Urban Growth Boundary, and urban service area. Figure 2.1-2, Existing General Plan Land Use Plan, presents Gilroy's existing planning area and land use designations.

Introduction to the General Plan Process

Regulations

Every city and county in California must have a general plan, which is the local government's long-term framework or "constitution" for future growth and development. The general plan represents the community's view of its future and expresses the community's development goals. The general plan contains the goals and policies upon which the City Council and Planning Commission base their decisions. The general plan is made up of a collection of "elements," or chapters, of which eight are mandatory for the City of Gilroy. The mandated elements are land use, circulation, housing, conservation, open space, noise, safety, and environmental justice. Communities can organize their

general plans any way they choose, as long as the required topics are addressed. The draft Gilroy 2040 General Plan includes three optional elements: Economic Prosperity, Public Facilities and Services, and Parks and Recreation (includes the open space element). The mobility element incorporates the circulation element. The Natural and Cultural Resources element addresses conservation and open space, and the Potential Hazards element incorporates the noise and safety elements.

The Gilroy 2040 General Plan will be used by the Gilroy City Council, Planning Commission, and city staff on a daily basis to make decisions with direct or indirect land use implications. It provides a framework for inter-jurisdictional coordination of planning efforts among officials and staff of the city and other government agencies (e.g., Federal, State, and local). Gilroy residents, property owners, and businesses also use the Gilroy 2040 General Plan for city guidance for particular geographic areas or for particular subjects of interest to them.

The Gilroy 2040 General Plan will provide the basis for a variety of city regulatory measures and administrative procedures. California planning law requires consistency between the general plan and its implementing programs, such as zoning and subdivision ordinances, capital improvement programs, specific plans, environmental impact procedures, and building and housing codes.

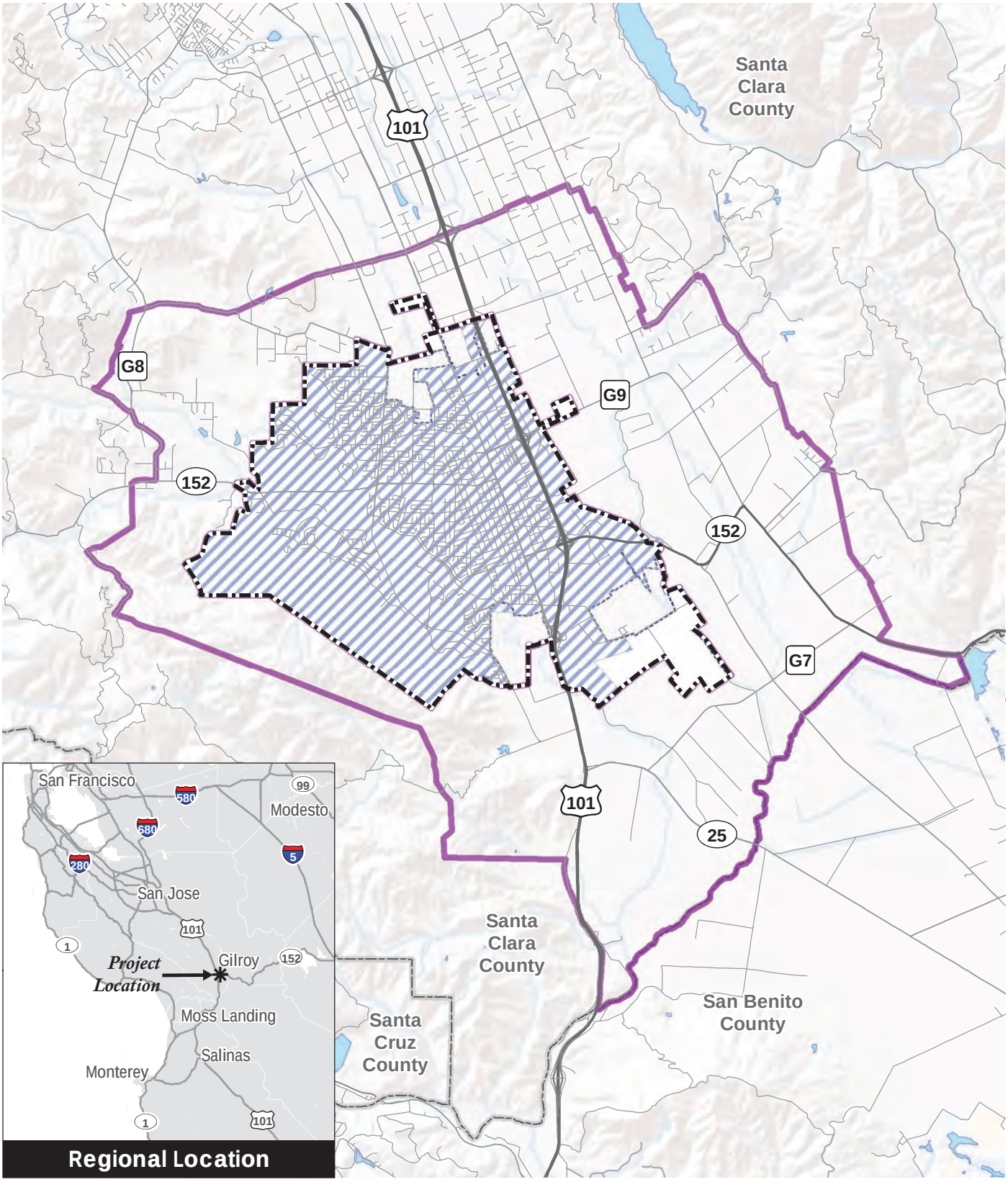
The draft Gilroy 2040 General Plan is made up of two documents: Background Report and Policy Document. The Background Report is further divided into 13 chapters so that information can be easily referenced by subject or issue. The following paragraphs provide a summary of these two component documents:

Background Report

The Background Report takes a "snapshot" of conditions and trends in Gilroy in 2014 when the general plan update process began. It provides a detailed description of a wide range of topics within the Gilroy 2040 General Plan Planning Area, such as demographic and economic conditions, land use, public facilities, and environmental resources. The report provides decision makers, the public, and local agencies with context for making policy decisions. Unlike the Policy Document, the Background Report is objective and policy-neutral. The Background Report also serves generally, as the "Environmental Setting" section of the Environmental Impact Report (EIR) prepared for the Gilroy 2040 General Plan. The Planning Area identified in the Background Report is identified in this EIR as the Gilroy 2040 General Plan Planning Area/Sphere of Influence.

Policy Document

The Policy Document is the essence of the 2040 General Plan. It contains the goals and policies that will guide future decisions within the city. It also identifies a set of implementation programs that will ensure the goals and policies in the General Plan are carried out.



Source: City of Gilroy 2018, Esri 2015

Figure 2.1-1

Regional Map

Gilroy 2040 General Plan EIR

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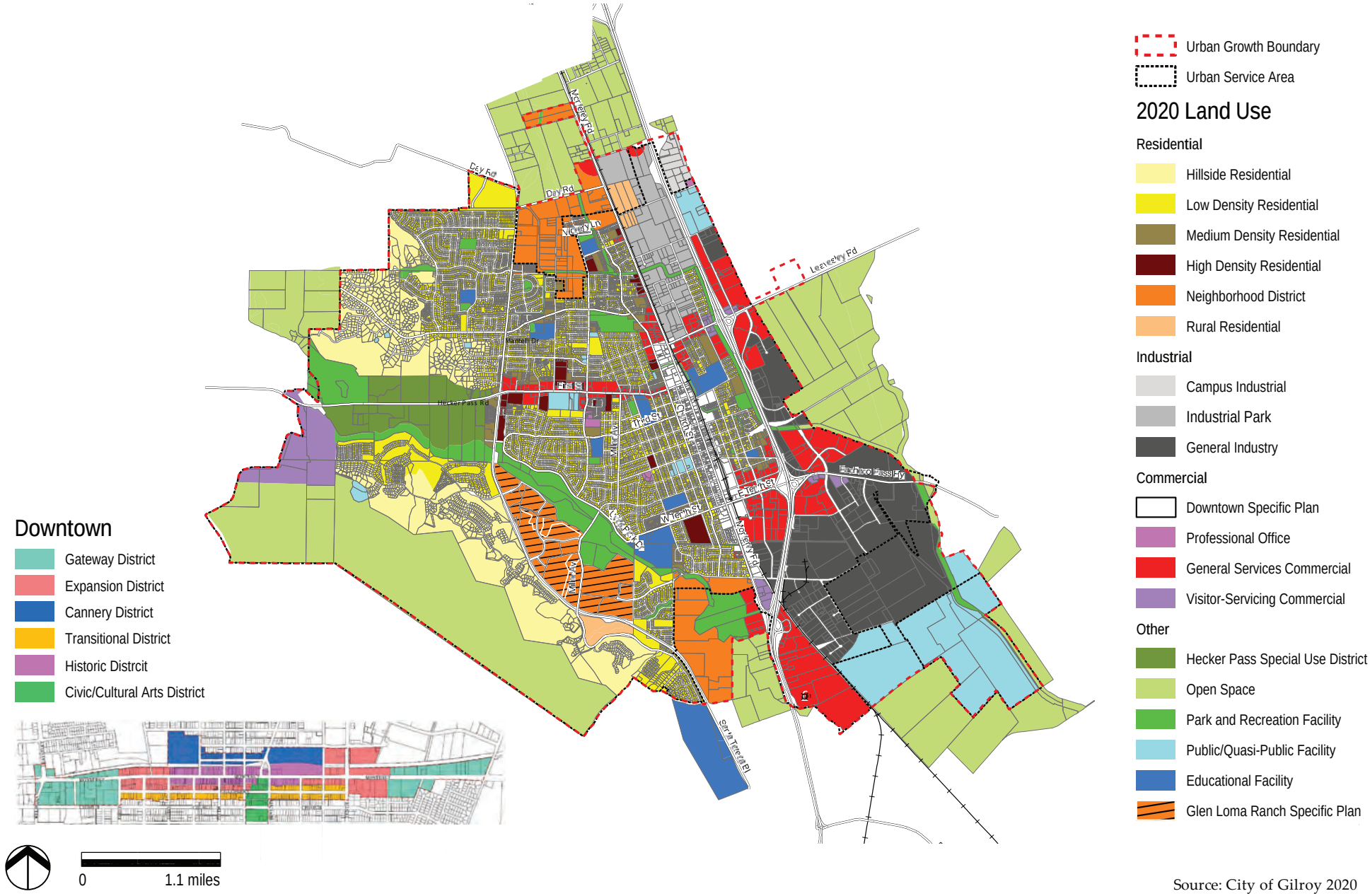

Source: City of Gilroy 2020

Figure 2.1-2

Existing General Plan Land Use Plan

Gilroy 2040 General Plan EIR

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2.2 PROJECT DESCRIPTION

The draft Gilroy 2040 General Plan Policy Document contains nine elements. Each proposed element contains a set of goals, policies, and programs. The proposed draft Gilroy 2040 General Plan goals, policies, and programs are included in Appendix C of this EIR. Each of the proposed elements is introduced below:

Gilroy 2040 General Plan Elements

Land Use Element

The Land Use Element establishes goals, policies, and programs to strategically accommodate future growth and change while preserving and enhancing the qualities that make Gilroy a great place to live and work. The Element contains the Land Use Diagram, a map of land uses within the planning area. It also contains a description of the land use designations. The goals, policies, and programs are designed to enhance Gilroy's neighborhoods and districts with an attractive mix of uses and amenities that expand the local economy, protect environmental resources, and improve the overall quality of life of residents. A variety of topics are discussed within the Element, including growth and change, mixed-use districts, residential neighborhoods, commercial and industrial areas, and community design.

Figure 2.2-1, Gilroy 2040 General Plan Land Use Diagram – Preferred Alternative, presents the City Council preferred general plan land use diagram. Table 2.2-1, Development Potential, summarizes the development potential in the Gilroy 2040 General Plan. The development potential includes up to 6,477 new housing units (single-family and multi-family), an additional population of 19,756, and 21,434 new jobs. This development potential could be reached assuming all under-utilized land is redeveloped and vacant land is developed, all consistent with the land use designations in the Gilroy 2040 General Plan Land Use Diagram –Preferred Alternative. This preferred alternative includes enough vacant and underutilized land planned for the increase in housing, population and jobs summarized in Table 2.2-1. However, this growth should not be regarded as the expected future outcome by the year 2040 as city policies, the economy, and other factors can dramatically change the rate of population growth and also the rate and type of employment growth that can occur.

Mobility Element

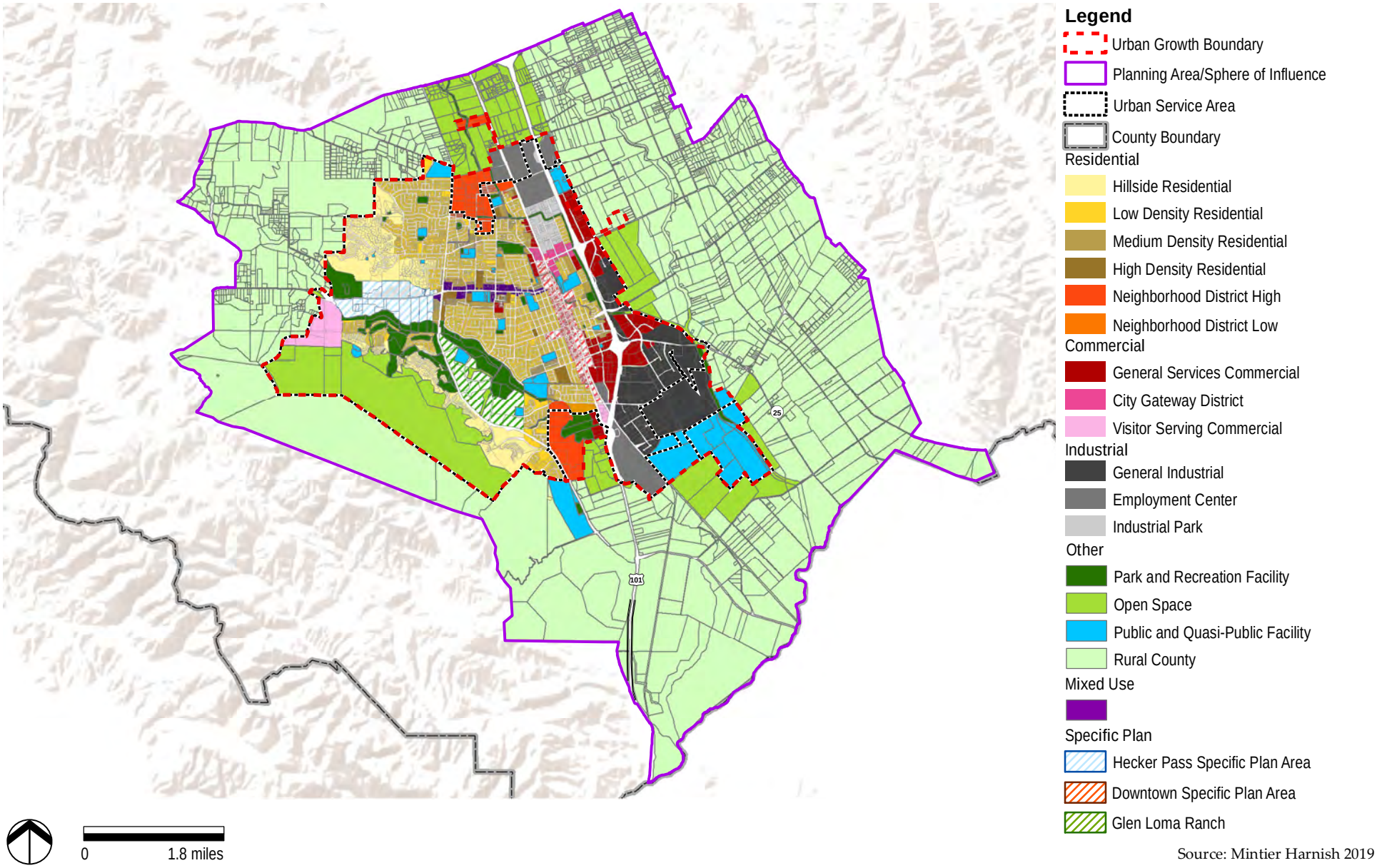
People and goods must be able to move within and through Gilroy to ensure community vitality and quality of life. When transportation networks are safe and efficient, they can contribute to the local economy, minimize impacts to the environment, and provide freedom of movement. When mobility networks are overburdened and inefficient, communities can fail to live up to their full potential, and the economy and overall quality of life can suffer.

Table 2.2-1 Development Potential

Vacant or Under-utilized Land (Acres)	Designation	Single-Family Units	Multi-Family Units	Population	Jobs
197	Hillside Residential[1]	191	-	626	-
37	Low Density Residential[1]	130	-	425	-
15	Medium Density Residential[2]	-	127	352	-
15	High Density Residential[2]	-	259	717	-
22	Downtown Specific Plan[2]	149	1,045	3,308	2,843
90	General Services Commercial	-	-	-	1,544
619	General Industrial	-	-	-	3,821
60	Industrial Park	-	-	-	374
9	Public/Quasi-Public Facility	-	-	-	217
321	Hecker Pass Special Use District[1]	127	-	416	-
292	Glen Loma Ranch Specific Plan[1]	997	-	3,260	254
19	Mixed Use[2]	-	143	397	584
420	Neighborhood District High[3]	1,605	1,704	10,255	366
482	Employment Center	-	-	-	10,190
10	City Gateway District	-	-	-	1,110
6	Visitor Serving Commercial	-	-	-	131
Totals		3,199	3,278	19,756	21,434
Residential Total		6,477			

Source: Mintier Harnish 2020
Notes:
[1] 3.27 persons per household
[2] 2.77 persons per household
[3] 3.1 persons per household

The Mobility Element provides the framework for decisions in Gilroy concerning the citywide transportation system. It seeks to create a balanced transportation network that supports and encourages walking, bicycling, and transit ridership. The goals and policies address a variety of topics, including multimodal transportation, complete streets, pedestrian facilities, bikeways, public transit, vehicular transportation, parking, and goods movement.



Source: Mintier Harnish 2019

Figure 2.2-1

Gilroy 2040 General Plan Land Use Diagram - Preferred Alternative

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Economic Prosperity Element

Gilroy has a rich history as an agricultural community and continues to be the home of major agricultural industries including Olam, Christopher Farms, Syngenta, International Paper, Monterey Foods, and others. Gilroy is located at the cross roads between the Bay Area, the Central Coast and the Central Valley, an important strategic location for many industries. The city's retail base, including the Gilroy Premium Outlets and the Downtown, is extensive and serves as a visitor attraction in its own right. The Economic Prosperity Element contains goals, policies, and programs that aim to improve the balance between jobs and Gilroy's workforce, grow businesses within Gilroy, and attract new businesses and industries.

2015-2023 Housing Element (Adopted December 2014)

The adopted housing element describes existing and projected housing needs and constraints, and the resources available to address these needs. Goals, policies and scheduled programs for the maintenance, improvement and development of housing are identified and analyzed in the housing element. The adopted housing element can be reviewed at https://www.cityofgilroy.org/290/Housing-Element. The adopted housing element will be updated in 2023.

Public Facilities and Services Element

Gilroy residents, workers, and visitors rely on the public facilities and services provided by the city and other agencies and organizations to keep them safe; provide water, energy, communication services; and remove wastewater, stormwater, and solid waste. Gilroy businesses rely on these facilities and services as well. State-of-the art facilities and services (e.g., fiber-optic internet) can help grow Gilroy's economy. The Public Facilities and Services Element establishes goals and policies to guide the overall provision of public facilities and services in Gilroy. Implementing the policies will help to ensure Gilroy's public facilities and services are efficient and adequate for today and tomorrow.

Parks and Recreation Element

The city provides high-quality facilities and services that help residents lead healthier, happier lives. Gilroy residents can walk, bike, hike, play, and learn in Gilroy's many parks or recreation facilities. The Gilroy Recreation Department sponsors extensive programs classes and activities for the youth of the community. Gilroy senior citizens enjoy a wide range of programs at the Gilroy Senior Center. The Parks and Recreation Element builds on this legacy of excellence and plans for the future of Gilroy's park and recreation facility system and recreation and cultural program offerings.

Natural and Cultural Resources Element

With its pristine mountainous backdrop, Gilroy is a relatively compact city surrounded by open space and agricultural land that separate it from adjacent communities. The existing Gilroy community contains some remaining natural areas, but primarily contains developed

properties, agricultural lands, and landscaped ornamental areas such as parks and residential yards. Grassland, oak woodland, and riparian corridors (e.g. Llagas Creek and Uvas Creek) make up much of the natural area found in and near Gilroy. The Natural and Cultural Resources Element establishes goals, policies, and programs to preserve and enhance Gilroy's natural areas, plant and animal species, water, views, and historic and culturally significant resources.

Potential Hazards Element

The city of Gilroy is located in a region that is susceptible to a variety of natural disasters. The city's geologic setting was formed by regional and local earthquake faults, many of which are still active and can pose significant risks to buildings and infrastructure in the event of an earthquake. The city's climate can also create hazardous conditions. Severe winter and spring storms can cause landslides in hillside areas and flooding along stream corridors. Dry weather during spring and summer months can create hazardous conditions related to wildland fires, which when combined with strong winds, pose a significant risk to hillside neighborhoods. Climate change is anticipated to increase the severity of weather conditions in the future, and will likely increase flood, landslide, and wildfire risks together with more extreme temperature events. In addition to natural hazards, Gilroy also has transportation facilities and industrial businesses that create risks for man-made hazards, such as hazardous material spills and exposure to excessive noise.

While it is impossible to completely avoid natural and man-made hazards, the Potential Hazards Element establishes goals and policies to protect life and minimize property damage during future disasters and emergencies. The goals and policies address regional hazards mitigation, seismic and geologic hazards, flood hazards, rising sea levels, wildland wildfires, hazardous materials, airport hazards, and noise.

Environmental Justice Element

Senate Bill 1000 requires both cities and counties that have disadvantaged communities to incorporate environmental justice policies into their general plans, either in a separate environmental justice element or by integrating related goals, policies, and objectives throughout the other elements. The City of Gilroy has chosen to prepare a separate Environmental Justice Element. Environmental justice policies are included throughout the other elements of the general plan, and are summarized in the Environmental Justice Element. The element also includes policies addressing community outreach and inclusion in the public decision-making process, access to health care and healthy foods, managing environmental concerns, and job training and development.

Gilroy Population and Employment Projections

Population totals and projections from the Association of Bay Area Government's (ABAG) and the State Department of Finance, as well as projections data compiled by city staff, were reviewed to determine Gilroy's population and employment projections. Based on this

information and other sources, a set of population, housing, and employment projections were prepared for use in the General Plan process. Like most cities, Gilroy is part of a regional economy and its growth patterns are affected by regional trends.

These projections reflect assumptions about Gilroy's prospects for maintaining or increasing its share of population and employment growth over the next 25 years.

Population Projections

Between 2000 and 2010, Gilroy's population increased by 15 percent and between 2010 and 2019, Gilroy's population continued to accelerate, increasing close to 20 percent over nine years (Department of Finance 2019). As of 2019, the city had an approximate population of 55,928 people (Department of Finance 2019). Population and employment projections can be a useful tool for long-range planning, particularly when evaluating land use alternatives. Projections offer a range of possible growth outcomes. Projections should not be regarded as inevitable; external market forces and city policies can dramatically change the rate and type of growth that occurs. The decisions made as a part of the Gilroy 2040 General Plan process will be a critical determinant of Gilroy's future jobs and housing growth.

Population projections use different rates of growth when projecting population estimates into the future. ABAG produces projections for all cities within the region, including Gilroy. The ABAG projections are based on a combination of factors, including the Bay Area's expected share of the national economy and changing demographic characteristics, together with an analysis of future growth of local jurisdictions based on adopted plans, policies and infrastructure investment. ABAG predicts that Gilroy will have a slow rate of growth (0.44 percent average annual growth rate) with about 70,735 residents in 2040. Under the ABAG projections, Gilroy's population would be 2.7 percent of Santa Clara County's population by 2040 (ABAG 2020).

At the regional level, ABAG also projects a significant shift in housing demand to multi-family housing in urban cores. This is already borne out in San Jose and other north county cities. However, it is expected that Gilroy will continue to be a desirable location for families seeking predominantly new detached single-family housing, even as additional demand for multi-family housing in downtown and other target areas continues to grow consistent with ABAG's projection.

The proposed Gilroy 2040 General Plan Land Use Diagram provides enough vacant and underutilized land to support housing for an additional 19,756 people. The increase in population based on residential land use densities and household size is shown in Table 2.2-2, Population Projections.

Table 2.2-2 Population Projections

Vacant or Under-utilized Land (Acres)	Residential/ Mixed Use Designation	Single-Family Units	Multi-Family Units	Population
197	Hillside Residential[1]	191	-	626
37	Low Density Residential[1]	130	-	425
15	Medium Density Residential[2]	-	127	352
15	High Density Residential[2]	-	259	717
22	Downtown Specific Plan[2]	149	1,045	3,308
321	Hecker Pass Special Use District[1]	127	-	416
292	Glen Loma Ranch Specific Plan[1]	997	-	3,260
19	Mixed Use[2]	-	143	397
420	Neighborhood District High[3]	1,605	1,704	10,255
Totals		3,199	3,278	19,756
	Housing Units Total	6,477		
Existing Population, January 1, 2019 (California Department of Finance)				55,928
Total 2040 Projected Population				75,684

Source: Mintier Harnish 2020
Notes:
[1] 3.27 persons per household
[2] 2.77 persons per household
[3] 3.1 persons per household

Employment Projections

Employment numbers are derived from historic trends, anticipated future trends, and in consideration of the cyclical nature of the economy. Additionally, employment land uses are typically comprised of a variety of business types, each with their own employment densities and building footprints.

The Gilroy 2040 General Plan Land Use Diagram – Preferred Alternative (Figure 2.2-1) includes enough vacant and underutilized land planned for employment uses to support up to 21,434 new jobs under buildout conditions. Similar to population projections, employment projections should not be regarded as the expected future outcome by the year 2040 as city policies, the economy, and other factors can dramatically change the rate and type of employment growth that occurs. The number of jobs anticipated by the Gilroy 2040 General Plan at buildout (which will likely not occur by 2040) are presented in Table 2.2-3, Employment Projections.

Table 2.2-3 Employment Projections

Vacant or Under-utilized Land (Acres)	Designation	Jobs				
		Retail	Service	Office	Manufacturing & Wholesale	Total[1]
22	Downtown Specific Plan	2,843	-	-	-	2,843
37	General Services Commercial	1,269	275	-	-	1,544
619	General Industrial	-	-	382	3,439	3,821
61	Industrial Park	-	-	75	299	374
9	Public/Quasi-Public Facility	-	-	217		217
292	Glen Loma Ranch Specific Plan	127	76	51		254
19	Mixed Use	438	88	58		584
755	Neighborhood District High	183	110	73		366
326	Employment Center	510	510	6,113	3,057	10,190
2	City Gateway District	458	171	481	-	1,110
6	Visitor Serving Commercial	105	26	-	-	131
Totals[1]		5,933	1,256	7,450	6,795	21,434

Source: Mintier Harnish 2020
Note: 1. Totals may vary due to rounding

2.3 CHANGES TO EXISTING 2020 GENERAL PLAN LAND USE DIAGRAM

The Existing 2020 General Plan Land Use Diagram (Figure 2.2-1) and the Gilroy 2040 General Plan Land Use Diagram – Preferred Alternative (Figure 2.2-2) were compared and reviewed for their differences. The Gilroy 2040 General Plan Land Use Diagram includes new designations and changes to existing designations, as described below. Table 2.3-1, General Plan Land Use Designation Changes, identifies the areas of Gilroy where land use changes are proposed. Figure 2.3-1, General Plan Land Use Designation Changes, identifies the location of each of these changes using a numerical identification (clockwise from north to south). There are 15 distinct changes. Each change is described below.

New Land Use Designations

The following land uses are proposed as new designations on the 2040 General Plan Land Use Diagram.

Neighborhood District Low

Neighborhood District Low is applied to one, developed residential neighborhood on Luchessa Avenue immediately north of the Gilroy Sports Park. No other property would have this designation.

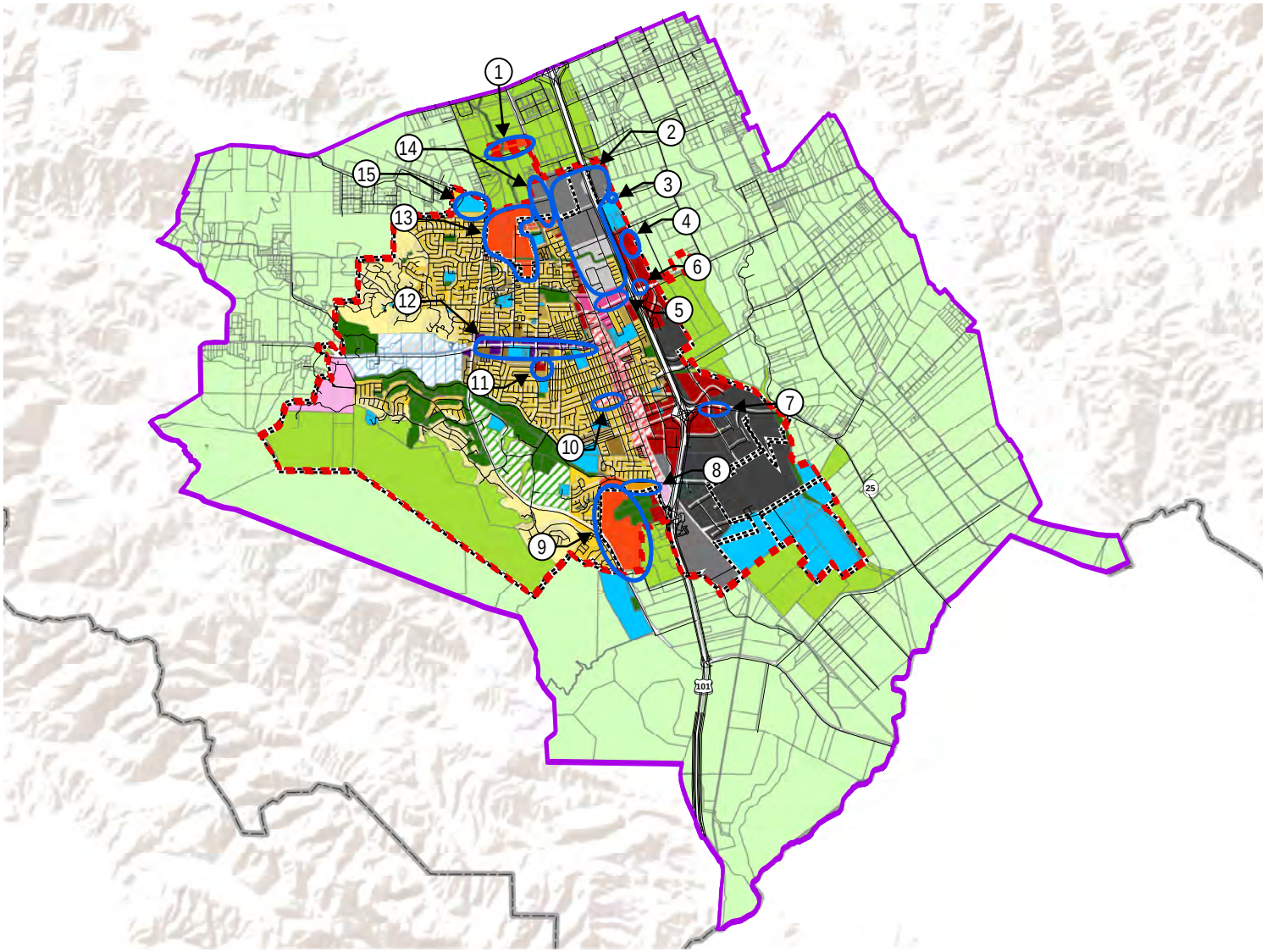
Table 2.3-1 General Plan Land Use Designation Changes

Site Number	Existing Land Use Designation	Proposed Land Use Designation
1	Neighborhood District	Neighborhood District High
2	Industrial Park	Employment Center
3	Professional Office	Employment Center
4	General Industrial	General Services Commercial
5	General Services Commercial & Industrial Park	City Gateway District
6	Visitor Serving Commercial	General Service Commercial
7	Visitor Serving Commercial	General Service Commercial
8	Neighborhood District	Neighborhood District Low
9	Neighborhood District	Neighborhood District High
10	Public/Quasi-Public	Downtown Specific Plan
11	Professional Office	Mixed Use & General Services Commercial
12	General Services Commercial	Mixed Use & General Services Commercial
13	Neighborhood District	Neighborhood District High
14	Neighborhood District	Employment Center
15	Low Density Residential	Public/Quasi-Public

Source: Mintier Harnish 2020
Note: All previously designated "Educational Facilities" parcels are now designated "Public/Quasi-Public" on the 2040 General Plan Land Use Map

Neighborhood District High

The purpose of this designation is to encourage compact, complete, neighborhood-style development. Traditional single-family uses will comprise a substantial portion of this district. Commercial and medium- to high-density residential uses should be clustered to form neighborhood centers. Neighborhood centers would be centrally located to be convenient to as many residents as possible. Residents can access neighborhood centers easily by walking, biking, or driving. Neighborhood-serving amenities such as schools, parks, open space, and neighborhood commercial will be integrated in the neighborhood design in a manner that provides the greatest benefit to the community. Neighborhood District High may use a Neighborhood Commercial (NC) designation to designate land in neighborhood centers to encourage low-intensity commercial uses that cater directly to residents in the immediate neighborhood. Neighborhood District High establishes an average density to be achieved for each category. The 0-7 dwelling units per acre category is intended for single-family detached dwellings with varying lot sizes. The 7-9 dwelling units per acre (average neighborhood density) category is intended for a combination of two-family and some single-family detached dwellings. The 9-16 dwelling units per acre category is intended to accommodate a combination of small-lot and attached single-family dwellings, as well as multi-family dwelling options. The 16-30 dwelling units per acre category is intended to provide a variety of attached single-family and multi-family residential styles of development.



Legend

- Urban Growth Boundary
- Planning Area/Sphere of Influence
- Urban Service Area
- County Boundary

Residential
- Hillside Residential
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Neighborhood District High
- Neighborhood District Low

Commercial
- General Services Commercial
- City Gateway District
- Visitor Serving Commercial

Industrial
- General Industrial
- Employment Center
- Industrial Park

Other
- Park and Recreation Facility
- Open Space
- Public and Quasi-Public Facility
- Rural County

Mixed Use
- Mixed Use

Specific Plan
- Hecker Pass Specific Plan Area
- Downtown Specific Plan Area
- Glen Loma Ranch

0 1.8 miles

(1) Site Numbers Correspond to Table 2.3-1 (General Plan Land Use Designation Changes)

Source: Mintier Harnish 2019

Figure 2.3-1

General Plan Land Use Designation Changes

Gilroy 2040 General Plan EIR

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City Gateway District

The purpose of the City Gateway District is to welcome visitors and residents to Gilroy through street beautification, distinctive architecture, and commercial services. Areas with this designation will be located near high traffic entrances to the city and balance the needs of drivers with the needs of other transportation modes. Parking lots and gas stations should be screened and beautified, enhanced landscaping should be incorporated to frame the view of the visitor, and new development is encouraged to locate close to the sidewalk edge to establish a strong, vibrant street frontage. New parking lots are located to the side or behind buildings. Allowed uses include retail, service, office, and visitor serving uses.

Mixed Use

The purpose of this designation is to encourage a mix of retail, office, and high-density residential uses (20 – 30 dwelling units per acre). Multi-story structures and more intense uses should be located at major intersections and lower-intensity uses adjacent to neighborhoods. Street-level frontage of mixed-use projects shall be developed with pedestrian-oriented, typically commercial, uses.

Residential uses can be integrated on the same site with other uses in either a vertical or horizontal design. Stand-alone residential uses are not allowed. Access to reliable, frequent transit service is a key feature of this designation. The streetscape should have landscaping, lighting, public art, pedestrian amenities, and bicycle access. The residential density of a mixed-use project may be reduced if the overall form and mixed-use nature of the project are maintained.

Employment Center

The Employment Center designation is intended to support businesses and provide a broader range of employment types and intensities. This designation is suitable for office development, light industrial, research and development, medical, and high-tech uses. In addition, large-scale commercial can also locate in this designation if consistent with other commercial and industrial General Plan goals and policies. The only present location of this designation is easterly of U.S. Highway 101, southerly of the U.S. Highway 101/Monterey Street interchange. Due to the high visibility of this area at the southerly "gateway" to Gilroy, light and heavy industrial uses that cannot be properly screened are discouraged. Site design will provide urban-style landscaping, with storage areas and loading bays kept out of sight.

Rural County

Areas outside of the Urban Growth Boundary and within the Gilroy 2040 General Plan Planning Area/Sphere of Influence would be designated as Rural County. The purpose of this designation is to preserve rural residential, hillside, and productive agriculture land uses located outside areas planned for urban development. Much of this area has soils capable of producing a wide variety of crops or supporting grazing. Allowed uses include

rural residential, grazing, active agricultural production, associated agricultural processing, sales, and support uses. Typical building types include low-intensity structures associated with farming and agricultural processing and sales. One single dwelling unit per parcel is allowed in the Rural County designation.

2.4 STATEMENT OF PROJECT OBJECTIVES

Gilroy 2040 General Plan Vision Statement and Guiding Principles

The Gilroy City Council established a vision statement and guiding principles upon which the 2040 General Plan goals, policies, and programs are based.

Vision Statement

> In 2040, Gilroy is a diverse and culturally rich community with a small-town feel. Gilroy's economy is thriving, with a healthy business environment and ample job opportunities for residents. Visitors come to Gilroy for its wineries, shopping, festivals, and recreational opportunities. It is well-known throplughout the region for its excellent schools, agriculture, and downtown.

Guiding Principles

1. **Foster Economic Growth.** Promote a strong local economy by fostering the growth and expansion of a diversified business community. Support businesses that create good jobs for Gilroy's resident workforce. Attract visitors to Gilroy's many destinations.

2. **Cultivate a Downtown Renaissance.** Restore downtown to a vibrant destination with unique retail, entertainment, arts, and dining options. Support and attract businesses. Provide the infrastructure and amenities needed for the growth of downtown. Preserve the historic character while supporting new development, including commercial, housing, and mixed-use projects.

3. **Balance Growth and Open Space.** Focus growth in areas that are already serviced by roads, sewers, and infrastructure. Support a balanced growth management strategy that protects productive agricultural lands and sensitive wildlife habitats while allowing for new economic opportunities. Ensure Gilroy retains its "small-town feel."

4. **Promote Fiscal Strength.** Plan land uses, their intensities, and their locations to provide the right balance of revenues and costs to allow the city to deliver high-quality services expected by the community. Manage fiscal resources in a responsible and efficient manner.

5. **Foster a Sustainable Community.** Balance resource conservation with economic growth. Ensure today's needs are met without jeopardizing the community's

ability to meet future needs. Promote high-quality, long-lasting development that allows residents to meet daily needs, such as shopping, employment, and recreation, in close proximity to their homes. Promote efficient use of energy, support alternative energy use, and protect natural resources.

6. **Ensure Public Safety.** Provide public safety services at a level that will keep the community safe, even as Gilroy grows. Manage growth to ensure that it does not create new threats to public safety, exacerbate existing hazards, or place undue strain on public safety services.

7. **Offer Recreation Opportunities.** Ensure all residents have easy access to high quality city parks and recreation opportunities. Expand park land and recreational programs to ensure high levels of use by both residents and visitors. Provide a variety of sports and activities for Gilroyans of all ages.

8. **Support Housing Options.** Encourage a mix of housing types to create diverse neighborhoods that meet the needs of all Gilroyans. Promote the building, retention, and renovation of quality housing for all incomes, ages, and abilities.

2.5 EIR USES AND APPROVALS

As mandated by CEQA Guidelines Section 15124(d), this section contains a list of agencies that are expected to use the EIR in their decision-making, and a list of the approvals for which the EIR may be used. These lists include information that is known to the lead agency.

EIR Uses

Responsible and trustee agencies may utilize this EIR in the review of subsequent implementation activities over which they may have responsibility. A responsible agency is a public agency which has discretionary review approval power over a project (CEQA Guidelines Section 15381). A trustee agency is a state agency that has jurisdiction by law over natural resources affected by a project which are held in trust for the people of the state (CEQA Guidelines Section 15386). These responsible and trustee agencies may include, but are not limited to, the following:

- County of Santa Clara;
- South County Regional Wastewater Authority;
- Santa Clara Valley Transportation Authority;
- Santa Clara Valley Habitat Agency;
- Local Agency Formation Commission of Santa Clara County;
- Valley Water;

- Central Coast Regional Water Quality Control Board;
- Association of Bay Area Governments;
- Bay Area Air Quality Management District;
- California Department of Fish and Wildlife;
- California Department of Conservation;
- California Department of Housing and Community Development;
- California Department of Transportation (Caltrans);
- U.S. Fish and Wildlife Service; and
- U.S. Army Corps of Engineers.

List of Approvals for Which the EIR May be Used

This draft EIR provides a review of the potential impacts of the city's buildout per the draft Gilroy 2040 General Plan and identifies mitigation measures whose implementation will reduce impacts of such development where feasible, to the degree of specificity required for evaluation of a general plan. As such, this EIR can and will be used by the City of Gilroy to identify environmental review needs for future individual projects which implement the Gilroy 2040 General Plan and are assumed to be part of the series of actions that comprise buildout per the general plan. The City of Gilroy will review these projects for consistency with the Gilroy 2040 General Plan and this EIR and prepare appropriate environmental documentation. Implementing projects for which this EIR may be utilized include, but are not limited to:

- General plan amendments;
- Zoning amendments;
- Specific plans;
- Tentative maps, variances, architectural and site review, and other land use permits;
- Habitat plan permits;
- Approval of utility or infrastructure master plans;
- Approval and funding of public improvement projects;
- Approval of resource management plans;
- Santa Clara County LAFCO consideration of urban service area amendments requested by the City of Gilroy; and
- Permits issued by responsible/resource agencies.

3.0
ENVIRONMENTAL EFFECTS

CEQA Guidelines section 15146 states that the "degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR." The underlying activity, which is the subject of this EIR, is the proposed Gilroy 2040 General Plan. Section 15146(b) further discusses the requirement that environmental review of a general planning approval (e.g., a zoning ordinance update, or general plan) focus on the *secondary effects* (emphasis added) that can be expected to follow that approval. This EIR considers the proposed Gilroy 2040 General Plan in this category, and because there are no primary environmental effects associated with approval of a general plan, the analysis in this EIR studies the secondary effects associated with future development that could occur within the 2040 General Plan boundary, based on the 2040 General Plan buildout assumptions described in Section 2.0, Project Description.

3.1 AESTHETICS

Unless otherwise noted, the information contained within this section is based on the *Gilroy 2040 General Plan Background Report* (Mintier Harnish 2014) and the consulting team's personal observations. The background report is available for review on the city's website at http://www.gilroy2040.com/documents/.

Comments on the NOP submitted by the Santa Clara County Planning Department requested discussion and analysis of land use compatibility with surrounding Santa Clara County general plan land use designations and the South County Joint Area Plan.

Environmental Setting

General Visual Character

The City of Gilroy is located in a broad, fertile valley bordered by the Diablo Mountains to the east and the Santa Cruz Mountains to the west. U.S. Highway 101 bisects the valley in the Gilroy vicinity. Visual character and scenic resources in the city are linked to the region's natural topography. Some of Gilroy's key scenic resources include natural resource and wildlife habitat areas, such as the Uvas Creek and Llagas Creek riparian communities, the

heavily vegetated portions of the Santa Cruz mountains, steep hillsides and significant hillside features such as serpentine barrens, and natural features of high community value including the stands of trees along Miller Avenue and deodar cedar trees lining Hecker Pass Highway. Other scenic resources within and adjacent to the Gilroy 2040 General Plan Planning Area/Sphere of Influence include farmland, surrounding hillsides, areas viewed from Hecker Pass Highway, Uvas Park Drive, and the city's principal gateway areas, which are identified later in this section.

Open Space

Open space areas throughout the Gilroy 2040 General Plan Planning Area/Sphere of Influence preserve regionally important biological resources, which contribute to the scenic quality of the city. Such areas include riparian forests and adjacent habitats along Uvas Creek and Llagas Creek, and the Eagle Ridge hillside open space area located southwest of the Eagle Ridge golf community and Santa Teresa Boulevard.

The primary purpose of lands designated as Open Space is to preserve the natural environment, protect scenic resources, and ensure a buffer between the city and adjoining communities. An open space buffer, or "greenbelt," is a relatively undeveloped area intended to define, both visually and functionally, the boundaries of an urban area. It creates a buffer between one urban area and another and helps ensure that each community retains its individual identity so that urban communities do not meld into one another as is common in many built-up areas.

There are several other open space areas designated in the Gilroy 2040 General Plan Planning Area/Sphere of Influence including the following: an area south of the Gilroy Sports Park and west of Monterey Road, areas to the south east and west of the wastewater treatment plant; an area south of Pacheco Pass Highway and east of the outlets, an area east of Santa Teresa Boulevard and west of Center Avenue outside the Urban Growth Boundary but within the Planning Area/Sphere of Influence habitat preservation areas located within the Glen Loma Ranch Specific Plan area, and agricultural areas within the Hecker Pass Specific Plan area. Additionally, the city's Agricultural Mitigation Policy calls for the preservation of agricultural lands including an agricultural preserve east of U.S. Highway 101 as part of a joint effort with the county (refer to the discussion in Section 3.2, Agriculture). The Open Space land use designation is applied to areas where urban development is either inappropriate or undesirable. Specifically, it is intended to preserve and protect lands that are considered environmentally unsuitable for development, including natural resources areas such as the Uvas Creek and Llagas Creek corridors and the southwestern foothills and hazardous areas such as fault zones floodways.

The new Rural County designation on the Land Use Diagram applies to all land within the Gilroy 2040 General Plan Planning Area/Sphere of Influence boundary. The purpose of this designation is to preserve rural residential, hillside, and productive agricultural land uses located outside areas planned for urban development.

Urban Core

The downtown commercial area was once the core of the city's economic activity. Warehousing and packing facilities were and are common uses within low profile buildings that parallel the Caltrain railroad tracks and Monterey Street. Additional commercial and industrial buildings are located along Monterey Street to the south and east of U.S. Highway 101. Retail and service commercial uses within low profile buildings are prevalent along Monterey Street, with the highest concentration of these uses in the adjacent commercial corridors along Tenth Street and First Street. The Monterey Street commercial core between Tenth Street and First Street contains many historic buildings and retains an historic character. The city also includes a concentrated area of industrial uses in the southeast. Warehousing and other light industrial uses with associated large buildings and open paved circulation, parking, and storage areas are common.

For the most part, residential neighborhoods in the city are comprised of single- and multi-family uses with the older, mature, historic residences/neighborhoods located closer to the downtown and newer neighborhoods radiating outward toward the southwest, west and north from the city's downtown. Residential, commercial, and industrial areas near the downtown core are laid out in a grid pattern that parallels the Caltrain tracks. Newer residential neighborhoods are comprised predominantly of conventional subdivisions. The largest home developments are generally located within the Hecker Pass Specific Plan and Glen Loma Specific Plan areas at the west and southwestern periphery of the city, both of which began construction in 2015.

Scenic Resources

Neither the current Gilroy 2020 General Plan nor the Santa Clara County General Plan designate specific scenic vistas within the city or in the immediate unincorporated areas adjacent to the city. The Gilroy 2020 General Plan identifies Hecker Pass as the "jewel of Gilroy" valued for its rural qualities and scenic views, agricultural lands, open spaces and limited residential and commercial development. Hecker Pass serves as the city's western gateway. The Hecker Pass Specific Plan governs development within this gateway area and much of the planned residential land within the Hecker Pass Specific Plan area has already been developed or is in the development application process. Other scenic resources of aesthetic value are the agricultural lands, riparian areas, and the hillsides that surround much of the Gilroy vicinity. These visual characteristics are highly scenic when viewed from area roadways and the urban fringes of the city.

Although not specifically designated in the Santa Clara County General Plan, other scenic resources outside of the Urban Growth Boundary but within the Gilroy 2040 General Plan Planning Area/Sphere of Influence contribute to the visual character of the city and are, therefore, aesthetically valuable. The Santa Clara County Open Space Authority identifies hillsides visible from the valley floor, wetlands, riparian corridors and other unique habitats, and agricultural areas as valuable open space and scenic resources. Additionally, the South County Joint Area Plan identifies natural streamside and riparian areas as

valuable scenic resources, identifies visually significant and scenic gateways to south county in the vicinity of Gilroy (Pacheco Pass, Hecker Pass, U.S. Highway 101 south of Gilroy), and identifies hillside/mountain areas to the east and the west as south county's major scenic resources.

Light and Glare

A range of sources of daytime and nighttime glare are common in cities, including Gilroy. Daytime sources of glare typically include reflection of the sun off of buildings, car windshields, and other highly reflective glass or metal surfaces. All of these sources of daytime glare occur within the city. Natural sources of light and glare such as lakes or rivers are not present within the Gilroy 2040 General Plan Planning Area/Sphere of Influence.

Nighttime lighting is the primary source of glare that adversely affects nighttime views and creates sky glow. Typical sources of nighttime glare include high intensity lighting at playfields, lighting of commercial and industrial facilities, parking lot lighting, street lighting, and vehicle headlights.

Regulatory Setting

State

California Streets and Highways Code (Section 260). State scenic highways are officially designated in a two-part process, requiring action by both the state and the local jurisdiction. First, the state highway must be placed on the "California Master Plan of State Highways Eligible for Official Scenic Highway Designation" by the state Legislature, an action usually initiated locally. It must then be designated as a state scenic highway by Caltrans, following a Caltrans study to evaluate the geographic extent of the scenic corridor that should be protected and the adequacy of the local jurisdiction's scenic highway protection program. Streets and Highways Code Section 260 preserves and protects scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to highways.

A California highway may be designated as scenic depending on how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes on the traveler's enjoyment of the view. When a city or county nominates an eligible scenic highway for official designation, it must identify and define the scenic corridor of the highway, as defined by the motorist's line of vision. A reasonable boundary is selected when the view extends to a distant horizon. The city or county must also adopt ordinances to preserve the scenic quality of the corridor, including:

- 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.

Caltrans Scenic Highway Criteria. The goal of the California Scenic Highway Program is to preserve and enhance the natural beauty of California. A designated state scenic highway must be statutorily approved as eligible, and should traverse an area of outstanding scenic quality, containing striking views, flora, geology, or other unique natural attributes. County highways are automatically considered eligible, and do not require legislative approval. Caltrans evaluates the merits of a nominated highway on how much of the natural landscape a traveler sees and the extent to which visual intrusions impact the corridor.

Highways should have a memorable landscape that showcases natural scenic beauty or agriculture. Existing visual intrusions should not significantly impact the scenic corridor. Less than one-quarter of the proposed scenic highway should be impacted by visual intrusions. Caltrans describes minor intrusions as those that are somewhat but not entirely compatible with the landscape or are of recognized cultural or historical significance. A moderate intrusion is not well integrated into the landscape but does not dominate the landscape or obstruct scenic views. A major intrusion dominates the landscape, or degrades or obstructs scenic views. The length of the proposed scenic highway should be at least a mile and should be contiguous (California Department of Transportation 2008, pages 2-5).

Regional

Santa Clara County General Plan. The county's general plan land use designations adjacent to the Urban Growth Boundary consist primarily of Rural Residential, Ranchlands, Agriculture Large-scale, Agriculture Medium-scale, Hillsides, and Open Space Reserve.

County-Designated Scenic Routes. U.S. Highway 101 and portions of State Route 152 east and west of Gilroy are identified in the Santa Clara County General Plan as county-designated scenic routes. These routes, as well as Santa Teresa Boulevard, are shown on the Scenic Freeways, Expressways, Arterial, and Rural Routes category on the Santa Clara County Regional Parks and Scenic Highways Map (County of Santa Clara 2008) as follows:

1. U.S. Highway 101, South Valley Freeway, county-wide. This segment of U.S. Highway 101 passes through lands that remain primarily in agricultural and rural residential uses within the county, as well as through the City of Gilroy;
2. State Route 152, Pacheco Pass Highway, east from Ferguson Road. This busy highway is one of the most dramatically scenic gateways into south Santa Clara County;
3. State Route 152, Hecker Pass Highway, from Santa Teresa Boulevard west to Mount Madonna Park and the Santa Cruz County line; and
4. Santa Teresa Boulevard, from U.S. Highway 101 south of Gilroy to Morgan Hill.

Santa Clara County Open Space Authority. The Santa Clara County Open Space Authority is an independent special district that maintains multi-use trails for hikers, bicyclists, and equestrians and is committed to opening new lands to visitors as funding allows. The trails are open every day of the year and are free to the public. They also manage lands to the east of Gilroy in the Diablo Foothills and Palassou Ridge, east of Coyote Lake and the Coyote Lake-Harvey Bear Ranch County Park. Although the City of Gilroy is not a member of the authority, parcels just outside the city limits within the Gilroy 2040 General Plan Planning Area/Sphere of influence are within the jurisdiction of the open space authority. The authority was created in 1992 through state legislation with a mission to "preserve, protect and manage, for the use and enjoyment of all people, a well-balanced system of urban and non-urban areas of outstanding scenic, recreational and agricultural importance." Parcels of land within Gilroy city limits are not in the jurisdiction of the open space authority.

South County Joint Area Plan. The South County Joint Area Plan consists of an effort between the City of Gilroy, the County of Santa Clara, and the City of Morgan Hill to mutually state policies for community development and environmental management. It intends to achieve harmony and cooperation among the three south county jurisdictions. According to the plan, natural streamside and riparian areas should be left in their natural state in order to preserve their value as percolation and recharge areas, natural habitat, scenic resources, recreation corridors, and for bank stabilization. The plan also recommends protection of the visual integrity of the scenic gateways to the south county (Pacheco Pass, Hecker Pass, U.S. Highway 101 south of Gilroy, and the Coyote Greenbelt area north of Morgan Hill), and further recommends that hillside/mountain areas to the east and the west should be limited to low intensity rural uses compatible with open space in order to maintain their integrity as the south county's major scenic and natural resources. Permanent preservation of substantial areas of open space should be considered.

The South County Joint Area Plan also identifies potential "open space preservation tools" for protecting open space in the south county area. These tools include public acquisition, land use regulation, planning and urban development policy, economic incentives to landowners, open space easements, transfer of development rights, planned cluster development, assessment districts, and dedication of additional lands upon development. Although establishment of an open space buffer or greenbelt between Gilroy and Morgan Hill was proposed in the area plan and is supported by the Gilroy 2020 General Plan, a formal designation was never officially established.

City of Gilroy

The city currently utilizes the guidance provided in its zoning ordinance, three adopted specific plans, two City Council policies, and a discretionary design review process, to shape the design of new development. These are described briefly below.

Zoning Ordinance. The zoning ordinance identifies zoning districts within the city limits and standards that preserve the character and integrity of existing neighborhoods. With

respect to visual character and scenic quality, the city's Agriculture, Rural Residential, Residential Hillside, and Open Space zoning districts include provisions for the protection of scenic vistas within the City of Gilroy. The remaining zoning districts, including the Gateway and Neighborhood districts, address visual quality of the city's urban environment.

The Open Space zoning district is intended as follows: to protect and preserve open space land as a limited and valued resource; to permit the reasonable use of open space land; to preserve and protect open space in order to assure its continued availability as agriculture land, scenic land, recreation land, conservation or natural resource land, land for the containment of urban sprawl and the structuring of urban development, or land in its natural or near natural state which protects life and property in the community from the hazards of fire, flood, and seismic activity; to designate land environmentally not suitable for development; and to coordinate with and carry out federal, state, regional, county and city open space plans.

The Agriculture zoning district includes lands that are expected to be urbanized in the future. In the interim, these lands provide areas for agricultural activities. The minimum lot size is intended to preserve lots in sizes suitable for agricultural use and potential urban development.

The Rural Residential zoning district is intended to apply to land that also is expected to be urbanized ultimately in accordance with the General Plan. There is no property presently zoned Rural Residential in Gilroy.

The Residential Hillside zoning district includes the following provisions: to protect the public health, safety, and welfare in regard to hillsides and hillside development; to protect the views and vistas of surrounding hillsides, hilltops, and ridge lines; to protect the natural settings and terrain of Gilroy's hills and valleys; and to coordinate with regional and county plans; and implement all city policies, guidelines, and plans pertaining to hillside development.

The Park/Public Facilities zoning district includes lands that are primarily intended to provide governmental, public utility, educational, and community service or recreational facilities. These uses and facilities can have attributes that contribute to the overall aesthetic quality of the city.

The Neighborhood District is intended to create neighborhoods that are attractive, safe, diverse, and healthy, containing housing that is affordable to a variety of income groups, thereby enhancing the quality of life for all Gilroy residents. In addition, through the Neighborhood District, the city intends to promote a more integrative, comprehensive, and creative approach to neighborhood planning.

The Gateway District intends to create the primary entryway into the downtown area. Uses in this district include residential, office, and commercial services. Parking is screened from traffic and pedestrians. Street beautification with landscape and architectural enhancements is encouraged. Architectural styles are encouraged to reflect the city's extensive and diverse history.

Downtown Gilroy Specific Plan. The Downtown Gilroy Specific Plan was adopted by the City Council in 2005. The purpose of the plan is to create a unique and identifiable downtown for Gilroy that is economically vibrant, pedestrian-oriented, and a local and visitor destination.

Hecker Pass Specific Plan. The Hecker Pass Specific Plan provides the framework for development within approximately 423 acres at the western gateway to the City of Gilroy, commonly referred to as the "Hecker Pass Area." The land use concept for the Hecker Pass Specific Plan is to protect and enhance the Hecker Pass Area's rural character, open space and agricultural uses as well as create a logical coherent pattern of rural style uses as part of the western gateway of Gilroy. The city adopted the Hecker Pass Specific Plan to implement the Gilroy 2020 General Plan Policy 1.07: "Protect and enhance the unique qualities and character of the Hecker Pass area as the city's western gateway and as a highly valued scenic resource for Gilroy residents and visitors." The Specific Plan sets aside 272 acres for open space, agriculture-related and community uses. Residential uses, allowing 521 dwelling units, are located in clustered areas primarily located along Uvas Creek in the southerly portion of the Specific Plan area. The Hecker Pass Specific Plan contains design guidelines and development standards intended to enhance the design of new and redeveloped lands within the plan boundaries.

The Hecker Pass Special Use District designation is intended to establish specific use controls and development guidelines for the Hecker Pass corridor area. It encourages preservation of the natural features and unique qualities of this important community asset, while allowing limited, compatible development. At the end of 2019, much of the planned residential land within the Hecker Pass Specific Plan area had already been developed. Opportunities for Agri-tourist Commercial uses are still available.

Glen Loma Ranch Specific Plan. The Glen Loma Ranch Specific Plan consists of approximately 359 acres, and is surrounded by Uvas Creek to the north, Santa Teresa Boulevard to the west and south, and existing development to the east. The specific plan calls for up to 19 residential neighborhoods with a total of 1,643 dwelling units, a middle school site, an elementary school site, two neighborhood park sites, a new fire station, a town center commercial area, preserved open space, and bicycle and pedestrian trails. The Glen Loma Ranch Special Use District provides a comprehensive planning approach to the Glen Loma Ranch area that identifies development standards and policies for the development of a mix of residential, commercial, and public uses; promoting bicycle and pedestrian travel through an extensive trail system; enhancing the natural features of the

site; integrating open space areas; and providing individual neighborhood parks and city parks. As of May 2020, much of the land within the Glen Loma Ranch Specific Plan area had been developed or was in the development application process.

Municipal Code Chapter 30.38 Landscaping, Water Efficiency, and Storm Water Retention and Treatment. This section establishes minimum landscape standards for all uses for enhancing the appearance of developments, reducing heat and glare, controlling soil erosion, enhancing on-site storm water management, conserving water, establishing a buffer and/or screen between residential and nonresidential land uses, and ensuring the ongoing maintenance of landscaped areas.

Municipal Code Section 30.34 Fences and Obstructions. This ordinance regulates the location, height and materials of fences and other visual or physical obstructions so that they do not adversely affect adjacent properties or obstruct vision along public streets. Fences and hedges in residential, commercial, and industrial districts are permitted up to seven feet in height with some exceptions. Commercial and industrial development abutting any residential zone is required to install a sound wall six feet high, such that it does not extend into the front yard area of any adjacent residential zone. However, in accordance with section 30.34.20 (a), fences or sound walls required to meet sound attenuation standards pursuant to California Administrative Code Title 24 or the CEQA will supersede the standards set forth in this section.

Municipal Code Section 30.50.44(c) Exterior Lighting. Prohibits light splay beyond property lines: "No unobstructed beams of exterior lighting shall be directed outward from the site toward any residential use or public right-of-way."

Municipal Code Section 30.50.40 Architectural and Site Review. This ordinance establishes requirements for Architectural and Site Review. Architectural and Site Review is applicable to commercial and industrial development, hillside residential development, residential development with two or more units on one parcel, and residential development in subdivisions of four or more lots. The Planning Manager has authority to decide Architecture and Site Review applications in most cases. The Architectural and Site Review considers the suitability of designs in terms of safety, aesthetics, and provision of utilities and services.

City of Gilroy Sound Attenuation Policy. The City Council adopted the Sound Attenuation Policy in May 2004 to provide guidance for all development to balance visual preservation and noise concerns. First and foremost, the policy states that sound walls should be avoided, if at all possible. Design techniques and alternative site layout considerations should be used to minimize the need for sound walls. When sound wall attenuation is recommended and/or required, the design should always strive to maintain the natural aesthetics and preservation of view opportunities and incorporate view protections, landscape buffers that maintain the aesthetic qualities and characteristics of the adjacent corridor. Specific site design elements should be incorporated into the project proposal in order to protect and

maintain the overall aesthetics of the view corridor and provide sound attenuation. When sound walls cannot be avoided, building and construction performance criteria shall be applied to the design selection process.

Municipal Code Chapter 30.38.270: Protected Tree Removal. This chapter regulates the removal of protected trees and tree communities on private property. A permit is required by the city to remove a protected tree, greater than 25 percent of the trees within the outermost dripline of a community of protected trees, or a heritage tree. A tree removal permit application must include information to describe and justify the removal request, and a report from an arborist certified by the International Society of Arboriculture or other equivalent organization acceptable to the planning manager. Permit conditions may include planting of specific replacement trees, mitigation of visual impacts, and control of erosion.

Thresholds of Significance

The City of Gilroy CEQA thresholds of significance state that a project may have a significant effect on the environment if it would:

- Have a substantial adverse effect on a scenic vista or degrade the existing visual character in the Hecker Pass Specific Plan Area or the hillside areas;
- Substantially damage scenic resources viewed from Hecker Pass Highway, Santa Teresa Boulevard, and Pacheco Pass Highway;
- Substantially damage scenic resources (farmland and surrounding hills) viewed from Highway 101;
- Result in unattractive entrances (including lack of sufficiently landscaped entrances with landscaped medians, indicating civic pride and a concern for civic beauty) at the principal gateways to the city (north and south Monterey Street, Highway 152/Hecker Pass Highway, Highway 152/Pacheco Pass, north and south Santa Teresa Boulevard, and at the Highway 101 interchanges at Masten, Buena Vista, Leavesley, and Tenth Street);
- Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area; or
- Include or require a wall or fence higher than seven feet measured from the finished grade on the higher side of the fence at the property line, or as allowed by the Gilroy Zoning Ordinance, Section 30.34.

Analysis, Impacts, and Mitigation

IMPACT	Affect Panoramic Views of Scenic Hillsides and Open Space	Less than Significant

The Gilroy 2040 General Plan recognizes a sense of abundant space within Gilroy, due mainly to the wide, tree-lined streets in the older neighborhoods; the riparian corridors of Llagas Creek and Uvas Creek as they flow southward into the Pajaro River; agricultural lands to the north, south and east; and Gilroy's hillside backdrop. The replacement of the natural and open space visual characteristics of these areas with visual characteristics of shapes and forms of a built environment would contribute to the gradual degradation of aesthetically valuable panoramic views.

Scenic resources identified by the city include riparian resources and farmland, and the panoramic views afforded of hillsides and open space along State Route 152 west of Santa Teresa Boulevard. Other panoramic views of aesthetic value consist of a "tapestry" of agricultural lands interwoven by riparian areas, accompanied by the hillside backdrop to the east and west that frame not only the city, but the primary southern gateway to Santa Clara County. These panoramic views are most prevalent from area roadways outside of the Urban Growth Boundary including U.S. Highway 101, and State Route 152 east of the Urban Growth Boundary. Development consistent with Gilroy 2040 General Plan land use designations would convert undeveloped natural and scenic, agricultural and hillside areas within the Urban Growth Boundary, including hillsides, agricultural and vacant land, to urban uses. All modifications to the visual environment associated with implementation of the Gilroy 2040 General Plan would be noticeable from within the community and from major roadways including State Route 152 east and west of the city, U.S. Highway 101, and Santa Teresa Boulevard. Potential impacts to scenic corridors and to the visual character of the Hecker Pass Specific Plan area are discussed later in this section.

Implementation of the 2040 General Plan would increase residential densities within the Neighborhood District High Land Use designations, and replace existing agricultural uses and other vacant lands with development within the Urban Growth Boundary. Rural, hillside, ranchlands, agricultural and other lands in unincorporated Santa Clara County that are outside of the Urban Growth Boundary, but within the Gilroy 2040 General Plan Planning Area/Sphere of Influence will be designated as Rural County.

Development consistent with the Gilroy 2040 General Plan land use designations will consist of structural forms that may be significantly greater in height, mass and scale than the shapes and forms that make up the existing urban landscape. The aesthetic value of public views toward hillside areas and associated open space and natural resource aesthetic values may be gradually degraded or lost within existing developed areas due to infill and new development that may alter or block such views. As such, the urban landscape created by development associated with Gilroy 2040 General Plan buildout conditions would

significantly change the availability of and value of views to the city's scenic hillsides and open spaces. The extension of overhead public utility transmission lines and other utility infrastructure, and other signage would contribute visual clutter that would further impair the value of panoramic views.

Much of the hillsides west of Santa Teresa Boulevard south of State Route 152 would be designated either as Open Space (same as existing) or Hillside Residential by the Gilroy 2040 General Plan. The only change within the hillside areas will be property on Miller Avenue south of Santa Teresa Boulevard, which will change from a Rural Residential land use designation to the Hillside Residential land use designation. Development within the Hillside Residential land use designation would be subject to low- and very low-density residential uses (1 to 4 dwelling units per acre). The industrial lands north and south of the city would continue to be a hub for industrial development, but the continuance of agricultural uses would be encouraged in this area as well. However, development within the city has the potential to result in significant, adverse impacts to the panoramic views of scenic hillsides and open space.

Development proposals would continue to be subject to compliance with applicable zoning district and specific plan design guidelines and standards, the Architectural and Site Review process, the Protected Tree Ordinance, and the city's Sound Attenuation Policy (sound wall design). Compliance with the city's Agricultural Mitigation Policy also requires a 150-foot buffer adjacent to areas with a County agriculture designation, such as those located in unincorporated Santa Clara County adjacent to the Urban Growth Boundary. Compliance with these policies and ordinances will assist to mitigate the change in visual character that could substantially degrade the aesthetic value of panoramic views of the city's scenic resources.

Gilroy 2040 General Plan

The following Gilroy 2040 General Plan goals and policies address impacts that could substantially degrade panoramic views of scenic resources and visual character of the hillsides and other open space areas. Refer to Appendix C, 2040 Gilroy General Plan Goals, Policies, and Programs, for the full policy language.

The Land Use Element contains the following goals and policies that address panoramic views of scenic resources and visual character of the hillsides and other open space areas.

Goal LU 1: Protect and enhance Gilroy's quality of life and unique identity while continuing to grow and change

- LU 1.1 Pattern of Development
- LU 1.2 Residential Growth
- LU 1.3 Phased Commercial Growth

- LU 1.5 Uses East of U.S. 101
- LU 1.7 Access to Open Space
- LU 1.8 Vacant and Underutilized Sites
- LU 1.11 Contiguous Development
- LU 1.12 Interagency Coordination for Growth Management
- LU 1.14 Blight

Policies LU 1.1 and LU 1.3 call for orderly and phased residential, commercial and industrial development to reduce the likelihood of premature conversion of agriculture and other open space areas in recognition of the role of agricultural lands in enhancing Gilroy's semi-rural, small-town character. Policy LU 1.5 includes agricultural land use designations for lands east of U.S. Highway 101. Policy LU 1.7 requires new hillside developments to provide trail access to adjacent greenways, open space corridors, and regional parks where feasible. Policy LU 1.8 provides for monitoring vacant and underutilized residential and non-residential land to encourage infill development on those sites. Policy LU 1.11 strongly discourages development that is not contiguous with existing urban development. Policy LU 1.12 directs Gilroy to work with Santa Clara County and other South Valley communities to ensure a regional approach to growth management. Also work with the County to discourage land subdivision and development activities in areas outside the Urban Service Area but within the sphere-of-influence that might undermine the future urban development potential of those lands. The South County Joint Area Plan, adopted by Santa Clara County, the City of Gilroy, and the City of Morgan Hill serves as a reference of recommended policies and approaches to continue this work. Policy LU 1.14 requires that defunct or abandoned structures that are a visual blight or physical hazard be dismantled or removed within a reasonable period of time. This does not apply to structures that are identified by Gilroy as historic.

Goal LU 2: Ensure the orderly development of large areas of Gilroy through specific plans

- LU 2.1 Specific Plans
- LU 2.2 New or Amended Specific Plans
- LU 2.5 Hecker Pass
- LU 2.6 Glen Loma Ranch

Policies LU 2.1 and LU 2.2 require the preparation of specific plans for development in Neighborhood District High land use designations. Policy LU 2.5 addresses development in the Hecker Pass Specific Plan area while protecting and enhancing the unique qualities and agricultural character of the area as the city's western gateway and as a highly valued scenic

resource for Gilroy residents and visitors. It also encourages the ongoing use of agricultural lands to promote agricultural tourism in the Hecker Pass Specific Plan Area. Policy LU 2.6 requires maintenance and implementation of the Glen Loma Ranch Specific Plan to guide development including provision of appropriate open space.

Goal LU 3: Provide a variety of housing types that offer choices for Gilroy residents and create complete, livable neighborhoods.

- LU 3.9 Hillside Development
- LU 3.10 Hillsides and Ridgelines
- LU 3.11 Noise Mitigation Design

Policies LU 3.9 and LU 3.10 limit disturbances and development on hillsides and ridgelines and encourage development and roadway infrastructure within hillside areas to preserve scenic character. Policies LU 3.11 requires noise attenuation features and sound walls for residential and non-residential uses to be designed with materials that are visually compatible with the scenic attributes of their surroundings.

Goal LU 6: Support agricultural uses in and around Gilroy that have and will continue to influence Gilroy's identity and economy.

- LU 6.1 Economic Viability of Agriculture
- LU 6.3 Agricultural Uses within the Planning Area
- LU 6.4 Agricultural Uses in Hazard Areas
- LU 6.5 Agriculture and Annexation
- LU 6.6 Interagency Cooperation for Agricultural Protection
- LU 6.7 Agricultural Mitigation
- LU 6.9 Greenbelts

Policies LU 6.1 and LU 6.3 - LU 6.7 encourage continued agricultural cultivation on lands within the "Rural County" land use designation and encourage agricultural uses in areas subject to natural hazards, while discouraging premature annexations, and call for continued implementation of an Agricultural Mitigation Program. These policies are directed toward maintaining the viability of agricultural practices but also indirectly affect agriculture's contribution to the overall aesthetic character of the city and its environs, including lands designated as "Rural County" in unincorporated areas outside the Urban Growth Boundary but within the Gilroy 2040 General Plan Planning Area/Sphere of Influence. Policy LU 6.9 calls for the creation of protected open space greenbelts between Gilroy and surrounding communities.

Goal LU 8: Support growth and development that preserves and strengthens the city's historic, small-town character; provides and maintains safe, livable, and affordable neighborhoods; and creates beautiful places.

- LU 8.1 Community Beautification
- LU 8.3 Landscaping along U.S. 101
- LU 8.4 Tree Preservation
- LU 8.6 Utility Undergrounding
- LU 8.7 Signs and Billboards
- LU 8.8 Clustered Development

Policy LU 8.1 recommends acquisition of easements or development rights for open space, planting street trees, and landscaping public rights-of-way. Policy LU 8.3 encourages existing and new development along U.S. Highway 101 to provide landscape screening and protect and enhance views of farmland and the surrounding hills in coordination with Caltrans. Policy LU 8.4 encourages public and private tree preservation, in particular, the heritage trees located on the south side of Hecker Pass Highway (State Route 152) within the Hecker Pass Specific Plan Area. Policy LU 8.6 calls for utility undergrounding in areas of the city undergoing redevelopment or significant construction and in new development. Policy LU 8.7 requires the location of signs and billboards to respect the surrounding context in order to minimize any negative impact on the visual environment and also requires enforcement of sign regulations and design standards to reduce sign clutter and illegal signage along corridors. Policy LU 8.8 calls for clustered development patterns that will minimize impacts to scenic resources.

The Natural and Cultural Resources Element contains the following goals and policies that address panoramic views of scenic resources and visual character of the hillsides and other open space areas.

Goal NCR 1: Preserve and enhance Gilroy's natural resources for current and future residents.

- NCR 1.2 Stream Protection
- NCR 1.3 Riparian Setbacks
- NCR 1.4 Plant and Wildlife Habitats
- NCR 1.5 Open Space Access and Management
- NCR 1.6 Preservation Techniques
- NCR 1.9 Native Tree Protection
- NCR 1.11 Healthy Urban Forest

Policy NCR 1.2 - Policy NCR 1.5 require the preservation and management of plant and wildlife habitats and other open space areas, including streams and riparian corridors. Implementation of these policies also would indirectly protect scenic resources. Policy NCR 1.9 and Policy NCR 1.11 require native tree protection and maintenance of a healthy urban forest, which also contributes to the visual character of the city.

Goal NCR 2: Allow residents to enjoy views of the hills, creeks, and habitats that make Gilroy such a beautiful place to live.

- NCR 2.1 Scenic Routes
- NCR 2.2 Scenic Highways
- NCR 2.3 Other Scenic Roadways

Policies NCR 2.1 – NCR 2.3, assist with preserving panoramic views of Gilroy's scenic assets, as viewed from designated scenic routes.

The following Gilroy 2040 General Plan policies intended to address community goals other than protection of scenic resources, also provide co-benefits of indirectly contributing to protection of the aesthetic value of panoramic views of hillsides and other scenic resources.

- LU 4.3 Noise Mitigation Design
- LU 5.1 Industrial Design Standards
- PFS 1.1 Public Facilities and Development
- PFS 8.2 Coordination with Utility Providers
- PFS 8.5 Undergrounding

Policy LU 4.3 promotes the use of techniques less visually intrusive than sound walls when sound attenuation is necessary. Policy LU 5.1 ensures that new industrial developments contribute to the overall attractiveness of the community through appropriate site design, architectural design, and landscaping. Policy PFS 1.1 b) requires that the city's system of public facilities is developed in a manner that minimizes adverse impacts (including those that could occur to scenic resources) on the environment. Policy PFS 8.2 requires coordination with energy providers to minimize aesthetic impacts of gas and electric facilities. Policy PFS 8.5 calls for utility undergrounding in areas of the city undergoing redevelopment or significant construction and in new development.

In addition to these policies the Gilroy 2040 General Plan Parks and Recreation element includes a Park Preserve facility classification. The primary purpose of the park preserve is to protect unique natural resources while providing for compatible, limited public recreation use. Passive recreational uses (e.g., hiking, nature appreciation, and picnicking) that are not in conflict with resource protection are encouraged. Facilities classified as park preserve contribute to the aesthetic value of open space areas.

Conclusion

Implementation of these Gilroy 2040 General Plan goals, policies and programs, in addition to compliance with existing design review procedures and standard conditions of approval, including Gilroy's Tree Protection Ordinance and Sound Attenuation Policy would reduce potential aesthetic impacts to hillsides and other scenic open spaces to less than significant. No mitigation is required.

IMPACT	Affect the Scenic Character in the Hecker Pass Specific Plan Area	Less than Significant

Development consistent with Gilroy 2040 General Plan land use designations would convert undeveloped natural and scenic, agricultural and hillside areas within the Urban Growth Boundary, including land within the Hecker Pass Specific Plan area, to urban uses. Development within the Hecker Pass Specific Plan area would continue to be subject to compliance with the densities and design guidelines of the Hecker Pass Specific Plan and design/development standards of the Hecker Pass Special Use District. Adoption of the Gilroy 2040 General Plan will not make any changes to the existing development opportunities within the Hecker Pass Specific Plan area, as provided for in the current 2020 General Plan. Development proposals within the Hecker Pass Special Use District would continue to be subject to compliance with applicable zoning district and specific plan design guidelines and standards, municipal code provisions and with the Architectural and Site Review process, the Gilroy Tree Protection Ordinance, and the Gilroy Sound Attenuation Policy.

Gilroy 2040 General Plan

The following Gilroy 2040 General Plan goals and policies address impacts to scenic resources and visual character of the Hecker Pass Specific Plan area. Refer to Appendix C, 2040 Gilroy General Plan Goals, Policies, and Programs, for the full policy language.

Goal LU 2: Ensure the orderly development of large areas of Gilroy through specific plans.

- LU 2.5 Hecker Pass

LU 2.5 requires implementation of the Hecker Pass Specific Plan to guide development in the area while protecting and enhancing the unique qualities and agricultural character of the Hecker Pass area as the city's western gateway and as a highly valued scenic resource for Gilroy residents and visitors.

Goal LU 3: Provide a variety of housing types that offer choices for Gilroy residents and create complete, livable neighborhoods.

- LU 3.11 Noise Mitigation Design

Policies LU 3.11 requires noise attenuation features and sound walls for residential and non-residential uses to be designed with materials that are visually compatible with the scenic attributes of their surroundings.

Goal LU 8: Support growth and development that preserves and strengthens the city's historic, small-town character; provides and maintains safe, livable, and affordable neighborhoods; and creates beautiful places.

- LU 8.4 Tree Preservation
- LU 8.6 Utility Undergrounding
- LU 8.7 Signs and Billboards
- LU 8.8 Clustered Development

Policy LU 8.4 encourages public and private tree preservation, in particular, the heritage trees located on the south side of Hecker Pass Highway (State Route 152) within the Hecker Pass Specific Plan Area. Policy LU 8.6 calls for utility undergrounding in areas of the city undergoing redevelopment or significant construction and in new development. Policy LU 8.7 requires the location of signs and billboards to respect the surrounding context in order to minimize any negative impact on the visual environment and also requires enforcement of sign regulations and design standards to reduce sign clutter and illegal signage along corridors. Policy LU 8.8 calls for clustered development patterns that will minimize impacts to scenic resources.

Goal NCR 1: Preserve and enhance Gilroy's natural resources for current and future residents.

- NCR 1.2 Stream Protection
- NCR 1.3 Riparian Setbacks
- NCR 1.4 Plant and Wildlife Habitats
- NCR 1.5 Open Space Access and Management
- NCR 1.6 Preservation Techniques
- NCR 1.11 Healthy Urban Forest

Policy NCR 1.2 through Policy NCR 1.6 require the preservation and management of plant and wildlife habitats and other open space areas, including streams and riparian corridors. Implementation of these policies also would indirectly protect scenic resources. Additionally, as noted in the previous impact discussion, the park preserve facility classification for passive recreational use areas would also contribute to the aesthetic value of open space areas along the Uvas Creek corridor within the Hecker Pass Specific Plan area. Policy NCR 1.11 require native tree protection and maintenance of a healthy urban forest, which also contributes to the visual character of the city.

Goal NCR 2: Allow residents to enjoy views of the hills, creeks, and habitats that make Gilroy such a beautiful place to live.

- NCR 2.2 Scenic Highways

Policies NCR 2.2 supports the designation of Hecker Pass Highway as an official State Scenic Highway and establish appropriate development controls to ensure long-term protection of its scenic qualities.

Conclusion

Implementation of these Gilroy 2040 General Plan goals and policies, which continue to support Gilroy's design review procedures and standard conditions of approval, including Gilroy's Tree Protection Ordinance and Sound Attenuation Policy, would reduce the impacts to the aesthetic value of views of and within the Hecker Pass Specific Plan area to a less-than-significant level. No mitigation is required.

IMPACT	Affect Scenic Resources Viewed from Hecker Pass Highway, Santa Teresa Boulevard, or U.S. Highway 101	Less than Significant

Development within the Urban Growth Boundary consistent with the Gilroy 2040 General Plan land use designations would place development within the viewshed of roadway corridors that are considered to have scenic qualities by the City of Gilroy. Development that eliminates, impairs, or obstructs public views to scenic resources such as hillsides, landmark trees, and farmlands within identified scenic corridors including U.S. Highway 101, Santa Teresa Boulevard, and Hecker Pass Highway would be a significant impact.

Development consistent with the Gilroy 2040 land use designations would alter the visual character of development areas within the Urban Growth Boundary, which could affect the scenic quality of the vicinity when viewed from roadways with scenic qualities. This is considered a potentially significant, adverse environmental impact.

Gilroy 2040 General Plan

The following Gilroy 2040 General Plan goals and policies address impacts to scenic resources within designated or eligible-to-be-designated scenic travel corridors.

Goal LU 1: Protect and enhance Gilroy's quality of life and unique identity while continuing to grow and change.

- LU 1.1 Pattern of Development
- LU 1.5 Uses East of U.S. 101
- LU 1.7 Access to Open Space

Policies LU 1.1 calls for orderly, contiguous pattern of development that prioritizes infill development, phases new development, encourages compactness and efficiency, preserves surrounding open space and agricultural resources. Policy LU 1.5 includes agricultural land use designations for lands east of U.S. Highway 101. Policy LU 1.7 requires new hillside developments to provide trail access to adjacent greenways, open space corridors, and regional parks where feasible.

Goal LU 2: Ensure the orderly development of large areas of Gilroy through specific plans.

- LU 2.1 Specific Plans
- LU 2.2 New or Amended Specific Plans
- LU 2.5 Hecker Pass
- LU 2.6 Glen Loma Ranch

Policies LU 2.1 and LU 2.2 require the preparation of specific plans for future development in Neighborhood District High land use designations. LU 2.5 requires implementation of the Hecker Pass Specific Plan to guide development in the area while protecting and enhancing the unique qualities and agricultural character of the Hecker Pass area as the city's western gateway and as a highly valued scenic resource for Gilroy residents and visitors. Policy LU 2.6 requires maintenance and implementation of the Glen Loma Ranch Specific Plan to guide development including provision of appropriate open space.

Goal LU 3: Provide a variety of housing types that offer choices for Gilroy residents and create complete, livable neighborhoods.

- LU 3.9 Hillside Development
- LU 3.10 Hillsides and Ridgelines
- LU 3.11 Noise Mitigation Design

Policies LU 3.9 and LU 3.10 limit disturbances and development on hillsides and ridgelines and encourage development and roadway infrastructure within hillside areas to preserve scenic character. Policies LU 3.11 requires noise attenuation features and sound walls for residential and non-residential uses to be designed with materials that are visually compatible with the scenic attributes of their surroundings.

Goal LU 6: Support agricultural uses in and around Gilroy that have and will continue to influence Gilroy's identity and economy.

- LU 6.1 Economic Viability of Agriculture
- LU 6.3 Agricultural Uses within the Planning Area

- LU 6.4 Agricultural Uses in Hazard Areas
- LU 6.5 Agriculture and Annexation
- LU 6.6 Interagency Cooperation for Agricultural Protection
- LU 6.7 Agricultural Mitigation
- LU 6.9 Greenbelts

Policies LU6.1 and LU 6.3 - LU 6.7 encourage continued agricultural cultivation on lands within the "Rural County" land use designation and encourage agricultural uses in areas subject to natural hazards, while discouraging premature annexations, and call for continued implementation of an Agricultural Mitigation Program. These policies are directed toward maintaining the viability of agricultural practices but also indirectly affect agriculture's contribution to the overall aesthetic character of the city and its environs, including lands designated as "Rural County" in unincorporated areas outside the Urban Growth Boundary but within the Gilroy 2040 General Plan Planning Area/Sphere of Influence. Policy LU 6.9 calls for the creation of protected open space greenbelts between Gilroy and surrounding communities.

Goal LU 8: Support growth and development that preserves and strengthens the city's historic, small-town character; provides and maintains safe, livable, and affordable neighborhoods; and creates beautiful places.

- LU 8.1 Community Beautification
- LU 8.3 Landscaping along U.S. 101
- LU 8.4 Tree Preservation
- LU 8.6 Utility Undergrounding
- LU 8.7 Signs and Billboards
- LU 8.8 Clustered Development

Policy LU 8.1 recommends acquisition of easements or development rights for open space, planting street trees, and landscaping public rights-of-way. Policy LU 8.3 encourages existing and new development along U.S. Highway 101 to provide landscape screening and protect and enhance views of farmland and the surrounding hills in coordination with Caltrans. Policy LU 8.4 encourages public and private tree preservation, in particular, the heritage trees located on the south side of Hecker Pass Highway (State Route 152) within the Hecker Pass Specific Plan Area. Policy LU 8.6 calls for utility undergrounding in areas of the city undergoing redevelopment or significant construction and in new development. Policy LU 8.7 requires the location of signs and billboards to respect the surrounding context in

order to minimize any negative impact on the visual environment and also requires enforcement of sign regulations and design standards to reduce sign clutter and illegal signage along corridors. Policy LU 8.8 calls for clustered development patterns that will minimize impacts to scenic resources.

Goal NCR 1: Preserve and enhance Gilroy's natural resources for current and future residents.

- NCR 1.2 Stream Protection
- NCR 1.3 Riparian Setbacks
- NCR 1.4 Plant and Wildlife Habitats
- NCR 1.5 Open Space Access and Management
- NCR 1.9 Native Tree Protection
- NCR 1.11 Healthy Urban Forest

Policy NCR 1.2 - Policy NCR 1.5 require the preservation and management of plant and wildlife habitats and other open space areas, including streams and riparian corridors. Implementation of these policies also would indirectly protect scenic resources. Policy NCR 1.9 and Policy NCR 1.11 require native tree protection and maintenance of a healthy urban forest, which also contributes to the visual character of the city.

Goal NCR 2: Allow residents to enjoy views of the hills, creeks, and habitats that make Gilroy such a beautiful place to live.

- NCR 2.1 Scenic Routes
- NCR 2.2 Scenic Highways

Policies NCR 2.1 and NCR 2.2 serve to preserve Gilroy's scenic assets, as viewed from designated scenic routes. Policy NCR 2.1 requires maintenance of the scenic character of hillsides when designing circulation facilities. Policy NCR 2.2 supports the designation of Hecker Pass Highway as an official State Scenic Highway and calls for the establishment of development controls consistent with the state guidelines for scenic highway corridors.

The following Gilroy 2040 General Plan policies and programs intended to address community goals other than protection of scenic resources, also provide co-benefits of indirectly contributing to protection of views from scenic corridors.

- LU 5.1 Industrial Design Standards
- PFS 8.2 Coordination with Utility Providers
- PFS 8.5 Undergrounding

LU 5.1 ensures that new industrial developments contribute to the overall attractiveness of the community through appropriate site design, architectural design, and landscaping. Policy PFS 8.2 requires coordination with energy providers to minimize aesthetic impacts of gas and electric facilities. PFS 8.5 requires undergrounding utilities in areas of the city undergoing redevelopment or significant construction.

As described in the previous discussion of impacts to hillside, agriculture, riparian, and Hecker Pass area scenic resources, implementation of the goals, policies, and programs of the Gilroy 2040 General Plan in addition to continued compliance with the city's zoning district standards, Architecture and Site Review process, Tree Protection Ordinance, Sound Attenuation Policy, and the buffer requirements of the Agricultural Mitigation Policy, would reduce impacts to the aesthetic value of scenic resources when viewed from scenic corridors.

Conclusion

Implementation of these policies would reduce the potentially significant impacts to scenic resources within these scenic roadway corridors to a less-than-significant level. No mitigation is required.

IMPACT	Visually Affect Community Gateways	Less than Significant

Public and private development consistent with the Gilroy 2040 General Plan land use designations would include development near the principal gateways to the city (north and south Monterey Street, State Route 152/Hecker Pass Highway, State Route 152/Pacheco Pass Highway, north and south Santa Teresa Boulevard, and at the U.S. Highway 101 interchanges at Masten, Buena Vista, Leavesley, and Tenth). Development near city gateway areas that does not include sufficiently landscaped entrances and/or landscaping within public rights-of-way, or that could otherwise lead to visual clutter and unattractive design, could result in significant adverse aesthetic impacts.

Gilroy 2040 General Plan

The Gilroy General Plan includes a new City Gateway land use designation, the purpose of which is to welcome visitors and residents to Gilroy through street beautification, distinctive architecture, and commercial services. Areas with this designation are located near high traffic entrances to the city. Design considerations for the City Gateway designation include recommendations for parking lot and gas station screening and beautification, landscaping and site planning to establish a strong, vibrant street frontage. In addition to the new City Gateway land use designation, the following Gilroy 2040 General Plan goals and policies address potentially unattractive development that would result in significant impacts to the aesthetic value of Gilroy's principal community gateways. Refer to Appendix C, 2040 Gilroy General Plan Goals, Policies, and Programs, for the full policy language.

Goal LU 1: Protect and enhance Gilroy's quality of life and unique identity while continuing to grow and change.

- LU 1.1 Pattern of Development
- LU 1.2 Residential Growth
- LU 1.3 Phased Commercial Growth
- LU 1.14 Blight

Policies LU 1.1 through LU 1.3 call for orderly and phased residential, commercial and industrial development to reduce the likelihood of premature conversion of agriculture and other open space areas in recognition of the role of agricultural lands in enhancing Gilroy's semi-rural, small-town character. Policy LU 1.14 requires the removal of defunct or abandoned structures that are a visual blight or hazard.

Goal LU 2. Ensure the orderly development of large areas of Gilroy through specific plans.

- LU 2.1 Specific Plans
- LU 2.2 New or Amended Specific Plans
- LU 2.5 Hecker Pass
- LU 2.6 Glen Loma Ranch

Policies LU 2.1 and LU 2.2 require the preparation of specific plans for future development in Neighborhood District High land use designations. LU 2.5 requires implementation of the Hecker Pass Specific Plan to guide development in the area while protecting and enhancing the unique qualities and agricultural character of the Hecker Pass area as the city's western gateway and as a highly valued scenic resource for Gilroy residents and visitors. Policy LU 2.6 requires maintenance and implementation of the Glen Loma Ranch Specific Plan to guide development including provision of appropriate open space.

Goal LU 3: Provide a variety of housing types that offer choices for Gilroy residents and create complete, livable neighborhoods.

- LU 3.9 Hillside Development
- LU 3.10 Hillsides and Ridgelines
- LU 3.11 Noise Mitigation Design

Policies LU 3.9 and LU 3.10 and development on hillsides and ridgelines and encourage development and roadway infrastructure within hillside areas to preserve scenic character. Policies LU 3.11 requires noise attenuation features and sound walls for residential and non-

residential uses to be designed with materials that are visually compatible with the scenic attributes of their surroundings.

Goal LU 4: Encourage the growth and development of retail, office, service, and entertainment uses in Gilroy to provide jobs, support city services, and make Gilroy an attractive place to live.

- LU 4.2 High Quality Design
- LU 4.4 Commercial Design Standards and Review Procedures
- LU 4.5 Landscaping in Commercial Areas
- LU 4.6 Existing Strip Commercial Uses

Policies LU 4.2 through LU 4.6 encourage distinctive and high-quality commercial architecture that respects the character of Gilroy and requires the provision and maintenance of landscaping for new and modifications to existing development.

Goal LU 5: Encourage, facilitate, and support the development of new employment and industrial uses and retention of existing industry to ensure compatibility with existing surrounding uses and planned uses.

- LU 5.1 Industrial Design Standards
- LU 5.3 Screening in Industrial Areas

LU 5.1 ensures that new industrial developments contribute to the overall attractiveness of the community. Policy LU 5.3 encourages the use of screening of loading areas and open storage areas in industrial development so that they are not visible from major roads.

Goal LU 6: Support agricultural uses in and around Gilroy that have and will continue to influence Gilroy's identity and economy.

- LU 6.1 Economic Viability of Agriculture
- LU 6.3 Agricultural Uses within the Planning Area
- LU 6.4 Agricultural Uses in Hazard Areas
- LU 6.5 Agriculture and Annexation
- LU 6.6 Interagency Cooperation for Agricultural Protection
- LU 6.7 Agricultural Mitigation
- LU 6.9 Greenbelts

Policies LU6.1 and LU 6.3 through LU 6.7 encourage continued agricultural cultivation on lands within the "Rural County" land use designation and encourage agricultural uses in areas subject to natural hazards, while discouraging premature annexations, and call for continued implementation of an Agricultural Mitigation Program. These policies are directed toward maintaining the viability of agricultural practices but also indirectly affect agriculture's contribution to the overall aesthetic character of the city and its environs, including lands designated as “Rural County” in unincorporated areas outside the Urban Growth Boundary but within the Gilroy 2040 General Plan Planning Area/Sphere of Influence. Policy LU 6.9 recommends the designation of protected open space areas in conjunction with adjacent agricultural lands to create significant natural buffers, or “greenbelts” between Gilroy and surrounding communities. This helps to retain the city’s semi-rural, small town quality through joint planning with the South County cities and the county. This policy specifically addresses separation of the northern part of the Gilroy 2040 General Plan Planning Area/Sphere of Influence from the community of San Martin.

Goal LU 8: Support growth and development that preserves and strengthens the city’s historic, small-town character; provides and maintains safe, livable, and affordable neighborhoods; and creates beautiful places.

- LU 8.1 Community Beautification
- LU 8.2 Community Gateway
- LU 8.3 Landscaping along U.S. 101
- LU 8.4 Tree Preservation
- LU 8.6 Utility Undergrounding
- LU 8.7 Signs and Billboards
- LU 8.8 Clustered Development

Policy LU 8.1 recommends acquisition of easements and/or development rights to ensure the provision of open space, street tree plantings and public rights-of-way landscaping. Policy LU 8.2 requires new developments at “gateways” to the city, including Monterey Road, Pacheco Pass Highway, Hecker Pass Highway, and U.S. Highway 101 interchanges, to incorporate high-quality, site and architectural design, distinctive landscaping, public art and/or other improvements that enhance the visual integrity of such areas. Policy LU 8.3 requires coordination with Caltrans and the county to enhance the landscaping along U.S. Highway 101, and encourages new developments facing U.S. Highway 101 to provide landscape screening and to protect and enhance views of farmland and the surrounding hills. LU 8.4 encourages preserving trees on public and private property. Priority should be given to the preservation of trees considered significant due to their size, history, unusual species or unique quality. In particular this policy shall apply to the heritage cedar trees

located on the south side of Hecker Pass Highway in the Hecker Pass Specific Plan area. Policy LU 8.6 calls for utility undergrounding in areas of the city undergoing redevelopment or significant construction and in new development. Policy LU 8.7 requires the location of signs and billboards to respect the surrounding context in order to minimize any negative impact on the visual environment, and calls for enforcement of sign regulations and design standards to reduce sign clutter and illegal signage along corridors.

Goal NCR 1. Preserve and enhance Gilroy's natural resources for current and future residents.

- NCR 1.4 Plant and Wildlife Habitats
- NCR 1.5 Open Space Access and Management
- NCR 1.9 Native Tree Protection
- NCR 1.11 Healthy Urban Forest

Policy NCR 1.1 and Policy NCR 1.5 require the preservation and management of plant and wildlife habitats and other open space areas, including streams and riparian corridors. Implementation of these policies also would indirectly protect scenic resources. Policy NCR 1.9 and Policy NCR 1.11 require native tree protection and maintenance of a healthy urban forest, which also contributes to the visual character of the city.

Goal NCR 2: Allow residents to enjoy views of the hills, creeks, and habitats that make Gilroy such a beautiful place to live.

- NCR 2.1 Scenic Routes
- NCR 2.2 Scenic Highways
- NCR 2.3 Other Scenic Roadways

Policies NCR 2.1 through NCR 2.3 serve to preserve Gilroy's scenic assets, as viewed from designated scenic routes. Policy NCR 2.1 requires maintenance of the scenic character of hillsides when designing circulation facilities; Policy NCR 2.2 supports the designation of Hecker Pass Highway as an official State Scenic Highway and calls for the establishment of development controls consistent with the state guidelines for scenic highway corridors. Policy NCR 2.3 requires the protection of other important scenic qualities and natural features on other roadways within the Gilroy 2040 General Plan Planning Area/Sphere of Influence including the segment of Miller Avenue between Uvas Park Drive and Mesa Road.

The following Gilroy 2040 General Plan policies and programs intended to address community goals other than protection of scenic resources, also provide co-benefits of indirectly contributing to the aesthetic value of community gateways.

- LU 5.1 Industrial Design Standards
- PFS 8.2 Coordination with Utility Providers
- PFS 8.5 Undergrounding

LU 5.1 ensures that new industrial developments contribute to the overall attractiveness of the community through appropriate site design, architectural design, and landscaping. Policy PFS 8.2 requires coordination with energy providers to minimize aesthetic impacts of gas and electric facilities. PFS 8.5 requires undergrounding utilities in areas of the city undergoing redevelopment or significant construction.

Conclusion

Continued compliance with zoning district requirements, with existing design review procedures and standard conditions of approval as described previously, combined with implementation of these policies would reduce potentially significant impacts resulting from unattractive improvements that could degrade the aesthetic value of these key gateways and interchanges to less than significant. No mitigation is required.

IMPACT	Lighting from New Development May Affect Day or Nighttime Views	Less than Significant

Development consistent with the Gilroy 2040 General Plan land use designations will create new sources of light or glare. This could adversely affect day or nighttime views in the area, which is considered a significant impact. "Light trespass" is light emitted by a lamp or lighting installation that falls outside the boundaries of the property intended for illumination. "Uplighting" is light that is unnecessarily thrown into the night sky. Such excess lighting can affect adjacent residents, passing drivers or pedestrians, the natural environment, and astronomical observations. Sources of light pollution include sports fields, street and parking lot lamps, recreational parks and other gathering places, and other exterior lighting. Sources of glare include reflective surfaces such as glass in building windows and automobile windshields.

Interior and exterior lamps and light fixtures can provide energy efficiency as well as effective lighting. To reduce the combined effects to day or nighttime views resulting from an increase in exterior lighting, preference should be given to newer types of light sources that can provide the most "lumens per watt" as well as a longer lamp life. Lighting controls (such as timers or photo-sensors) can also be used to turn lights off when they are not needed, and to prevent interior sources of light to "leak" out of buildings when not in use during the nighttime hours.

As noted previously, light that extends beyond property lines and into the public right-of-way is prohibited by the Gilroy Municipal Code Section 30.50.44(c). Light sources and fixtures for specific development projects are reviewed during the Architectural and Site

Review process. The Planning Manager is also authorized to review the specifications for development proposals that include lighting and landscaping of off-street parking facilities and street lighting. Compliance with the municipal code and with the Architectural and Site Review process reduce the potentially significant impacts of light and glare effects of new development to a less-than-significant level.

Gilroy 2040 General Plan

The following Gilroy 2040 General Plan goals and policies address increases in lighting and glare that have the potential to substantially impact day or nighttime views. Refer to Appendix C, 2040 Gilroy General Plan Goals, Policies, and Programs, for the full policy language.

Goal NCR 1: Preserve and enhance Gilroy's natural resources for current and future residents

- NCR 1.10 Light Pollution
- NCR 3.1 Energy Use Data and Analysis
- NCR 3.12 Existing Municipal Building Energy Retrofit

Policy NCR 1.10 addresses light pollution by encouraging the use of measures to limit exterior light pollution and requires that outdoor lighting is directed downward. Policy LU 8.12 and PFS 8.10 require efficient exterior lighting fixtures that maximize energy efficiency while providing effective lighting. PFS 8.10 further requires compatibility with the neighborhood context. Policies NCR 3.1 and 3.12 are primarily intended to promote energy conservation in existing public and private buildings; however, the accompanying implementing programs also address the replacement of older lighting technologies in parking lots and public spaces, which would also reduce the intensity of lighting effects in these areas.

Conclusion

Implementation of these policies, in addition to project-specific compliance with Gilroy Municipal Code section 30.50.44(c) and with the city's Architectural and Site Review process, would reduce the potentially significant impact of light pollution associated with buildout of the Gilroy 2040 General Plan to a less-than-significant level. No mitigation is required.

IMPACT	Visual Effects of Walls and/or Fences Over Seven Feet Tall	Less than Significant

Development and infrastructure improvements associated with buildout of the Gilroy 2040 General Plan could require the construction of sound walls to protect sensitive receptors from unwanted sound or noise that exceeds acceptable thresholds. Walls taller than seven feet in height are not allowed in the city unless they are sound walls that are required for

noise attenuation purposes and only after all other noise attenuating design techniques have been implemented and/or explored. The city's vision for streetscapes is reflected in more recent development where sound walls are minimized and wider landscaping buffers are provided. Compliance with the provisions of Municipal Code Chapters 30.34, and 30.38, described previously, in addition to the city's Sound Attenuation Policy supports alternatives to sound walls and adherence to measures that serve to minimize the visual impact of sound walls if they are constructed. Implementation of the city's Sound Attenuation Policy and relevant Municipal Code Chapters would prevent significant visual impacts from sound walls.

Gilroy 2040 General Plan

The following policies of the Gilroy 2040 General Plan would reduce the visual impact of sound walls greater than seven feet in height. Refer to Appendix C, 2040 Gilroy General Plan Goals, Policies, and Programs, for the full policy language.

- LU 3.11 and LU 4.3. Noise Mitigation Design
- PH 6.6. Setbacks and Earth Berms

Policy LU 3.11 and Policy LU 4.3, require the use of visually compatible materials and design techniques for the provision of sound walls for both residential and non-residential development within the Urban Growth Boundary. Additionally, Policy PH 6.6 requires landscaped setbacks and earth berms as alternatives to sound walls when feasible. All three policies require visually compatible designs for sound attenuation.

Conclusion

Implementation of these policies in addition to project-specific compliance with the municipal code, the city's Sound Wall Attenuation Policy, and with the Architectural Site and Review process, would reduce potentially significant impacts resulting from the construction of walls and fences greater in height than seven feet to a less-than-significant level.

3.2 AGRICULTURAL RESOURCES

Unless otherwise noted, the information contained within this section is based upon information included in the *Gilroy 2002/2020 General Plan* and the 2020 general plan EIR, the *Gilroy 2040 General Plan Background Report* (Mintier Harnish 2014), and Gilroy's Agricultural Mitigation Policy. The background report is available for review on the city's website at http://www.gilroy2040.com/documents/. The Agricultural Mitigation Policy is included in Appendix D.

No comments regarding agricultural or forest resource issues were received in response to the NOP.

Environmental Setting

Importance of Agriculture in Santa Clara County

The Santa Clara Valley has historically grown a variety of crops, including vegetables, fruits, nuts, grain, floral, and nursery crops. Agricultural processing industries in the region have included canneries, dehydrators, dryers, packers, breeding, and the seed industry.

Mushrooms, nursery crops, lettuce, peppers, and wine grapes, have been the top economic crops in recent years, accounting for a gross value of $206 million in 2018; total crop value in 2018 was about $296 million (Santa Clara County Department of Agriculture 2019). The number of cultivated acres of farmland has decreased as the region has become increasingly urbanized, but a significant area of agricultural production remains in the southern Santa Clara Valley.

Especially since 1980, urban development has taken land out of agricultural production in the southern Santa Clara Valley. Agricultural production and efficiency decrease because of increased air pollution, and crop diseases increase because of inadequate care of off-farm ornamental plants, and restrictions on pesticide use and burning. Agricultural production costs can increase because of rising land costs, competition for limited water resources, theft and vandalism of farm equipment, crop pilferage, road congestion, and personal injury liability associated with farm trespass. Some farms are able to adapt to an urban setting and/or take advantage of increased market opportunities (United States Department of Agriculture Economic Research Service 2001; California Rural Crime Prevention Task Force 2015).

Gilroy's agricultural roots are apparent in its existing land use. About 75 percent of land within the Gilroy 2040 Planning Area/Sphere of Influence, but outside the Urban Growth Boundary is designated as Agriculture under the Santa Clara County General Plan. Ranchlands and Hillsides are the next largest county land use designations, with 14 percent and 10 percent, respectively. Active agricultural uses make up the largest share (60.7 percent; 20,964.2 acres) of existing land uses within the Gilroy 2040 Planning Area/Sphere of Influence.

Agriculture has historically been the economic base for Gilroy and many of its existing industrial businesses are still actively engaged in agricultural production, food processing and related machinery and services fields. In addition, on a regional level, continuation of local food production capacity is of concern and efforts are underway in Santa Clara County and other nearby areas to preserve agricultural land where feasible.

In 2004, the City of Gilroy adopted an Agricultural Mitigation Policy to preserve and protect agricultural lands within the sphere of influence. The policy, presented in greater detail within the regulatory setting discussion of this section, recognizes agriculture's significant contribution to the local economy, and aims to enable the continued viability of agriculture and agri-tourism in the Gilroy vicinity through protection of agricultural lands from urban

encroachment; preservation of agricultural lands as a natural buffer between Gilroy and surrounding communities; and appreciation for the role of agricultural lands in enhancing Gilroy's semi-rural, small-town character.

Farmland Value Assessment Methods

Farmlands Mapping Program. Under the Farmlands Mapping and Monitoring Program, established pursuant to California Government Code section 65570, the California Department of Conservation publishes a map of important farmlands and a list of soil types that qualify for determination as important farmlands. The 2016 Important Farmlands Map for Santa Clara County provides an inventory of agricultural resources in the county. The map does not necessarily reflect general plan or zoning designations, city limit lines, changing economic or market conditions, or other land use policies, although developed areas are designated as such.

The Farmland Mapping and Monitoring Program defines Prime Farmland as land with the best combination of physical and chemical characteristics able to sustain long-term production of agricultural crops. The land must have been used for production of irrigated crops some time during the four years prior to the mapping date. Farmland of Statewide Importance is land with a good combination of physical and chemical characteristics for agricultural production, having only minor shortcomings, such as less ability to store soil moisture, compared to Prime Farmland. Unique Farmland is farmland of lesser quality soils but used for production of some of the state's leading agricultural crops. This land is usually irrigated, but can include some non-irrigated orchards or vineyards appropriate in certain climatic zones of California.

Land Capability Classification and Storie Index Rating. The United States Department of Agriculture Natural Resource Conservation Service classifies each soil type in a land capability classification, indicating the suitability of soils for most kinds of crops. The primary capability classes are rated from Class I (fewest limitations) to Class VIII (serious limitations). Subclasses are utilized to characterize limitations: "e" for erosion, "w" for water saturation, "s for shallow, clayey, or stony soils, and "c" for climatic limitations. Finally, numerals are used to further explain limitations: "0" for sand and gravel substrates, "1" for erosion potential, "2" for poor drainage or flooding, "3" for slow permeability, "4" for coarse texture, "5" for fine texture, "6" for salt or alkali, "7" for stone or rock, "8" for shallow depth, and "9" for low fertility or toxicity. The land capability classification indicates the soil's suitability for most kinds of farming.

The United States Department of Agriculture Natural Resources Conservation Service uses the Storie index rating system to numerically express (from 0, lowest, to 100, highest) the relative degree of suitability and value of a soil type for general intensive farming purposes. The rating is based on soil profile characteristics; texture of the surface horizon; slope; and other conditions, such as high water table, risk of erosion, and high alkalinity. A rating of 80 to 100 points is given to Grade 1 soils, which have no limitations to farming and also have

a high suitability rating. Grade 2 soils rate 60 to 79 points and are suitable for most crops. Grade 3 soils rate 40-59 points, and are suitable to a limited range of crops. Grade 6 is the lowest grade with 0-9 points.

LESA Methodology. The State Department of Conservation developed the Land Evaluation and Site Assessment (LESA) analysis methodology to assess the agricultural value of agricultural land and pursuant to CEQA, to provide lead agencies with an optional methodology to ensure that potentially significant effects on the environment resulting from agricultural land conversions are quantitatively and consistently considered in the environmental review process (Public Resources Code Section 21095). The CEQA Guidelines Appendix G provides further guidance noting that for CEQA purposes, although not required, a lead agency may refer to LESA as an optional model when determining whether impacts to agricultural resources are significant. The LESA is a point-based approach to analysis that rates a site's relative agricultural value based on the land evaluation (quality of soils) and site evaluation (site size, water availability, surrounding land use, and presence/absence of agricultural protections).

In Gilroy, project-specific impacts of farmland conversion are evaluated using the LESA methodology when a project site is 10 acres or greater of prime farmland or 40 acres or greater of farmland of statewide importance. Projects with a total LESA score between 40 and 59 are classified as significant only if both the land evaluation and site assessments components have a score of at least 20. Total scores between 60 and 79 are classified as significant unless either of the two factors is below 20 points. Total scores of 80 or above are classified as significant. A project's LESA score is also used by the city to determine the extent of required agricultural mitigation consistent with its Agricultural Mitigation Policy (discussed in greater detail under Regulatory Setting discussion of this section).

Farmland Value Within the Planning Area

Figure 3.2-1, Important Farmlands Map, shows the locations of each farmland designation within the Urban Growth Boundary. The 2040 General Plan Urban Growth Boundary consists of approximately 11,763 acres, much of which has historically been for agricultural production.

Farmlands Mapping Program. About 30 percent of the area within the Urban Growth Boundary is classified on the Important Farmlands map as Prime Farmland, Farmland of Statewide Importance, Farmland of Local Importance, Grazing Land or Unique Farmland. Table 3.2-1, Important Farmland Classifications, shows acreage of each classification within the Urban Growth Boundary.

Williamson Act Contracts

Parcels under Williamson Act contracts within the Planning Area/Sphere of Influence are indicated on Figure 3.2-2, Williamson Act Contract Parcels. No parcels within the Urban Growth Boundary are subject to Williamson Act contracts.

Table 3.2-1 Important Farmland Classifications

Farmland Designation	Acres	Percent of Urban Growth Boundary
Prime Farmland	949.9	8.1
Farmland of Statewide Importance	215.1	1.8
Farmland of Local Importance	316.3	2.7
Unique Farmland	46.1	0.4
Grazing Land	2,054.9	17.5
Important Farmland Subtotal	3,582.3	30.5
Other Land	1,662.7	14.1
Urban and Built-up Land	6,518.2	55.4
Total Land	11,763.2	100.0

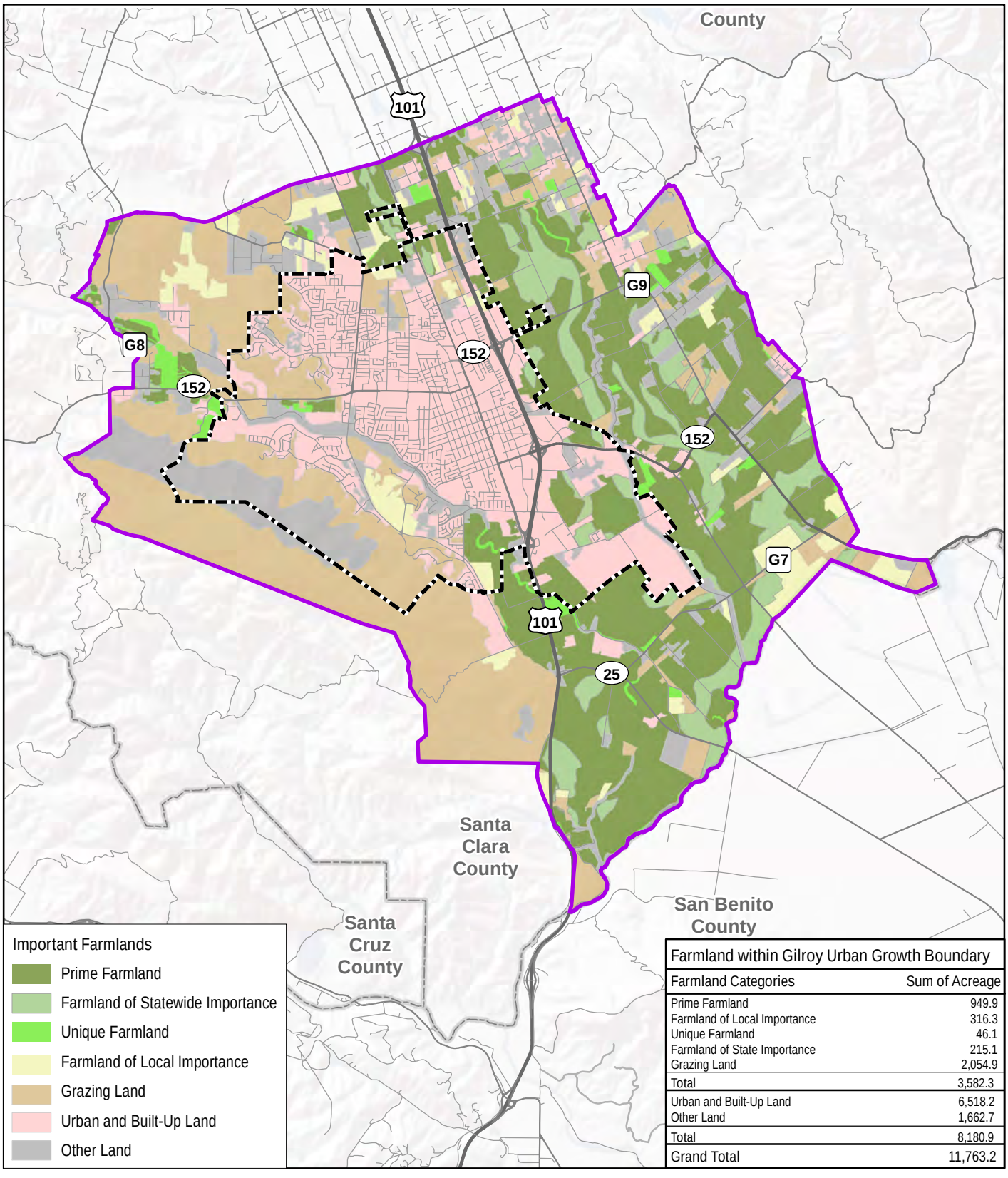
Source: California Department of Conservation 2016; Esri 2020
Notes: Totals may vary due to rounding

Soils

The United States Department of Agriculture, Soil Conservation Service, identifies over fifty soils types within the Urban Growth Boundary. The locations of all soils types within the project site are presented in Figure 3.2-3, Soils Map. These soils types and their characteristics are listed and described in Section 3.6, Geologic Hazards.

Natural plant communities present in the 2040 Gilroy General Plan Planning Area/Sphere of Influence mainly include non-native grassland, oak woodland, and riparian forest. None of the lands supporting these communities are located within an area zoned for forestland, timberland, or timberland production by either the County of Santa Clara or the City of Gilroy. Natural plant communities of oak woodlands and riparian forest areas within the Urban Growth Boundary meet the state definition for their resource value to aesthetics, fish and wildlife, biodiversity, water quality, and recreation as discussed elsewhere in this document. Oak woodlands are present within the southwestern portion of the Urban Growth Boundary in the open space area adjacent to the Eagle Ridge community. Several additional pockets are also found within the Urban Growth Boundary near its northwestern boundary between Hecker Pass Highway and Day Road. Few riparian forests are present within the Urban Growth Boundary; however, significant linear corridors of high-quality riparian forest and scrub vegetation are found within the central and eastern portions of the Urban Growth Boundary along Uvas Creek and Llagas Creek.

The naturally-occurring native oak woodlands and riparian forest provide habitat for wildlife and aesthetic value thus qualifying as forestland resources. These forestland resources are located within the Gilroy 2040 General Plan Urban Growth Boundary Hillside Residential, Parks and Recreation, and Open Space land use designations. Threats to forest



Source: California Department of Conservation Farmland Mapping & Monitoring Program 2016, Esri 2015

Figure 3.2-1

Important Farmlands Map

Gilroy 2040 General Plan EIR

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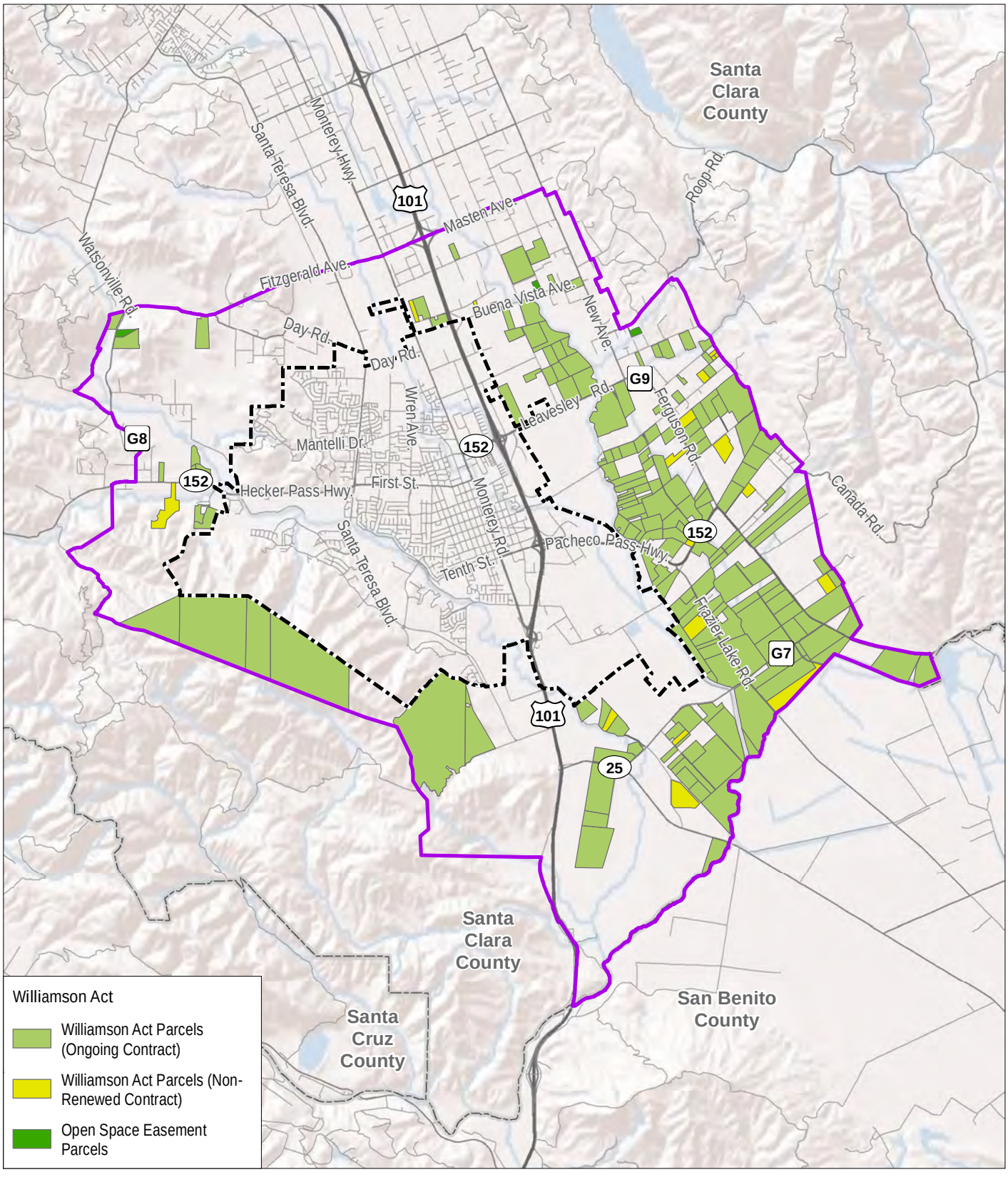

Source: Santa Clara County Planning Office 2020, Esri 2015

Figure 3.2-2

Williamson Act Contract Parcels

Gilroy 2040 General Plan EIR

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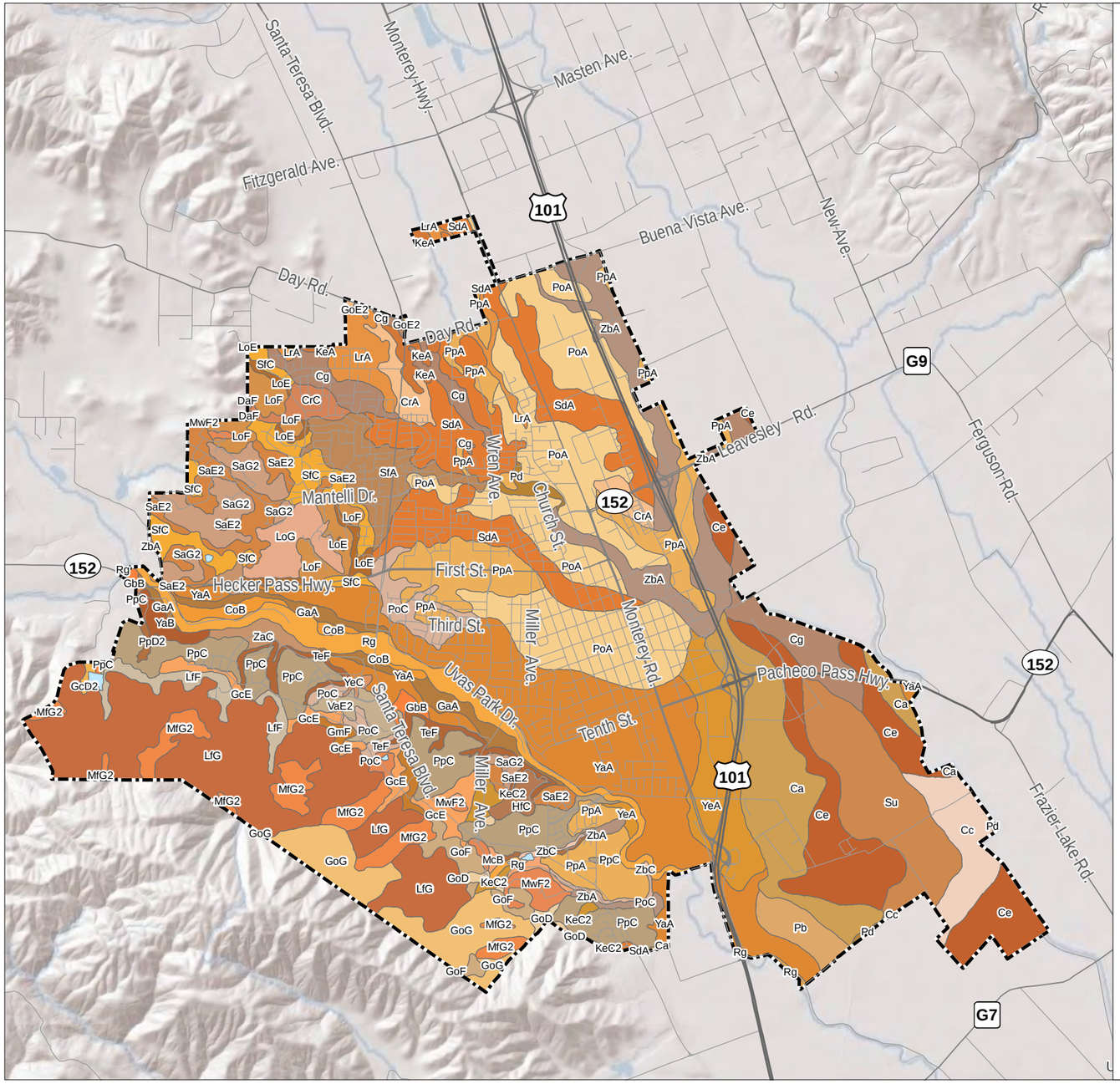

Soil Map Unit

- Ca: Campbell silty clay loam
- Cc: Campbell silty clay loam, clay substratum
- Ce: Campbell silty clay, muck substratum
- Cg: Clear Lake clay, 0 to 2 percent slopes, occasionally flooded, MLRA 14
- CoB: Cortina very gravelly loam, 0 to 5 percent slopes
- CrA: Cropley clay, 0 to 2 percent slopes
- CrC: Cropley clay, 2 to 9 percent slopes
- DaF: Diablo clay, 30 to 50 percent slopes
- GaA: Garretson loam, gravel substratum, 0 to 2 percent slopes
- GbB: Garretson gravelly loam, 0 to 5 percent slopes
- GcD2: Gaviota loam, 5 to 15 percent slopes, eroded
- GcE: Gaviota loam, 15 to 30 percent slopes
- GmF: Gaviota-Los Gatos complex, 30 to 50 percent slopes, MLRA 15
- GoD: Gilroy clay loam, 5 to 30 percent slopes
- GoE2: Gilroy clay loam, 15 to 30 percent slopes, eroded
- GoF: Gilroy clay loam, 30 to 50 percent slopes
- GoG: Gilroy clay loam, 50 to 75 percent slopes
- HfC: Hillgate silt loam, 2 to 9 percent slopes
- HfD2: Hillgate silt loam, 9 to 15 percent slopes, eroded
- KeA: Keefers clay loam, 0 to 2 percent slopes
- KeC2: Keefers clay loam, 2 to 9 percent slopes, eroded
- LfF: Los Gatos gravelly loam, 30 to 50 percent slopes
- LfG: Los Gatos gravelly loam, 50 to 75 percent slopes
- LoE: Los Osos clay loam, 15 to 30 percent slopes
- LoF: Los Osos clay loam, 30 to 50 percent slopes, MLRA 15
- LoG: Los Osos clay loam, 50 to 75 percent slopes, MLRA 15
- LrA: Los Robles clay loam, 0 to 2 percent slopes
- McB: Maxwell clay, 0 to 5 percent slopes
- MfG2: Maymen rocky fine sandy loam, 50 to 75 percent slopes, eroded
- MwF2: Montara rocky clay loam, 15 to 50 percent slopes, eroded
- Pb: Pacheco silt loam, drained
- Pd: Pacheco clay loam
- PoA: Pleasanton loam, 0 to 2 percent slopes
- PoC: Pleasanton loam, 2 to 9 percent slopes
- PpA: Pleasanton gravelly loam, 0 to 2 percent slopes
- PpC: Pleasanton gravelly loam, 2 to 9 percent slopes
- PpD2: Pleasanton gravelly loam, 9 to 15 percent slopes, eroded
- Rg: Riverwash
- SaE2: San Andreas fine sandy loam, 15 to 30 percent slopes, eroded
- SaG2: San Andreas fine sandy loam, 30 to 75 percent slopes, eroded
- SdA: San Ysidro loam, 0 to 2 percent slopes
- SfA: San Ysidro loam, acid variant, 0 to 2 percent slopes
- SfC: San Ysidro loam, acid variant, 2 to 9 percent slopes
- Su: Sunnyvale silty clay
- TeF: Terrace escarpments
- VaE2: Vallecitos rocky loam, 15 to 30 percent slopes, eroded
- W: WATER
- YaA: Yolo loam, 0 to 2 percent slopes
- YaB: Yolo loam, 2 to 5 percent slopes
- YeA: Yolo silty clay loam, 0 to 2 percent slopes
- YeC: Yolo silty clay loam, 2 to 9 percent slopes
- ZaC: Zamora loam, 2 to 9 percent slopes
- ZbA: Zamora clay loam, 0 to 2 percent slopes
- ZbC: Zamora clay loam, 2 to 9 percent slopes

0 4,500 feet

Source: Soil Survey Staff, Natural Resources Conservation Service, Department of Agriculture 2015, Esri 2015

Figure 3.2-3
Soils Map
Gilroy 2040 General Plan EIR

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resources include multiple factors that could compromise the integrity and conservation of various land cover types, such as climate change; habitat loss, conversion, and fragmentation; invasive species (pathogens, plants, and animals); air pollution; and fire suppression. Impacts to the aesthetic value of hillsides and riparian areas are discussed in Section 3.1 Aesthetics. The biological importance of forest resources within the Urban Growth Boundary and potential impacts to these resources are discussed in Section 3.4, Biological Resources (see also Figure 3.4-1). The recreational value of Gilroy's Open Space and Parks and Recreation land use designations within which oak woodlands and riparian resources are found are discussed in Section 3.16, Parks and Recreation Facilities.

Regulatory Setting

State – Department of Conservation

The California Department of Conservation defines Prime Farmland and Farmland of Statewide Importance as follows:

> Land Use: Has been used for irrigated agricultural production at some time during the four years prior to the Important Farmland Map date. Irrigated land use is determined by FMMP staff by analyzing current aerial photos, local comment letters, and related GIS data, supplemented with field verification; and
>
> Soil: The soil must meet the physical and chemical criteria for Prime Farmland or Farmland of Statewide Importance as determined by the USDA Natural Resources Conservation Service (NRCS). NRCS compiles lists of which soils in each survey area meet the quality criteria. Factors considered in qualification of a soil by NRCS include the following: water moisture regimes, available water capacity, and developed irrigation water supply; soil temperature range; acid-alkali balance; water table; soil sodium content; flooding (uncontrolled runoff from natural precipitation); erodibility; permeability rate; rock fragment content; and soil rooting depth.

Regional

Santa Clara County General Plan. The county's general plan land use designations adjacent to the Urban Growth Boundary consist primarily of Rural Residential, Ranchlands, Agriculture Large-scale, Agriculture Medium-scale, Hillsides, and Open Space Reserve.

Joint County-City Programs. In order to maintain the long-term viability of agriculture, a multi-jurisdictional approach between the County of Santa Clara and local agencies was established to preserve agricultural land in the southern Santa Clara Valley. This approach led to adoption of *the Strategies to Balance Planned Growth and Agricultural Viability and preparation of the South County Agricultural Preserve Study*, a joint report prepared by the County of Santa Clara, the City of Gilroy, and LAFCO. The 1995 study assessed the land

characteristics and development pressures in the southern Santa Clara Valley and identified those areas most suitable for continued agricultural production. Through the establishment of agricultural buffers, right to farm ordinances, land trusts, conservation easements, and directed growth within the city's 2020 General Plan 20-year Growth Boundary, the south county agricultural preserve program aims to reduce rapid urbanization of prime agricultural land. The areas targeted for conservation under this program are not located within the proposed Urban Growth Boundary.

Santa Clara Valley Agricultural Plan. Adopted in January 2018 by the Santa Clara County Board of Supervisors, the Santa Clara Valley Agricultural Plan is a regional effort led by the County of Santa Clara and the Santa Clara Valley Open Space Authority (OSA) to conserve Santa Clara Valley's farmland and ranchland as an innovative climate change mitigation and economic development strategy. Funded in part by cap and trade revenues through the state's Sustainable Agricultural Lands Conservation Program (SALCP), the Santa Clara Valley Agricultural Plan will help avoid future greenhouse gas emissions by reducing conversion of working farm lands and focusing development in existing urban areas. The three key goals to advance agricultural land conservation within Santa Clara Valley (including the City of Gilroy) are as follows:

1. Keeping Santa Clara Valley working lands at work;
2. Honoring the importance of agriculture to Santa Clara Valley; and
3. Crafting a unified regional land use policy framework for the future.

By linking State and regional efforts with those of Santa Clara County, cities, special districts and the agricultural community, the Santa Clara Valley Agricultural Plan is intended to help to reach California's climate goals while providing for a more sustainable agricultural future for the County.

City of Gilroy

Agricultural Mitigation Policy. Gilroy has long been a center for agricultural production and industry. In recent years, agriculturally based tourism has become important to the city's economy. To protect agricultural production and related industries, the city adopted its Agricultural Mitigation Policy in 2004 to identify methods to enable the continued viability of agriculture and agritourism in the Gilroy vicinity. The City Council adopted an update to the policy on January 4, 2016. The updated Agricultural Mitigation Policy is included in Appendix D. If a project site meets either of two criteria, the proposed project is subject to the Agricultural Mitigation Policy:

- Conversion to urban uses of lands designated as Prime Farmland or Farmland of Statewide Importance; or
- The site scores as significant based on the California Department of Conservation Agricultural Land Evaluation and Site Assessment (LESA Model).

Per Section 1.02 Agricultural Mitigation Requirements of the Agricultural Mitigation Policy, mitigation of significant agricultural impacts can be accomplished with one of two options:

- Mitigation Option 1: Purchase an equal amount of land (1:1 ratio) of agricultural land within the "Preferred Areas" and the transfer of ownership of this land to the Silicon Valley Land Conservancy or other city-approved agency.
- Mitigation Option 2: Purchase of development rights to a 1:1 ratio on agricultural land within the "Preferred Areas" and the transfer of ownership of these rights to the Silicon Valley Land Conservancy or other city-approved agency.

The Agricultural Mitigation Policy also requires the establishment of buffers to minimize conflicts between agricultural and non-agricultural land uses. The buffer must consist of a 100-foot buffer area and 50-foot transition area for a total depth of 150 feet, measured from the edge of the County-designated agricultural, agricultural preserve, or greenbelt area. All new developments adjacent to County-designated agricultural, agricultural preserve, agricultural open space, greenbelt/agricultural buffer areas shall be required to provide the buffer. Generally, this would apply to development at the southern and eastern boundaries of the Urban Growth Area.

Zoning. Zoning districts that permit agricultural activities are A1-Agriculture and OS-Open Space. Agriculture is conditionally permitted in residential districts (R1, R2, R3, R4, and RH).

The lands in the Agriculture District (A1) are expected to be urbanized ultimately in accordance with the General Plan. In the interim, these lands provide areas for agricultural activities. The minimum lot size is intended to preserve lots in sizes suitable for agricultural use and potential urban development.

Thresholds of Significance

The City of Gilroy CEQA thresholds of significance state that a project may have a significant effect on the environment if it would:

- Convert prime farmland or farmland of statewide importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to an urban use (projects requiring a legislative act, such as zoning changes, annexation to the city, urban service area amendments, etc.). An impact is significant if project site is 10 acres or greater of prime farmland or 40 acres or greater of farmland of statewide importance and has a LESA model score in the significant range;
- Conflict with a Williamson Act contract. An impact is significant if property is in a Williamson Act contract not filed for non-renewal, or that has more than three years left (from NOP date) on a contract for which a notice of non-renewal was filed;

- Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to nonagricultural use. An impact is significant if there is a land use incompatibility. Incompatible land use is determined on a project-by-project basis. Examples include residential uses, schools, and any other use sensitive to the impacts (noise, dust, pesticides, etc.) associated with adjacent agricultural operations.

Analysis, Impacts, and Mitigation

POTENTIAL IMPACT	Loss of up to 1,119 Acres of Important Farmland	Significant and Unavoidable

Under buildout conditions, development within the Urban Growth Boundary could result in the conversion of up to 1,119 acres of important farmland (prime farmland and farmland of statewide importance). This amount does not include approximately 47 acres of farmland in these categories within the Hecker Pass Specific Plan area. These 47 acres have agricultural land use designations and cannot be converted to urban uses. The potential loss of 1,119 acres of important farmland is considered a significant, adverse environmental impact.

Gilroy 2040 General Plan

Areas outside of the Urban Growth Boundary but within the Gilroy 2040 General Plan Planning Area/Sphere of Influence would be designated as "Rural County" (Refer to Figure 2.2-1). Other areas within the Urban Growth Boundary such as the Hecker Pass Specific Plan include acreage planned for permanent agriculture and agricultural tourism uses.

The purpose of the city's Rural County land use designation is to preserve productive agriculture and rural residential and hillside land uses located outside the Urban Growth Boundary. Much of the area designated by the city as Rural County has soils capable of producing a wide variety of crops or supporting grazing. The county's general plan land use designations adjacent to and outside the Urban Growth Boundary consist primarily of Rural Residential, Ranchlands, Agriculture Large-scale, Agriculture Medium-scale, Hillsides, and Open Space Reserve. Allowed uses include rural residential, grazing, active agricultural production, associated agricultural processing, sales, and support uses.

The Gilroy 2040 General Plan includes the following goals and policies that support agriculture and would minimize the potential for premature conversion of important farmland within the proposed Urban Growth Boundary. Refer to Appendix C, 2040 Gilroy General Plan Goals, Policies, and Programs, for the full policy language.

The Land Use Element contains the following goals and policies that address the premature conversion of important farmland.

Goal LU 1: Protect and enhance Gilroy's quality of life and unique identity while continuing to grow and change

- LU 1.1 Pattern of Development
- LU 1.2 Residential Growth
- LU 1.3 Phased Commercial Growth
- LU 1.5 Uses East of U.S. 101
- LU 1.10 Urban Service Area Amendments
- LU 1.11 Contiguous Development
- LU 1.12 Interagency Coordination for Growth Management
- LU 1.13 Unincorporated Areas

Policies LU 1.1 - LU 1.3 call for orderly and phased residential, commercial and industrial development to reduce the likelihood of premature conversion of agriculture and other open space areas in recognition of the role of agricultural lands in enhancing Gilroy's semi-rural, small-town character. Policy LU 1.5 includes agricultural land use designations for lands east of U.S. Highway 101. Policy LU 1.10 establishes the timing for acceptance and evaluation of applications for inclusion in the Urban Service Area annually in light of general plan policies promoting infill development and efficient and cost-effective provision of urban services. Policy LU 1.11 discourages development that is not contiguous with existing urban development.

Policy LU 1.12 requires an interagency coordination between Santa Clara County and other south valley communities to ensure a regional approach to growth management. The South County Joint Area Plan, adopted by Santa Clara County, the City of Gilroy, and the City of Morgan Hill shall serve as a reference of recommended policies and approaches to continue this work. Policy LU 1.13 calls for adherence to proper referral procedures for project proposals in unincorporated areas of the Gilroy 2040 General Plan Planning Area/Sphere of Influence, facilitating communication between the city and county on projects that may have an impact on the city's land use plans and policies. Implementation of these policies would reduce the likelihood of premature conversion of important farmland.

Goal LU 2: Ensure the orderly development of large areas of Gilroy through specific plans

- LU 2.1 Specific Plans
- LU 2.2 New or Amended Specific Plans
- LU 2.3 Specific Plans in Non-Residential Areas

Policies LU 2.1 and LU 2.2 require the preparation of specific plans for future development in Neighborhood District land use designations. Policy LU 2.3 requires the preparation of specific plans to guide redevelopment and revitalization of existing non-residential areas.

Goal LU 5: Encourage, facilitate, and support the development of new employment and industrial uses and retention of existing industry to ensure compatibility with existing surrounding uses and planned uses

- LU 5.5 Agriculture in Industrial Areas.

Policy LU 5.5 encourages agriculture as an interim use in areas designated for industrial development.

Goal LU 6: Support agricultural uses in and around Gilroy that have and will continue to influence Gilroy's identity and economy

- LU 6.1 Economic Viability of Agriculture
- LU 6.2 Local Agriculture Production, Distribution, and Sale
- LU 6.3 Agricultural Uses within the Planning Area
- LU 6.4 Agricultural Uses in Hazard Areas
- LU 6.5 Agriculture and Annexation
- LU 6.6 Interagency Cooperation for Agricultural Protection
- LU 6.7 Agricultural Mitigation
- LU 6.8 Local Food Sources
- LU 6.9 Greenbelts

Policies LU 6.1 and LU 6.3 - LU 6.7 encourage continued agricultural cultivation on lands within the "Rural County" land use designation and encourage agricultural uses in areas subject to natural hazards, while discouraging premature annexations, encouraging farmers markets, farm stands, and community markets to support production, distribution, and sale of locally-grown foods particularly in areas that have vacant or underutilized lands, and calling for continued implementation of an Agricultural Mitigation Program. Policy LU 6.8 encourages a community food system to promote local food sources, support nearby agriculture, stimulate the city's economy, and promote a healthy lifestyle for the citizens of Gilroy. These policies are directed toward maintaining the viability of agricultural practices but also indirectly affect agriculture's contribution to the overall aesthetic character of the city and its environs, including lands designated as "Rural County" in unincorporated areas outside the Urban Growth Boundary but within the Gilroy 2040 General Plan Planning Area/Sphere of Influence. Policy LU 6.9 calls for the creation of protected open space greenbelts that may include agricultural uses between Gilroy and surrounding communities.

The above-noted policies are largely part of the growth management components of the Gilroy 2040 General Plan. By managing growth into agricultural areas in a measured way and ensuring that agricultural use of land within the proposed Urban Growth Boundary remains viable until such time as the land is annexed and developed for non-agricultural use, the policies will serve to limit the premature conversion of important farmland.

Conclusion

These policies provide some relief to the premature conversion of important farmland. Policy LU 6.7, regarding Gilroy's agricultural mitigation policy, provides some mitigation relief to the significant loss of important farmland. However, even with implementation of the city's general plan policies and agricultural land mitigation policy that includes purchase of replacement agricultural lands or permanent conservation easement requirements, the loss of important farmland is still considered significant and unavoidable. The City Council will be required to adopt a statement of overriding considerations when adopting the 2040 General Plan.

IMPACT	No Conflict with Williamson Act Contracts	No Impact

As noted in Figure 3.2-2, Williamson Act Contract Parcels, no parcels within the Urban Growth Boundary are currently subject to the requirements of the Williamson Act. According to the city's thresholds of significance, a Williamson Act contract impact is considered significant if a project site is in a Williamson Act contract and the property owner has not filed for non-renewal, or the project site has more than three years left (from the notice of preparation of an EIR date) on a contract for which a notice of non-renewal was filed.

Conclusion

There are no parcels in a Williamson Act Contract within the Urban Growth Boundary. Therefore, no impacts resulting from conflicts with parcels with Williamson Act contracts would occur. No further discussion is required regarding the potential effects of implementing the proposed Gilroy 2040 General Plan on parcels in a Williamson Act contract.

IMPACT	Other Changes that Could Result in Conversion of Farmland to Non-Agricultural Use	Less Than Significant

Implementation of the Gilroy 2040 General Plan will lead to temporary conflicts with county zoning for agricultural land within the proposed Urban Growth Boundary currently outside of the city's existing Urban Services Area boundary and city limit. This land could be converted to non-agricultural land uses. This conflict with existing county zoning would be resolved through the Urban Service Area amendment, annexation, and pre-zoning process that project applicants would be required to undertake through the city and LAFCO. The pre-zoning processes would be used to identify and establish new zoning on such lands that

is consistent with the proposed land use as designated in the Gilroy 2040 General Plan. Approval of Urban Service Area amendments by LAFCO would result in the removal of county zoning from the subject lands.

Implementation of the Gilroy 2040 General Plan also would result in new urban development being constructed immediately adjacent to actively farmed agricultural land within and adjacent to the Urban Growth Boundary. Incompatibility between these uses can lead to nuisances involving noise, dust, chemical use/drift, vandalism and traffic hazards. Nuisance issues can in turn pressure farm operators to alter practices that can result in reduced agricultural productivity/profitability. Rising land values resulting from enhanced land values of nearby developed properties also may motivate owners of agricultural land to cease agricultural operations in light of the economic gains that can be made from urban development.

Conclusion

Compliance with the city's Agricultural Mitigation Policy requires a 150-foot buffer adjacent to areas with a Santa Clara County agriculture designation adjacent to the Urban Growth Boundary. Future developer compliance with this policy, in addition to implementation of the Gilroy 2040 General Plan goals and policies identified earlier in this section will reduce the potential for land use conflicts to a less-than-significant level.

3.3 AIR QUALITY

This section evaluates the potential impacts of the buildout of the Gilroy 2040 General Plan on regional and local air quality. Information in this section is derived from a variety of sources including:

- *Gilroy 2040 General Plan Background Report* (Mintier Harnish 2014);
- *City of Gilroy Climate Action Plan Administrative Draft* (AECOM 2015);
- *2017 CEQA Air Quality Guidelines* (Bay Area Air Quality Management District 2017a);
- *City of Gilroy 2040 General Plan Transportation Analysis* (Hexagon Transportation Consultants 2020) (Appendix G); and
- *City of Gilroy 2040 General Plan Greenhouse Gas Emissions Modeling Methodologies and Assumptions* (EMC Planning Group 2020) (Appendix E).

The Bay Area Air Quality Management District ("air district") submitted comments on the revised NOP that address air quality. The revised NOP and comment letters are included in Appendix B.

Environmental Setting

Air Basin Characteristics and Climate

The proposed project is located within the Santa Clara Valley subregion of the San Francisco Bay Area Air Basin (hereinafter "air basin"). The Santa Clara Valley extends for about 40 miles on a northwest by southeast axis. For air quality purposes, the Santa Clara Valley is bounded by San Francisco Bay to the north, by mountains to the east and west, and a range of hills to the south. Temperatures are warm on summer days and cool on summer nights, and winter temperatures are fairly mild. Temperatures generally increase from north to south as the moderating effect of San Francisco Bay diminishes. At the northern end of the Santa Clara Valley, mean maximum temperatures in degrees Fahrenheit are in the low 80s during the summer and the high 50s during the winter, and the mean minimum temperature ranges from the high 50s in the summer to the low 40s in the winter. The proposed project is located in the southern portion of the Santa Clara Valley, where temperatures can be more than ten degrees warmer on summer afternoons and more than ten degrees cooler on winter nights than temperatures measured in the northern portion of the valley.

Winds in the Santa Clara Valley are greatly influenced by the terrain, resulting in a prevailing flow that roughly parallels the Santa Clara Valley's northwest-southeast axis. A north-northwesterly sea breeze flows through the Santa Clara Valley during the afternoon and early evening, and a light south-southeasterly flow occurs during the late evening and early morning. In the summer, the southern end of the Santa Clara Valley, including Gilroy, sometimes becomes a "convergence zone," when air flowing from the Monterey Bay gets channeled northward into the southern end of the Santa Clara Valley and meets with the prevailing north-northwesterly winds. Wind speeds are greatest in the spring and summer and weakest in the fall and winter. Nighttime and early morning hours frequently have calm winds in all seasons, while summer afternoons and evenings are quite breezy. Strong winds are rare, associated mostly with winter storms.

Air pollution potential in the Santa Clara Valley is high due to elevated summer temperatures, stable air, and mountains surrounding the valley, all promoting ozone formation. Many local sources of pollution, due to a concentration of industry, combine with ozone precursors from San Francisco, San Mateo, and Alameda counties carried southward by prevailing winds to the Santa Clara Valley (Bay Area Air Quality Management District 2017a).

Criteria Air Pollutants and their Effects on Human Health

The six most common and widespread air pollutants of concern, or "criteria pollutants," are ground-level ozone, nitrogen oxides, particulate matter, carbon monoxide, sulfur dioxide, and lead. In addition, reactive organic gases are a key contributor to the criteria pollutants because they react with other substances to form ground-level ozone. In general, criteria pollutants are pervasive constituents, such as those emitted in vast quantities by the combustion of fossil fuels.

The common properties, sources, and related health and environmental effects of criteria air pollutants are summarized in Table 3.3-1, Common Criteria Air Pollutants.

Table 3.3-1 Common Criteria Air Pollutants

Pollutant	Properties	Major Sources	Related Health & Environmental Effects
Ozone (O3)	Created by the chemical reaction between nitrogen oxides and volatile organic compounds in the presence of heat and sunlight. Ground-level ozone is the principal component of smog.	▪ Motor vehicle exhaust; ▪ Industrial emissions; ▪ Gasoline vapors; ▪ Chemical solvents.	▪ Reduced lung capacity; Irritation of lung airways and inflammation; ▪ Aggravated asthma; ▪ Increased susceptibility to respiratory illnesses (i.e. bronchitis).
Reactive Organic Gases (ROG)	Precursor of ground-level ozone.	▪ Petroleum transfer and storage; ▪ Mobile sources; ▪ Organic solvents.	▪ Potential carcinogen (e.g. benzene); ▪ Toxic to plants and animals.
Nitrogen Oxides (NOX)	Group of highly reactive gases containing nitrogen in varying amounts. Many nitrogen oxides are odorless and colorless.	▪ Motor vehicles; ▪ Electric utilities; ▪ Industrial, commercial, and residential sources that burn fuel.	▪ Toxic to plants; ▪ Reduced visibility; ▪ Respiratory irritant.
Suspended and Fine Particulate Matter (PM10) (PM2.5)	Describes particles in the air, including dust, soot, smoke, and liquid droplets. Others are so small that they can only be detected with an electron microscope.	▪ Motor vehicles; ▪ Factories; ▪ Construction sites; ▪ Tilled farm fields; ▪ Unpaved roads; ▪ Wood burning.	▪ Aggravated asthma; ▪ Increases in respiratory symptoms; ▪ Decreased lung function; ▪ Premature death; ▪ Reduced visibility.
Carbon Monoxide (CO)	Colorless, odorless gas that is formed when carbon in fuel is not burned completely.	▪ Fuel combustion; ▪ Industrial processes; ▪ Highly congested traffic.	▪ Chest pain for those with heart disease; ▪ Vision problems; ▪ Reduced mental alertness; ▪ Death (at high levels)
Sulfur Oxides (SOX)	Sulfur oxide gases are formed when fuel containing sulfur such as coal and oil is burned and when gasoline is extracted from oil, or metals are extracted from ore.	▪ Electric utilities (especially coal-burning); ▪ Industrial facilities that derive their products from raw materials to produce process heat.	▪ Respiratory illness, particularly in children and the elderly; ▪ Aggravates existing heart and lung diseases.
Lead (Pb)	Becomes airborne as a component of exhaust following fuel combustion.	▪ Combustion of leaded gasoline; ▪ Mobile sources such as aircraft and locomotives.	▪ Organ, brain, nervous system damage; ▪ Behavioral and hearing disabilities, ▪ Anemia; ▪ Mental retardation and lowered IQ.

Source: United States Environmental Protection Agency 2018

Health effects of criteria air pollutants include, but are not limited to, asthma, bronchitis, chest pain, coughing, throat irritation, and airway inflammation. Currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between criteria air pollutant emissions from buildout of a general plan and specific human health impacts. The air district's thresholds of significance for criteria air pollutants are not intended to be indicative of any localized human health impact that development within a planning area may have. The CEQA air quality analysis for criteria air pollutants is not a localized, project-level impact analysis but one of regional, cumulative impacts. For these reasons, it is not the norm for CEQA practitioners to conduct an analysis of the localized health impacts associated with a plan's criteria air pollutant emissions as part of the CEQA process.

Ozone. Ground-level ozone (also "O_3") is produced by chemical reactions, which are triggered by sunlight, involving nitrogen oxides and reactive organic gases. Since ozone is not directly emitted to the atmosphere, but is formed because of photochemical reactions, it is considered a secondary pollutant. Ozone is a seasonal problem, occurring roughly from April through October.

Ozone is a strong irritant that attacks the respiratory system, leading to the damage of lung tissue. Asthma, bronchitis, and other respiratory ailments, as well as cardiovascular diseases, are aggravated by exposure to ozone. A healthy person exposed to high concentrations may become nauseated or dizzy, may develop a headache or cough, or may experience a burning sensation in the chest. Research has shown that exposure to ozone damages the alveoli (the individual air sacs in the lung where the exchange of oxygen and carbon dioxide between the air and blood takes place). Research has shown that ozone also damages vegetation.

Reactive Organic Gases (Ozone Precursor). Reactive organic gases (also "ROG"), or volatile organic compounds (also "VOC"), are emitted from a variety of sources, including liquid and solid fuel combustion, evaporation of organic solvents, and waste disposal.

Nitrogen Oxides (Ozone Precursor). Most nitrogen oxides (also "NO_x") are created during combustion of fuels. Nitrogen oxides are a major contributor to ozone formation. Nitrogen dioxide is a reddish-brown gas that can irritate the lungs and can cause breathing difficulties at high concentrations. Like ozone, nitrogen dioxide is not directly emitted, but is formed through a reaction between nitric oxides and atmospheric oxygen. Nitrogen dioxide also contributes to the formation of particulate matter (see discussion below). Nitrogen dioxide concentrations in the air basin have been well below ambient air quality standards. Therefore, nitrogen dioxide concentrations from land use projects are not a concern.

Particulate Matter. Particulate matter is comprised of small, suspended particles, primarily composed of dust particles, nitrates, and sulfates. Particulate matter is classified as under 10 microns (suspended particulate matter or "PM_{10}") and under 2.5 microns (fine particulate matter or "$PM_{2.5}$"). Suspended particulate matter is directly emitted to the atmosphere as a

byproduct of fuel combustion, wind erosion of soil and unpaved roads, and from construction or agricultural operations. Small particles are also created in the atmosphere through chemical reactions. Approximately 64 percent of fugitive dust is suspended particulate matter. Minimal grading typically generates about 10 pounds per day per acre on average while excavation and earthmoving activities typically generate about 38 pounds per day per acre.

Although particles greater than 10 microns in diameter can cause irritation in the nose, throat, and bronchial tubes, natural mechanisms remove much of these particles. Particles less than 10 microns in diameter are able to pass through the body's natural defenses and the mucous membranes of the upper respiratory tract and enter into the lungs. The particles can damage the alveoli. The particles may also carry carcinogens and other toxic compounds, which can adhere to the particle surfaces and enter the lungs.

Carbon Monoxide. Carbon monoxide (also "CO") is a component of motor vehicle exhaust, which contributes about 56 percent of all carbon monoxide emissions nationwide. Other non-road engines and vehicles (such as construction equipment and boats) contribute about 22 percent of all carbon monoxide emissions nationwide. Carbon monoxide can cause harmful health effects by reducing oxygen delivery to the body's organs (like the heart and brain) and tissues. Carbon monoxide contributes to the formation of ground-level ozone.

Higher levels of carbon monoxide generally occur in areas with heavy traffic congestion. In cities, 85 to 95 percent of all carbon monoxide emissions may come from motor vehicle exhaust. Concentration of carbon monoxide is a direct function of vehicle idling time and, thus, traffic flow conditions. Transport of carbon monoxide is extremely limited: it disperses rapidly from the source under normal meteorological conditions. Under certain meteorological conditions, however, carbon monoxide concentrations close to a congested roadway or intersection may reach unhealthful levels, affecting local sensitive receptors (residents, school children, hospital patients, the elderly, etc.). Emissions thresholds established for carbon monoxide apply to direct or stationary sources.

Typically, high carbon monoxide concentrations are associated with roadways or intersections operating at unacceptable levels of service. Congested intersections with high volumes of traffic could cause carbon monoxide "hot spots," where localized high concentrations of carbon monoxide occur.

Sulfur Oxides. Sulfur oxides (also "SO_x") are gases formed when fuel containing sulfur, such as coal and oil, is burned, when gasoline is extracted from oil, or metals are extracted from ore. Sulfur oxides dissolve in water vapor to form acid, and interacts with other gases and particles in the air to form sulfates and other products that can be harmful to people and their environment.

Lead. Lead is a metal found naturally in the environment as well as in manufactured products. Thirty years ago, mobile sources were the main contributor to ambient lead

concentrations in the air. Lead was phased out of on-road vehicle gasoline between 1975 and 1996 (Newell and Rogers 2003). As a result, levels of lead in the air decreased 98 percent between 1980 and 2014 (United States Environmental Protection Agency 2017). 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.

Sources of Criteria Pollutants

On-road Vehicles. The gasoline and diesel fuels used in most on-road vehicles are mixtures of hydrocarbons, compounds which contain hydrogen and carbon atoms. Hydrocarbon emissions result when fuel molecules in the engine do not burn or burn only partially. Hydrocarbon pollutants also escape into the air through fuel evaporation. On-road cars, trucks, motorcycles, and buses are a major source of criteria pollutants. Approximately 57 percent of ROG emissions and 63 percent of NO_X emissions in the air basin are attributed to vehicular traffic. Off-road mobile sources contribute approximately 9 percent of ROG emissions and 18 percent of NO_X emissions (Bay Area Air Quality Management District 2017b, Figures 2-4 and 2-5). Cars and trucks produce air pollution throughout their life, including pollution emitted during vehicle operation, refueling, manufacturing, and disposal. Additional emissions are associated with the refining and distribution of vehicle fuel.

Off-road Construction, Industrial, and Agricultural Vehicles. Emissions generated during construction are "short-term" in the sense that they would be limited to periods of site development and construction. Agricultural emissions are frequently seasonal or occur sporadically. Off-road vehicle emissions are typically generated by the use of heavy equipment and the transport of materials. Emissions consist primarily of reactive organic gases, nitrogen oxides, suspended particulate matter, and carbon monoxide. Emissions of reactive organic gases, nitrogen oxides, and carbon monoxide are generated primarily by the operation of gas and diesel-powered motor vehicles. Calculating ROG and NO_X emissions from typical construction equipment is not necessary in air quality analysis of projects because temporary emissions of these ozone precursors have been accommodated in state- and federally-required air quality plans. Construction equipment exhaust PM_{10} emissions of 82 pounds per day or greater are considered significant.

Construction, Industrial, and Agricultural Dust. Suspended particulate matter emissions are generated primarily by wind erosion of exposed graded or tilled surfaces. Construction- and agricultural-generated emissions vary substantially from day to day depending on the level of activity, the specific construction equipment used, and weather conditions. Construction- and agricultural-related emissions can cause a substantial increase in localized concentrations of PM_{10}, for which the air basin is currently in nonattainment. Particulate emissions from construction and agricultural activities can lead to adverse health effects, as well as nuisance concerns such as reduced visibility and soiling of exposed surfaces.

The air district has not established a threshold for fugitive dust emissions from grading and other construction activities, but rather relies on best management practices to reduce dust emissions at all construction sites. The initial phases of construction generate the highest emissions of PM_{10} from fugitive dust because initial site preparation activities typically involve the most intense grading. During other construction phases, additional materials would be imported to the site including base rock, select soil/gravel for trenches and building pads, and asphalt for paving. Without controls, dust from construction would be transported off-site via wind erosion of unpaved surfaces or through soils tracked onto paved roads where PM_{10} enters the air through the motion of passing cars and trucks.

Area Sources. Area sources are fixed or local pollution sources that are not issued individual operating permits by the air district. Area sources include fuel combustion from space and water heating, landscape maintenance equipment, and fireplaces/stoves, evaporative emissions from asphalt paving activities, architectural coatings, and consumer products (e.g. adhesives, cleaners, hair spray). Area sources also include those criteria emissions from stationary sources that do not fall under air district permitting.

Stationary Sources. Stationary sources are primarily considered a source of toxic air contaminants, but many stationary sources do emit particulate matter, which is classified as a criteria pollutant as well. Many of the stationary sources emitting significant volumes of particulate matter are involved in industrial processes such as quarrying or processing of earth materials.

Air Quality Monitoring. Ambient air quality is monitored at one monitoring station within Gilroy and a nearby monitoring station in San Martin, about five miles to the north. The monitoring station within Gilroy is located on Ninth Street, and monitors ozone and $PM_{2.5}$. The San Martin monitoring station is located at the San Martin Airport and monitors ozone. Table 3.3-2, Annual Air Quality Standards Violations, summarizes the number of days on which each constituent exceeded the standard at each monitoring station during each of the eight years from 2010 to 2018.

Toxic Air Contaminants and their Effects on Human Health

Toxic air contaminants are pollutants that may be expected to result in an increase in mortality or serious illness or may pose a present or potential health hazard. Health effects include cancer, birth defects, neurological damage, damage to the body's natural defense system, and diseases that lead to death. Toxic air contaminants can be classified as either carcinogens or non-carcinogens. Some criteria pollutants are also treated as toxic air contaminants, including particulate matter, lead, and vinyl chloride.

Table 3.3-2 Annual Air Quality Standards Violations

Location	Year	Federal 1-hr Ozone	State 1-hr Ozone	Federal 8-hr Ozone	State 8-hr Ozone	Federal $PM_{2.5}$
Gilroy	2010	0	0	7	7	0
Gilroy	2011	0	0	1	1	1
Gilroy	2012	0	0	2	2	0
Gilroy	2013	0	0	0	0	0
Gilroy	2014	0	0	4	4	0
Gilroy	2015	0	1	3	3	2
Gilroy	2016	0	0	0	0	0
Gilroy	2017	0	1	1	1	2.2
Gilroy	2018	0	1	0	0	12.6
Gilroy Total		0	3	18	18	17.8
San Martin	2010	0	0	8	8	n/a
San Martin	2011	0	0	1	2	n/a
San Martin	2012	0	0	3	4	n/a
San Martin	2013	0	0	1	1	n/a
San Martin	2014	0	1	4	5	n/a
San Martin	2015	0	1	4	4	n/a
San Martin	2016	0	1	1	1	n/a
San Martin	2017	0	1	3	3	n/a
San Martin	2018	0	0	1	1	n/a
San Martin Total		0	4	26	29	n/a

Source: California Air Resources Board 2020c

Toxic Air Contaminant Characteristics

Toxic air contaminants are air pollutants that may lead to serious illness or increased mortality, even when present in relatively low concentrations. Potential human health effects of toxic air contaminants include birth defects, neurological damage, cancer, and death. There are hundreds of different types of toxic air contaminants with varying degrees of toxicity. Individual toxic air contaminants vary greatly in the health risk they present. At a given level of exposure, one toxic air contaminant may pose a hazard that is many times greater than another.

The air district considers an incremental risk of greater than ten cases per million, over a 70-year exposure period, for the Maximally Exposed Individual to be a significant impact (Bay Area Air Quality Management District 2011). The ten excess cases per million equates to the possibility of causing 10 additional cancer cases in a population of one million. The ten-in-one-million risk level is used by the Air Toxics "Hot Spots" (AB 2588) program and California's Proposition 65 as the public notification level for air toxic emissions from existing sources. The United States Environmental Protection Agency (hereinafter "EPA")

has established National Emission Standards for Hazardous Air Pollutants, which are applicable to asbestos, beryllium, mercury, vinyl chloride, benzene, arsenic, and radon/radionuclides (Environmental Protection Agency 2016).

Toxic air contaminants are defined in California Health and Safety Code section 39655. Based on the California Health and Safety Code definition, the State establishes a list of toxic air contaminants in California Code of Regulations section 93000. The list was most recently revised in 2007 and includes the following substances:

- Benzene (C_6H_6);
- Ethylene Dibromide ($BrCH_2CH_2Br$, 1,2-dibromoethane);
- Ethylene Dichloride ($ClCH_2CH_2Cl$, 1,2-dichloroethane);
- Hexavalent chromium (Cr (VI));
- Asbestos [asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite (amosite), tremolite, actinolite, and anthophyllite];
- Dibenzo-p-dioxins and Dibenzofurans chlorinated in the 2, 3, 7 and 8 positions and containing 4, 5, 6 or 7 chlorine atoms;
- Cadmium (metallic cadmium and cadmium compounds);
- Carbon Tetrachloride (CCl_4, tetrachloromethane);
- Ethylene Oxide (1,2-epoxyethane);
- Methylene Chloride (CH_2Cl_2, Dichloromethane);
- Trichloroethylene (CCl_2CHCl, Trichloroethene);
- Chloroform ($CHCl_3$);
- Vinyl chloride (C_2H_3Cl, Chloroethylene);
- Inorganic Arsenic;
- Nickel (metallic nickel and inorganic nickel compounds);
- Perchloroethylene (C_2Cl_4, Tetrachloroethylene);
- Formaldehyde (HCHO);
- 1,3-Butadiene (C_4H_6);
- Inorganic Lead;

- Particulate Emissions from Diesel-Fueled Engines; and
- Environmental Tobacco Smoke.

California Code of Regulations section 93001 establishes a much longer list of "hazardous air pollutants," derived from the Clean Air Act. Some of these substances are duplicative of the section 93000 list. Two types of toxic air contaminants are more common or more relevant to land use planning: diesel particulate matter and asbestos.

Diesel Particulate Matter. Diesel exhaust is the predominant toxic air contaminant in urban air and is estimated to represent about two-thirds of the cancer risk from toxic air contaminants. Diesel engines emit a complex mix of pollutants including nitrogen oxides, particulate matter, and toxic air contaminants. The most visible constituents of diesel exhaust are very small carbon particles or soot, known as diesel particulate matter. Diesel exhaust also contains over 40 cancer-causing substances, most of which are readily adsorbed on the soot particles. Among the toxic air contaminants contained in diesel exhaust are dioxin, lead, polycyclic organic matter, and acrolein. Short-term exposure to diesel particulate matter is associated with variable irritation and inflammatory symptoms. Diesel engine emissions are responsible for about 70 percent of California's estimated cancer risk attributable to toxic air contaminants (California Air Resources Board 2020a). As a significant fraction of particulate pollution, diesel particulate matter contributes to numerous health impacts, including increased hospital admissions, particularly for heart disease, but also for respiratory illness, and even premature death.

Diesel exhaust is especially common during the grading stage of construction (when most of the heavy equipment is used), and adjacent to heavily trafficked roadways where diesel trucks are common. The EPA regulates diesel engine design and fuel composition at the federal level, and has implemented a series of measures since 1993 to reduce nitrogen oxides and particulate emissions from off-road and highway diesel equipment. Before EPA began regulating sulfur in diesel, diesel fuel contained as much as 5,000 parts per million (ppm) of sulfur. In 2006, EPA introduced stringent regulations to lower the amount of sulfur in diesel fuels to 15 ppm (United States Environmental Protection Agency 2019a). This fuel is known as ultra-low sulfur diesel.

EPA Tier 1 non-road diesel engine standards were introduced in 1996, Tier 2 in 2001, Tier 3 in 2006, with final Tier 4 in 2014 (DieselNet 2017). Table 3.3-3, Typical Non-road Engine Emissions Standards, compares emissions standards for NO_x and particulate matter from non-road engine Tier 1 through Tier 4 for typical engine sizes.

As illustrated in the table, emissions for these pollutants have decreased significantly for construction equipment manufactured over the past 20 years, and especially for construction equipment manufactured in the past five years.

Table 3.3-3 Typical Non-road Engine Emissions Standards

Engine Tier and Year Introduced	NO_X Emissions[1]			Particulate Emissions[1]		
	100-175 HP	175-300 HP	300-600 HP	100-175 HP	175-300 HP	300-600 HP
Tier 1 (1996)	6.90	6.90	6.90	--	0.40	0.40
Tier 2 (2001)	--[2]	--[2]	--[2]	0.22	0.15	0.15
Tier 3 (2006)	--[2]	--[2]	--[2]	-- †[3]	-- †[3]	-- †[3]
Tier 4 (2014)	0.30	0.30	0.30	0.015	0.015	0.015

Source: DieselNet 2017

Notes:

1. Expressed in g/bhp-hr, where g/bhp-hr stands for grams per brake horsepower-hour.
2. Tier 1 standards for NOX remained in effect.
3. † - Not adopted, engines must meet Tier 2 PM standard.

In California, non-road equipment fleets can retain older equipment, but fleets must meet averaged emissions limits, new equipment must be Tier 3 or better after January 2018 (for large and medium fleets) or January 2023 (for small fleets), and over time the older equipment must be fitted with particulate filters. Large and medium fleets have increasingly strict fleet compliance targets through 2023 and small fleets through 2029. A small fleet has total horse power of 2,500 or less, and a medium fleet has total horsepower of between 2,500 and 5,000. Owners or operators of portable engines and other types of equipment can register their units under the California Air Resources Board's (CARB) statewide Portable Equipment Registration Program in order to operate their equipment throughout California without having to obtain individual permits from local air districts (California Air Resources Board 2020b).

Airborne Asbestos. Asbestos handling and disposal are regulated by Federal and State law. Asbestos is found in several kinds of building materials. Asbestos is generally not harmful when asbestos-containing materials are left undisturbed, but when disturbed, microscopic fibers can be dislodged and remain in the air for long periods. If asbestos fibers are inhaled, they can become lodged in body tissues and pose a serious health threat, in particular lung disease.

Asbestos is also found naturally-occurring in certain rock formations in the California Coast Ranges and elsewhere. Asbestos is the generic term for the naturally-occurring fibrous (asbestiform) varieties of six silicate minerals. These minerals are: chrysotile, tremolite (when fibrous), actinolite (when fibrous), crocidolite (*fibrous riebeckite*), anthophyllite (*when fibrous*), and amosite (*fibrous cummingtonite-grunerite*). Chrysotile is the most common asbestos mineral in California and belongs to the serpentine mineral group. Naturally occurring asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or weathered. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. Weathered asbestos becomes a component of

the soil and can migrate downstream. Asbestos-containing rock has sometimes been used for unpaved gravel roads, landscaping, and fill. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. Major areas of serpentine rock outcroppings within Santa Clara County are located in the San Francisco Bay watershed, and as far south as the Coyote Ridge area along U.S. Highway 101, just north of Morgan Hill.

Serpentine rocks and soils, although present in the Gilroy 2040 General Plan Planning Area/Sphere of Influence, are not common within the Urban Growth Boundary. Most of the formations are found in areas designated as Open Space, but also been observed within the Glen Loma Ranch Specific Plan area, south of Christmas Hill and Mesa Road, and between Farman Canyon and Reservoir Canyon. The Glen Loma Ranch Specific Plan identifies serpentine rocks and soils into an open space area identified as the "Rocky Knoll Habitat Area" on the Specific Plan land use map. Serpentine soils also are known to occur between Reservoir Canyon and Babbs Canyon, and small patches are found between Hecker Pass and Day Road, west of Gilroy. It is possible that serpentine soils may also occur in other undocumented areas.

Pollutant Concentrations Affecting Sensitive Receptors

Although air pollution can affect all segments of the population, certain groups are more susceptible to its adverse effects than others. Children, the elderly, and the chronically or acutely ill are the most sensitive population groups. These sensitive receptors are commonly associated with specific land uses such as residential areas, schools, parks, senior citizen communities, and hospitals. In addition, certain air pollutants, such as carbon monoxide, only have significant effects if they directly affect a sensitive population.

Sources of Toxic Air Contaminants

High Traffic Roadways. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) encourages local land use agencies to consider the risks from air pollution prior to making decisions that approve the siting of new sensitive receptors (e.g., schools, homes, or daycare centers) near sources of concentrated air pollution. Unlike industrial or stationary sources of air pollution, siting of new sensitive receptors does not require air quality permits or approval by air districts, but could increase risks of air pollution-related health problems. The risks of exposure to diesel exhaust and potential health effects resulting from prolonged exposure are greater near high-volume freeways. On-road diesel-fueled vehicles contribute about 26 percent of statewide diesel particulate matter emissions, and on a typical urban freeway (truck traffic of 10,000—20,000 per day), diesel particulate matter represents about 70 percent of the potential cancer risk from the vehicle traffic. A separation of 500 feet between high volume roadways and sensitive receptors is recommended. In urban areas a high-volume freeway is defined as having average daily trips greater than 100,000. In a rural area, a high-volume roadway is one with more than 50,000 trips per day (California Air Resources Board 2005). U.S. Highway 101 bisects the Gilroy 2040 General Plan Planning Area/Sphere of Influence and carries between

63,000 and 115,000 trips per day on average, with as many as 123,000 trips per day during the peak month. State Route 152 carries 6,200 to 41,500 trips per day on average, with the highest volumes between Monterey Street and the eastern city limits (California Department of Transportation 2017).

Construction Emissions. Emissions generated during construction are "short-term" in the sense that they would be limited to the actual periods of site development and construction. Short-term construction emissions are typically generated by the use of heavy equipment, the transport of materials, and construction employee commute trips. Construction-related emissions consist primarily of reactive organic gases, nitrogen oxides, suspended particulate matter, and carbon monoxide. Emissions of reactive organic gases, nitrogen oxides, and carbon monoxide are generated primarily by the operation of gas and diesel-powered motor vehicles, asphalt paving activities, and the application of architectural coatings. Suspended particulate matter emissions are generated primarily by wind erosion of exposed graded surfaces. Construction-generated emissions vary substantially from day to day depending on the level of activity, the specific construction equipment used, and weather conditions. Construction-related emissions can cause a substantial increase in localized concentrations of suspended particulate matter. Particulate emissions from construction activities can lead to adverse health effects, as well as nuisance concerns such as reduced visibility and dust accumulation on exposed surfaces. The air district has not established a threshold for fugitive dust emissions from grading and other construction activities, but rather relies on best management practices to reduce dust emissions at all construction sites.

Permitted Stationary Sources

The air district issues permits for stationary equipment that would result in the emission of toxic air contaminants, and maintains a database of these sources. Generally, if a sensitive land use is proposed within 1,000 feet of an existing source, or if a new source is proposed within 1,000 feet of a sensitive receptor, the potential effects must be considered. Those existing stationary sources that exceed screening thresholds are listed in Table 3.3-4, Existing Stationary Sources Above Screening Level.

Table 3.3-4 Existing Stationary Sources Above Screening Level

Number	Description	Type	Location	Cancer Risk	Health Index	$PM_{2.5}$
8826	Star Concrete		25 Buena Vista	0.00	0.000	2.630
3329	St. Louise Hospital		9400 No Name Uno	113.89	0.051	0.214
15780	City of Gilroy	Gen	9257 Rancho Hills	57.40	0.020	0.013
16877	Antonio del Buono School	Gen	9300 Wren	17.32	0.006	0.004
17742	Home Depot	Gen	8850 San Ysidro	52.00	0.018	0.012
15779	City of Gilroy	Gen	2145 Country	97.86	0.035	0.173
15774	City of Gilroy	Gen	8295 Murray	13.69	0.005	0.024
G10121	Unocal #6230	GDF	601 Leavesley	36.234	0.060	n/a

Number	Description	Type	Location	Cancer Risk	Health Index	$PM_{2.5}$
G11371	Chevron #9-0049	GDF	401 Leavesley	59.093	0.098	n/a
G11256	Gilroy Shell and Car Wash	GDF	400 Leavesley	50.525	0.084	n/a
G8705	Rotten Robbie #31	GDF	390 Leavesley	26.129	0.043	n/a
G10886	Gilroy Valero	GDF	300 Leavesley	22.087	0.037	n/a
6237	Germain Technology Group		8333 Swanston	0.01	0.000	7.380
15080	Lowes	Gen	7151 Cam Arroyo	11.73	0.0416	0.208
14643	Gilroy (Bonfante) Gardens	Gen	3050 Hecker Pass	20.91	0.008	0.038
G11761	Westwood Chevron	GDF	7999 Westwood	25.551	0.042	n/a
G8386	Valero	GDF	1190 First	29.053	0.048	n/a
G10158	City of Gilroy Gas Station	GDF	700 First	14.4436	0.024	n/a
G3472	Unocal #4053	GDF	601 First	29.882	0.049	n/a
G11016	Hecker Pass Gas Mart	GDF	398 First	14.580	0.024	n/a
14520	Kaiser Permanente	Gen	7520 Cam Arroyo	21.55	0.008	0.038
13444	Verizon California	Gen	7578 Eigleberry	32.69	0.012	0.058
7288	Granite Rock Company		6475 Chestnut	0.00	0.000	0.813
G10758	Costco Gasoline	GDF	7201 Cam Arroyo	93.491	0.155	n/a
G11337	Quick Stuff #7760	GDF	7110 Cam Arroyo	31.181	0.052	n/a
17025	Verizon Wireless	Gen	731 Renz	11.89	0.004	0.003
18550	City of Gilroy	Gen	7235 Forest	10.06	0.004	0.002
17082	City of Gilroy City Hall	Gen	7370 Rosanna	80.36	0.028	0.019
17080	City of Gilroy	Gen	7070 Chestnut	14.96	0.005	0.027
11328	Gilroy Foods		1280 Pacheco Pass	27.43	0.010	17.100
11327	Gilroy Foods		1350 Pacheco Pass	0.20	0.001	16.100
11180	Calpine Gilroy Cogen Energy		1400 Pacheco Pass	6.63	0.108	55.000
G11877	Monterey Chevron	GDF	7000 Monterey	14.436	0.024	n/a
G11191	AGM Gilroy	GDF	6991 Monterey	15.591	0.026	n/a
15781	Gilroy	Gen	1857 Club	27.91	0.010	0.049
15117	Bay Sheets		6791 Alexander	0.24	0.002	0.660
2233	Temple-Inland		6400 Jamieson	47.78	0.021	1.330
15118	Granite Construction Co.		3201 Old Monterey	0.00	0.000	187.000
G10463	Garlic Farm Center	GDF	5920 Travel Park	44.029	0.073	n/a
13920	South County Wastewater	Gen	900 Southside	85.77	0.030	0.020
1381	South County Wastewater		1500 Southside	130.33	0.046	0.231
16153	Gilroy Water Dept. Pump Sta.	Gen	6311 Miller	15.62	0.006	0.028

Source: Mintier Harnish 2014, page 10-12

Note: The cancer risk factors are defined as number of excess cases resulting from exposure. Acute and chronic exposure to non-carcinogens is expressed as a hazard index, which is the ratio of expected exposure levels to an acceptable reference exposure level. "GDF" is gasoline dispensing facility. "Gen" means a diesel generator is the only source. Type listed as provided by the air district. Shaded entries are over the threshold for individual project single source.

The health risk screening factors are conservative numbers that assume a 24-hour exposure every day for 70 years. A screening factor that is below the level of significance has no chance of a significant effect, and screening factors that are above the level of significance should be further investigated. Screening factors may be adjusted to reflect distance of the source from the receptor, climate, or other factors that influence exposure.

Odors

Odor impacts could result from siting a new odor source near existing sensitive receptors or siting a new sensitive receptor near an existing odor source. Odors are generally regarded as an annoyance rather than a health hazard, although some odorous substances can be harmful at higher concentrations. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). Major odor sources located in or near Gilroy are the wastewater treatment plant and the food processing plants along Pacheco Pass Highway. Farming, which occurs in several locations adjacent to city, can occasionally result in noticeable odors.

Regulatory Setting

Federal and State Clean Air Acts

Air quality is regulated on the state and federal level. The Clean Air Act, adopted in 1970 and amended in 1990, set federal standards for air quality. The California Clean Air Act was adopted by the California legislature in 1988 and amended in 1992.

The federal Clean Air Act provides the basis for federal air quality standards. The federal Clean Air Act required the EPA to set National Ambient Air Quality Standards for several air pollutants on the basis of human health and welfare criteria. The Clean Air Act also set deadlines for the attainment of these standards. Two types of national air standards, primary and secondary standards, are established by the Clean Air Act. Primary standards set limits to protect public health, including the health of sensitive persons such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.

In general, the Clean Air Act creates a partnership between state and federal governments for implementation of the Clean Air Act provisions. The federal Clean Air Act requires states to prepare an air quality control plan known as a State Implementation Plan. California's State Implementation Plan contains the strategies and control measures California will use to attain the National Ambient Air Quality Standards. If, when reviewing the State Implementation Plan for conformity with Clean Air Act Amendments mandates, the EPA determines a State Implementation Plan to be inadequate, it may prepare a Federal Implementation Plan for the non-attainment area and may impose additional control measures.

The Lewis-Presley Air Quality Management Act, adopted in 1976 and amended in 1987, and the California Clean Air Act, provide the basis for air quality regulation in California. The California Clean Air Act requires that all air districts in the state endeavor to achieve and maintain California Ambient Air Quality Standards for ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, and particulate matter. The California Clean Air Act specifies that air districts focus particular attention on reducing the emissions from transportation and area-wide emission sources, and the California Clean Air Act provides districts with authority to regulate indirect sources.

Federal and State Standards for Air Pollutants

Ambient air quality is described in terms of compliance with the federal and state standards. Both the federal and state governments have developed ambient air quality standards for the most prevalent pollutants, which include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulate matter, and fine particulate matter. Table 3.3-5, Federal and State Ambient Air Quality Standards, lists federal and state ambient air quality standards for common air pollutants. The state standards generally have lower thresholds than the federal standards, yet both are applicable to the proposed project. When thresholds are exceeded at regional monitoring stations, an "attainment plan" must be prepared that outlines how an air district will achieve compliance. Generally, these plans must provide for district-wide emission reductions of five percent per year averaged over consecutive three-year periods.

Table 3.3-5 Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]			
		Concentration[3]		Primary[3,4]		Secondary[3,5]	
		ppm	µg/m^3	ppm	µg/ m^3	ppm	µg/ m^3
Ozone	1 Hour	0.09	180	-	-	-	-
	8 Hour	0.07	137	0.070	137	0.070	137
PM_{10}[6]	24 Hour	-	50	-	150	-	150
	Annual	-	20	-	-	-	-
$PM_{2.5}$[6]	24 Hour	-	-	-	35	-	35
	Annual	-	12	-	12	-	15
Carbon Monoxide (CO)	8 Hour	9	10	9	10	-	-
	1 Hour	20	23	35	40	-	-
Nitrogen Dioxide (NO_2)[7]	Annual	0.030	57	0.053	100	0.053	100
	1 Hour	0.18	339	0.1	188	-	-
Sulfur Dioxide (SO_2)[8]	Annual	-	-	0.030	See note[10]	-	-
	24 Hour	0.04	105	0.14	See note[10]	-	-
	3 Hour	-	-	-	-	0.5	1,300
	1 Hour	0.25	655	0.075	196	-	-

Lead[9,10]	30 Day Average		1.5	-	-	-	-
	3 month revolving	-	-		0.15		0.15
	Calendar Quarter	-	-	See note[10]	1.5	See note[10]	1.5
Visibility Reducing Particles[11]	8 Hour	See note[11]		No Federal Standards			
Sulfates	24 Hour		25				
Hydrogen Sulfide	1 Hour	0.03	42				
Vinyl Chloride[9]	24 Hour	0.01	26				

Source: California Air Resources Board 2016a.

Notes:

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter— PM_{10}, $PM_{2.5}$, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/m3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact EPA for further clarification and current federal policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
5. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
6. On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 μg/m3 to 12.0 μg/m3. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 μg/m3, as was the annual secondary standard of 15 μg/m3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 μg/m3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
7. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
8. On June 2, 2010, a new 1-hour SO_2 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. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
9. The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
10. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 μg/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
11. In 1989, the CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

National Emissions Standards for Hazardous Air Pollutants are emissions standards set by the EPA for an air pollutant not covered by National Ambient Air Quality Standards that may cause an increase in fatalities or in serious, irreversible, or incapacitating illness. The

standards for a particular source category require the maximum degree of emission reduction that the EPA determines to be achievable, which is known as the Maximum Achievable Control Technology.

Implementing Agencies

United States Environmental Protection Agency. The EPA was established in 1970, the same year the federal Clean Air Act was passed, and has primary responsibility for establishing the standards the states must enforce, conducting research, and providing financial and technical assistance to the states. When necessary, the EPA steps in to aid the states in implementation and enforcement of clean air regulations.

California Air Resources Board. The federal Clean Air Act gives states primary responsibility for directly monitoring, controlling, and preventing air pollution. The CARB is responsible for coordination and oversight of federal, state, and local air pollution control programs in California and for implementing the requirements of the federal Clean Air Act and California Clean Air Act. The duties of the CARB include coordinating air quality attainment efforts, setting standards, conducting research, and creating solutions to air pollution. The CARB is composed of regional districts that are charged with developing attainment plans for their regions. The CARB grants regional air districts explicit statutory authority to adopt indirect source regulations and transportation control measures, including measures to encourage the use of ridesharing, flexible work hours, or other measures that reduce the number or length of vehicle trips.

Bay Area Air Quality Management District. The air district is the agency with primary responsibility for assuring that federal and state ambient air quality standards are attained and maintained in the air basin. The air basin encompasses all of seven counties: Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara and Napa, and portions of two others: southwestern Solano and southern Sonoma. The air district is charged with regulatory authority over stationary sources of air emissions, monitoring air quality within the air basin, providing guidelines for analysis of air quality impacts pursuant to CEQA, and preparing an air quality management plan to maintain or improve air quality in the air basin.

Air pollutants of concern in the air basin are ozone, particulate matter (PM_{10} and $PM_{2.5}$), and toxic air contaminants (Bay Area Air Quality Management District 2017a).

Air Basin Attainment Status

The CARB is required to designate areas of the state as attainment, non-attainment, or unclassified with regard to its compliance with state standards for criteria air pollutants. An "attainment" designation for an area signifies that pollutant concentrations do not violate the standard for that pollutant in that area. A "non-attainment" designation indicates that a pollutant concentration violated the standard at least once, excluding an "unclassified" designation that signifies available data does not support either an attainment or non-

attainment status. A "non-attainment transitional" status is a subcategory of the nonattainment designation and signifies that the area is close to attaining the standard for that pollutant. The California Clean Air Act divides districts into moderate, serious, and severe air pollution non-attainment categories, with increasingly stringent control requirements mandated for each category.

Ambient air quality is monitored by the air district at eight locations in Santa Clara County. The ozone and particulate matter in the air basin currently exceed state ambient air quality standards and therefore have a "non-attainment" status. Table 3.3-6, Air Basin Attainment Status Designations, identifies the current status within the air basin for each criteria pollutant.

Table 3.3-6 Air Basin Attainment Status Designations

Pollutant	State	Federal
Ozone (O_3)	Non-attainment	Non-attainment
Inhalable Particulates (PM_{10})	Non-attainment	Unclassified
Fine Particulates ($PM_{2.5}$)	Non-attainment	Non-attainment[1]
Carbon Monoxide (CO)	Attainment	Unclassified/Attainment
Nitrogen Dioxide (NO_2)	Attainment	Unclassified/Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Lead (Pb)	Attainment	-

Source: Bay Area Air Quality Management District 2017a

Note:

1 On January 9, 2013, EPA issued a final rule to determine that the Bay Area attains the 24-hour $PM_{2.5}$ national standard. This EPA rule suspends key State Implementation Plan requirements as long as monitoring data continues to show that the air district attains the standard. Despite this EPA action, the Bay Area will continue to be designated as "non-attainment" for the national 24-hour $PM_{2.5}$ standard until such time as the air district submits a "re-designation request" and a "maintenance plan" to EPA and EPA approves the proposed re-designation.

Air Quality Management Plans

The federal Clean Air Act requires areas with unhealthful levels of ozone, inhalable particulate matter, carbon monoxide, nitrogen dioxide, and sulfur dioxide to develop plans, known as State Implementation Plans. State Implementation Plans are comprehensive plans that describe how an area will attain national ambient air quality standards. State Implementation Plans are a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), district rules, state regulations, and federal controls. California grants air districts explicit statutory authority to adopt indirect source regulations and transportation control measures, including measures to encourage the use of ridesharing, flexible work hours, or other measures that reduce the number or length of vehicle trips. Local air districts and other agencies, such as the Bureau of Automotive Repair and the Department of Pesticide Regulation, prepare State Implementation Plan elements and submit them to the CARB for review and approval. The CARB forwards State Implementation Plan revisions to the EPA for approval and publication in the Federal

Register. The 1990 amendments to the federal Clean Air Act set deadlines for attainment based on the severity of an area's air pollution problem.

The air district is delegated with the responsibility at the local level to implement both federal and state mandates for improving air quality in the air basin through an air quality plan. When thresholds are exceeded at regional monitoring stations on consecutive accounts, an attainment plan must be prepared that outlines how an air quality district will achieve compliance. Generally, these plans must provide for district-wide emission reductions of five percent per year averaged over consecutive three-year periods. The air district periodically prepares and updates plans in order to attain state and national air quality standards, comply with air quality planning requirements, and achieve the goal of clean and healthful air. These plans also report on progress in improving air quality and provide a road map to guide the air district's future activities.

The air district has adopted several plans in an attempt to achieve state and federal air quality standards. Because the air basin has been designated as a non-attainment area for the national ozone standard since 1998, the air district has prepared ozone attainment plans in 1999, 2001, and 2005, and 2010. The *2017 Clean Air Plan: Spare the Air, Cool the Climate* ("2017 Clean Air Plan") updates the air district's 2010 Clean Air Plan, pursuant to the requirements of the California Health and Safety Code. The 2017 Clean Air Plan defines an integrated, multi-pollutant control strategy to reduce emissions of particulate matter, toxic air contaminants, ozone precursors, and greenhouse gases. The 2017 Clean Air Plan includes a variety of control measures, many of which relate to industrial uses or are for regional implementation. Other control measures relate to residential or commercial development. Refer to Volume 2 of the 2017 Clean Air Plan for full descriptions of the control measures (Bay Area Air Quality Management District 2017b). Control measures relevant to the proposed project are described in the following paragraphs.

Although the 2017 Clean Air Plan contains numerous control measures, only those control measures that are relevant to the proposed project are described in the following paragraph.

TR2: Trip Reduction Programs. The Trip Reduction measure includes a mandatory and voluntary trip reduction program. The regional Commuter Benefits Program, and similar local programs in jurisdictions with ordinances that require employers to offer pre-tax transit benefits to their employees, are mandatory programs. Voluntary programs include outreach to employers to encourage them to implement strategies that encourage their employees to use alternatives to driving alone.

TR3: Local and Regional Bus Service. This control measure will improve existing transit service on the region's core transit systems, and include new bus rapid transit lines in San Francisco, Oakland, and Santa Clara County.

TR5: Transit Efficiency and Use. This measure will improve transit efficiency and make transit more convenient for riders.

TR6: Freeway and Arterial Operations. This measure improves the performance and efficiency of freeway and arterial systems through operational improvements.

TR7: Safe Routes to Schools and Transit. This measure will facilitate safe routes to schools and transit.

TR8: Ridesharing and Last-Mile Connections. The Ridesharing and Last-Mile Connections measure will promote ridesharing services and incentives.

TR9: Bicycle and Pedestrian Access and Facilities. The bicycle component of this measure will expand bicycle facilities serving employment sites, educational and cultural facilities, residential areas, shopping districts, and other activity centers. The pedestrian component of this measure will improve pedestrian facilities and encourage walking by funding projects that improve pedestrian access to transit, employment sites, and major activity centers.

TR10: Land Use Strategies. This measure supports land use patterns that reduce vehicle miles traveled and associated emissions and exposure to toxic air contaminants, especially within infill locations and impacted communities.

TR13: Parking Policies. This control measure 1) outlines actions at the regional level to implement parking policies that will benefit air quality, and 2) encourages and supports local agency parking policies to reduce motor vehicle travel and promote focused growth.

TR14: Cars and Light Trucks. This control measure summarizes actions to expand the use of Zero Emission Vehicles (ZEVs) and Plug-in Electric Vehicles (PEV) within the Bay Area.

TR15: Public Outreach. This control measure includes various public outreach campaigns to educate the public about the health effects of air pollution and the air quality benefits of reducing motor-vehicle trips and choosing transportation modes that reduce motor vehicle emissions.

T18: Goods Movement. This control measure includes regional programs to reduce emissions associated with goods movement.

TR19: Medium- and Heavy-Duty Trucks. The measure will directly provide incentives for the purchase of 1) new trucks with engines that exceed CARB's 2010 NOx emission standards for heavy-duty engines, 2) new hybrid trucks, and 3) new zero-emission trucks.

TR22: Construction, Freight, and Farming Equipment. This measure works to reduce emissions from off-road equipment used in the construction, freight handling, and farming industries.

EN1: Decarbonize Electricity Generation. The measure would promote and expedite a transition away from fossil fuels used in electricity generation (i.e., natural gas) to a greater reliance on renewable energy sources (e.g., wind, solar). In addition, this measure would promote an increase in cogeneration, which results in useful heat in addition to electricity generation from a single fuel source.

EN2: Decrease Energy Use. This measure focuses on decreasing energy use in the Bay Area by (1) increasing consumer awareness about energy efficiency through education and outreach and (2) tracking electricity use.

BL4: Urban Heat Island Mitigation. This control measure aims to reduce the "urban heat island" phenomenon by increasing the application of "cool roofing" and "cool paving" technologies, as well as increasing the prevalence of urban forests and vegetation, through voluntary approaches and educational outreach.

NW2: Urban Tree Planting. The control measure promotes the planting of trees in urbanized settings to take advantage of the myriad benefits provided by these trees, including: shading to reduce both the "urban heat island" phenomenon and the need for space cooling, and the absorption of ambient criteria air pollutants as well as carbon dioxide.

In addition to the 2017 Clean Air Plan, the air district prepared a fine particulate matter inventory and published *Understanding Particulate Matter: Protecting Public Health in the San Francisco Bay Area* in 2012, for inclusion in the State Implementation Plan (Bay Area Air Quality Management District 2012). On January 9, 2013, EPA issued a final rule to determine that the Bay Area attains the 24-hour $PM_{2.5}$ national standard. This EPA rule suspends key State Implementation Plan requirements as long as monitoring data continues to show that the air district attains the standard. Despite this EPA action, the Bay Area will continue to be designated as "non-attainment" for the national 24-hour $PM_{2.5}$ standard until such time as the air district submits a "re-designation request" and a "maintenance plan" to EPA and EPA approves the proposed re-designation.

Air District Rules and Regulations

The air district promulgates a variety of rules and regulations to further its goals of reducing air pollutants and hazardous air emissions. Rules cover a range of topics, including permitting for stationary air emissions sources, control of a variety of industrial operations, wood and waste burning regulation, odor control, the VOC content of architectural coatings, off-road diesel emissions regulations, and incentives for reduced emissions from vehicles.

Toxic Air Contaminant Regulations

Toxic air contaminants are regulated by the air district using a risk-based approach. A health risk assessment is an analysis in which human health exposure to toxic substances is estimated, and considered together with information regarding the toxic potency of the substances, to provide quantitative estimates of health risks. In general, a health risk assessment is required if screening suggests that projected emissions of a specific air toxic compound from a proposed new or modified stationary source may pose a public health risk. A health risk assessment evaluates the chronic, long-term health effects, calculating the increased risk of cancer as a result of exposure to one or more toxic air contaminants for the source in question. A cancer risk in excess of ten cases per million population, health risk

over 1.0, or $PM_{2.5}$ over 0.3 micrograms (μ g)/m^3 annual average is considered significant (Bay Area Are Quality Management District 2017a).

In addition to monitoring criteria pollutants, both the air district and the CARB operate toxic air contaminants monitoring networks in the San Francisco Bay Area. These stations measure 10 to 15 toxic air contaminants, depending on the specific likelihood of contaminants at each station. The toxic air contaminants selected for monitoring are those that have traditionally been found in the highest concentrations in ambient air in that location, and therefore tend to produce the most significant risk. The ambient toxic air contaminants monitoring station nearest Gilroy is located about 28 miles northwest on Fourth Street in San Jose.

Through its Community Air Risk Evaluation Program, the air district has identified six communities within the air basin that are at especially high risk from toxic air contaminants. The Gilroy 2040 General Plan Planning Area/Sphere of Influence is not within one of those communities.

State Odor Regulation

Statewide standards or regulation of odors is limited to hydrogen sulfide and odors associated with composting operations. In 1969, the CARB adopted a state-wide ambient air quality standard for hydrogen sulfide of 0.03 ppm (30 ppb, 42 mg/m^3), averaged over a period of one hour and not to be equaled or exceeded. This standard was adopted to protect the general public against nuisance "rotten egg" smell. In 1999, the California Office of Environmental Health Hazard Assessment adopted the 30-ppb standard as an acute Reference Exposure Level for use in evaluating peak off-site concentrations from industrial facilities subject to requirements in California Health and Safety Code Section 44300 et seq. In 2000 the California Office of Environmental Health Hazard Assessment adopted a level of 8 ppb (10 mg/m^3) as the chronic Reference Exposure Level for use in evaluating long term emissions from Hot Spots facilities. At hydrogen sulfide concentrations exceeding 50 ppm (70 mg/m^3), olfactory fatigue prevents detection of odors. At even higher concentrations, hydrogen sulfide can cause illness or death (California Air Resources Board and California Office of Environmental Health Hazard Assessment 2000).

Facilities that are regulated by Cal Recycle (e.g. landfill, composting, etc.) are required to have Odor Impact Minimization Plans in place and have procedures that establish fence line odor detection thresholds (Bay Area Air Quality Management District 2017a, page 2-6).

Thresholds of Significance

The City of Gilroy CEQA thresholds of significance state that a project may have a significant effect on the environment if it would:

- Conflict with the 2017 Bay Area Air Quality Management District Clean Air Plan. Significance is based on the air district's methodology. A project is considered

consistent with the 2017 Clean Air Plan if it supports the primary goals of the 2017 Clean Air Plan, includes applicable 2017 Clean Air Plan control measures, and would not disrupt or hinder implementation of any 2017 Clean Air Plan control measures.

- Violate any air quality standard or contribute substantially to an existing or projected air quality violation: The air district indicates that any project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact.

  The air district's CEQA Guidelines method of criteria air pollutant analysis for plans is based on meeting the following two thresholds:

  - Consistency with 2017 Clean Air Plan control measures (as above); and
  - A proposed plan's projected vehicle miles traveled or vehicle trips (either measure may be used) increase is less than or equal to its projected population increase.

- Result in a cumulatively considerable net increase of any criteria pollutant for which the region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors). A project is considered to result in a cumulatively considerable impact if the project individually has a significant air quality impact, or is inconsistent with the 2017 Clean Air Plan.

- Expose sensitive receptors (residential areas, schools, hospitals, nursing homes) to substantial pollutant concentrations. The air district's CEQA Guidelines provide the following guidance for plans with regard to community risk and hazard impacts:

  - The land use diagram must identify special overlay zones around existing and planned sources of toxic air contaminants, and special overlay zones of at least 500 feet (or air district-approved modeled distance) on each side of all freeways and high-volume roadways; and
  - The plan must also identify goals, policies, and objectives to minimize potential impacts and create overlay zones for sources of toxic air contaminants and receptors. Public Resources Code sections 21151.8, 21159.21, 21159.22, 21159.23, 21159.24, and 21155.1 require consideration of potential effects of hazardous environmental conditions on schools, certain housing, and transit priority projects in order for those projects to qualify for exemptions.

- Create objectionable odors affecting a substantial number of people.

Analysis, Impacts, and Mitigation

IMPACT	Inconsistent with the Clean Air Plan	Less Than Significant, and Consistent, with Mitigation

2017 Clean Air Plan

Section 9.1 of the air district's CEQA Guidelines provides guidance on determining if a general plan is consistent with the 2017 Clean Air Plan. For consistency a project should meet three criteria: 1) support the primary goals of the 2017 Clean Air Plan, 2) include applicable 2017 Clean Air Plan control measures, and 3) not disrupt or hinder implementation of any 2017 Clean Air Plan control measures. Each of these is discussed in this section.

Gilroy 2040 General Plan

The Gilroy 2040 General Plan includes a number of goals and policies that support the goals of the 2017 Clean Air Plan, and directly and indirectly address impacts to air quality through direct or indirect conformance to the 2017 Clean Air Plan control measures. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs for the full policy language.

The Land Use Element contains the following goals and policies that address 2017 Clean Air Plan control measures.

> **Goal LU 1:** Protect and enhance Gilroy's quality of life and unique identity while continuing to grow and change.

- LU 1.1 Pattern of Development
- LU 1.2 Residential Growth
- LU 1.4 Mix of Uses
- LU 1.11 Contiguous Development

Policy LU 1.1 ensures an orderly, contiguous pattern of development that prioritizes infill development, phases new development, encourages compactness and efficiency, preserves surrounding open space and agricultural resources, and avoids land use incompatibilities. Policy LU 1.2 encourages new residential development to locate within the existing Urban Service Area prior to considering expansion of the Urban Service Area. Policy LU 1.4 encourages, through the Land Use Diagram, a diverse mix of land uses to achieve a balance between jobs and housing, to ensure the community's long-term viability, and to increase job opportunities in the city to assist in equalizing the jobs/housing balance, encourage the provision of a range of housing types, mixed-use districts, a diversity of businesses and industries, and adequate services and leisure activities to meet the social and economic needs of residents. Policy LU 1.11 discourages development that is not contiguous with existing urban development.

Goal LU 3: Provide a variety of housing types that offer choices for Gilroy residents and create complete, livable neighborhoods. [New Goal, Consultants

- LU 3.2 Connectivity
- LU 3.3 Residential Building Orientation
- LU 3.5 Neighborhood Infill

Policy LU 3.2 encourages new residential development to incorporate design features that promote walking and connectivity between blocks. Policy LU 3.3 encourages new residential development to orient buildings toward streets or public spaces to actively engage the community and provide complete neighborhoods. Policy LU 3.5 encourages infill developments that enhance neighborhood quality and respond to community input in the planning and design of infill projects or non-residential, neighborhood-serving uses.

Goal LU 4: Encourage the growth and development of retail, office, service, and entertainment uses in Gilroy to provide jobs, support city services, and make Gilroy an attractive place to live.

- LU 4.7 Existing Strip Commercial Uses Connectivity
- LU 4.9 Pedestrian Access
- LU 4.10 Outdoor Activities

Policy LU 4.7 encourages multi-modal connectivity between strip commercial uses. Policy LU 4.9 requires convenient and direct pedestrian connections between residential areas and commercial uses. Policy LU 4.10 encourages outdoor cafes and other outdoor activities in appropriate commercial areas and the Downtown.

Goal LU 5: Encourage, facilitate, and support the development of new employment and industrial uses and retention of existing industry to ensure compatibility with existing surrounding uses and planned uses.

- LU 5.4 Connectivity within Industrial Areas

Policy LU 5.4 encourages greater automobile, bicycle, pedestrian, and transit connections within industrial areas.

Goal LU 7: Encourage mixed-use development projects that create vibrant, walkable districts.

- LU 7.1 Mixed-Use Districts
- LU 7.4 Work/Live
- LU 7.7 Priority Development Areas (PDAs)
- LU 7.8 Transit-Oriented Development

Policy LU 7.1 encourages mixed-use development within the Downtown and in the First Street Mixed-Use District. This development pattern should create vibrant, walkable areas, in contrast to strip retail developments along corridors. Policy LU 7.4 encourages mixed-uses in appropriate non-residential or existing mixed-use areas, facilitates the adaptive reuse of otherwise obsolete structures and promotes the growth of the arts in the community. This policy includes guidance for integrated living/working environments and calls for a discretionary review process in certain instances. Policy LU 7.7 requires the identification of areas near transit suitable for infill development and requires application for their official designation as PDAs by the Association of Bay Area Governments and the Metropolitan Transportation Commission. Policy LU 7.8 encourages higher-density residential uses and mixed-use developments in proximity to transit services including the Caltrain station and multi-modal transit center.

Goal LU 8: Support growth and development that preserves and strengthens the city's historic, small-town character; provides and maintains safe, livable, and affordable neighborhoods; and creates beautiful places

- LU 8.10 Eliminate Large Blocks

Policy LU 8.10 encourages the insertion of new streets or pedestrian ways in large "super blocks" that do not have public streets bisecting them to enhance pedestrian and bicycle circulation and access to these areas, and encourages new developments to eliminate large blocks.

Goal LU 9: Encourage the growth and revitalization of Downtown to create a vibrant, high quality place for residents, businesses, and visitors.

- LU 9.1 Downtown Pedestrian Improvements

Policy LU 9.1 requires working with public and private entities to develop and maintain design improvements to create a safe, convenient, and pleasant pedestrian environment that supports the continued revitalization of the Downtown area. Improvements could include pedestrian-oriented amenities such as lighting, wider sidewalks, clearly marked pedestrian crossings, benches, landscaping, signage, sidewalk seating areas, and public art.

The Mobility Element contains the following goals and policies that conform to the 2017 Clean Air Plan control measures.

Goal M 1: Provide for a safe and efficient transportation system that serves all users.

- M 1.1 Transportation Network
- M 1.2 Street Network Hierarchy
- M 1.3 NACTO Classification System

- M 1.5 Transportation Network Connectivity
- M 1.6 Street Safety and Accessibility
- M 1.7 Reduce Vehicle Miles Traveled
- M 1.8 Street Landscaping
- M 1.9 Interconnected Residential Streets
- M 1.10 Private Streets
- M 1.12 Transportation Demand Management
- M 1.13 Transportation Funding

Policies M 1.1 through M 1.10, and M 1.12 and M 1.13, call for an efficient, consistently-designed, and safe transportation network that emphasizes connectivity and reduces vehicle miles traveled, thereby reducing emissions from mobile sources. Policy M 1.1 calls for development of a coordinated transportation network consistent with the Mobility Diagrams (Figures M-1 through M-5). Policy M 1.2 calls for the provision of a transportation network that has a hierarchy of arterial, collector, and local streets to efficiently move bicycle, pedestrian, and vehicular traffic. Policy M 1.3 requires consideration of the application of context-sensitive roadway classification system used by the National Association of City Transportation Officials. Policy M 1.5 requires development of a transportation network that connects users of all modes to destinations in Gilroy. Policy M 1.6 requires streets and transportation facilities designs that are safe and accessible to people of all abilities, including those with limited mobility. Policy M 1.7 calls for a reduction in vehicle miles traveled and greenhouse gas emissions by developing a transportation network that makes it convenient to use transit, ride a bicycle, walk, or use other non-automobile modes of transportation. Policy M 1.9 encourages street patterns that provide direct access between neighborhoods for automobiles, pedestrians, and bicycles and connections to nearby neighborhood commercial services. Where access is not provided through the design of the street system, easements will be required for pedestrian and bicycle access (e.g., between cul-de-sacs). Policy M 1.10 requires private streets to function similar to public streets. Private streets shall include sidewalks, street trees, and promote connectivity. Policy M 1.12 encourages existing and proposed development to incorporate TDM measures such as car-sharing, transit passes, and unbundling of parking (requiring separate purchase or lease of a parking space) where such measures will result in a reduction in vehicle miles traveled, reduction of required amount of parking or an increase in the use of alternate transportation modes. Policy M 1.13 ensures that new development fully funds the construction of transportation facilities required to meet the city's LOS policy and other required transportation mitigation, including roadways, trails, and transit stops.

Goal M 2: Provide complete streets that balance the diverse needs of users of the public right-of-way.

- M 2.1 Serving All Users
- M 2.2 Complete Street Standards
- M 2.3 Routine Practice
- M 2.4 Context Sensitive Streets
- M 2.5 Complete Street Conversions
- M 2.6 Private Complete Streets
- M 2.7 Safe Street Crossings

Policy M 2.1 requires the provision of safe, consistent, and convenient travel along and across streets to serve all users, including pedestrians, the disabled, bicyclists, motorists, movers of commercial goods, and users and operators of public transportation. Policy M 2.2 requires the adoption, maintenance, and implementation of complete streets standards consistent with the National Association of City Transportation Officials guidelines that are applicable to adjacent land uses and sensitive to nearby neighborhoods. Policy M 2.3 requires continued effort to work towards making complete streets practices (e.g., considering and accommodating all users and all modes within the appropriate context) a routine part of everyday transportation decision-making. Policy M 2.4 requires consideration of the land use and urban design context of adjacent properties in both residential and business districts as well as urban, suburban, and rural areas when designing complete streets. Policy M 2.5 requires identification of streets that could be made more complete by adding bicycle lanes, and/or pedestrian amenities. Such street improvements should be considered for inclusion in the Capital Improvement Plan. Policy M 2.6 encourages large private developments (e.g., office parks, apartment complexes, retail centers) to provide internal complete streets that connect to the existing public roadway system and provide a seamless transition to existing and planned transportation facilities. Policy M 2.7 requires street crossing design to provide for the safety needs of bicyclists and pedestrians. Bridge crossings over creeks and at other locations shall be designed to accommodate bicycle lanes or paths in accordance with the designations set forth in the Bicycle and Pedestrian Transportation Plan. Bridges for the exclusive use of pedestrians and bicycles should be considered whenever barriers exist that impede convenient and safe access.

Goal M 3: Support bicycling and walking by providing a safe and extensive bicycle and pedestrian network.

- M 3.1 Roadway Design
- M 3.2 New Development

- M 3.3 Sidewalk Network Gaps
- M 3.4 Bicycle and Pedestrian Path Network
- M 3.5 Bicycle and Pedestrian Transportation Plan
- M 3.6 Bicycle and Pedestrian Priority
- M 3.7 Pedestrian and Bicycle Facility Design Guidelines
- M 3.8 Bicycle Improvement Design Standards
- M 3.9 Bicycle Parking
- M 3.10 Public Involvement
- M 3.11 Bicycle Parking at City Facilities
- M 3.12 Inter-Regional Bicycle Connectivity
- M 3.13 Road Maintenance and Bicycles
- M 3.14 Safe Routes to School
- M 3.16 Pedestrian Signage
- M 3.17 Traffic Impact Fee for Bicycle/Pedestrian Improvements
- M 3.18 Grant Funding for Facilities and Programs

Policy M 3.1 requires the design of all future roads, bridges, and facilities to accommodate bicycle and pedestrian travel. Policy M 3.2 requires new development to include a system of sidewalks, trails, and bikeways that link all land uses, provide accessibility to parks and schools, and connect to all existing or planned external street and trail facilities in accordance with the Mobility Diagrams. Policy M 3.3 requires filling of gaps in the city's existing sidewalk network as funds become available. New development in the vicinity of such gaps shall contribute to such projects when there is a nexus to do so, as a community benefit, or as an off-setting measure for a transportation impact, such as one identified in a transportation analysis or environmental review process. Policy M 3.4 requires the development and maintenance of a network of paths along linear parks, public easements, drainages, and other open space areas to accommodate bicycle and pedestrian traffic (Figures M-2 and M-3). Policy M 3.5 requires maintenance and implementation of a Bicycle and Pedestrian Transportation Plan and Mobility Diagrams (Figures M-2 and M-3) that guide investment in Gilroy's bicycle and pedestrian networks. These networks should connect residential developments with employment centers, public open spaces, parks, schools, shopping districts, and other major destinations. Policy M 3.6 prioritizes designs that favor pedestrian and bicycle circulation improvements over those for vehicular

circulation on existing or proposed streets that provide opportunities to expand walking and bicycling as viable alternative modes of transportation, particularly on streets identified in Figures M-2 and M-3. Such improvements could include separate bicycle lanes, wider sidewalks, and bicycle/pedestrian-friendly intersection improvements.

Policy M 3.7 requires the development and maintenance of design guidelines for pedestrian and bicycle facilities based on Santa Clara Valley Transportation Authority's Bicycle and Pedestrian Technical Guidelines, Santa Clara Valley Transportation Authority's Community Design and Transportation Program Manual of Best Practices, and the National Association of City Transportation Officials Urban Bikeway Design Guide, when feasible, that result in the construction of pedestrian and bicycle improvements that are attractive, functional, and accessible. Policy M 3.8 calls for use of the Santa Clara Valley Transportation Authority's Bicycle Technical Guidelines and the National Association of City Transportation Officials standards as reference for the design of bike-related improvements.

Policy M 3.9 – Policy M 3.16 address the required provision and maintenance of bicycle facilities and connectivity improvements, through Safe Routes to School and other programs, in addition to coordinating Gilroy's Bicycle and Pedestrian Master plans with the South County Circulation Element, County Trails Master Plan, and other relevant pedestrian and bicycle plans, and with other County Departments. Implementation of these policies and programs would facilitate bicycle use that could result in reduced automobile travel and related mobile-source emissions. Policy M 3.17 calls for support and financing of the construction of pedestrian and bicycle improvements specified in the Mobility Diagrams by using the comprehensive traffic impact fee. Policy M 3.18 calls for identification of regional, State, and Federal funding programs and secure funding for pedestrian and bicycle facilities and programs.

Goal M 4: Plan for efficient and convenient local and regional transit systems that respond to the changing needs of Gilroy.

- M 4.1 Access to Transit
- M 4.2 Transit and Development
- M 4.3 Regional Transit Services
- M 4.4 Shuttle Service
- M 4.5 Private Transportation
- M 4.6 Santa Clara Valley Transportation Authority (VTA)
- M 4.7 Updated Transit Plan
- M 4.8 Consider Transit in Planning and Development Proposals

Policy M 4.1 calls for working with the Santa Clara Valley Transportation Authority to maximize the opportunity for all residents to have access to safe and convenient public transit options. Policy M 4.2 required new development to fully accommodate, enhance, and facilitate public transit, including pedestrian and bicycle access to transit. Policy M 4-3 supports regional transit operations that serve the Gilroy area through coordination of planning efforts and development policies that promote transit use. Policy M 4-4 encourages private entities and transit providers to establish shuttle services to Gilroy's commercial and tourist areas. Support public and private efforts and activities to bridge gaps in existing transit service. Policy M 4-5 encourages privately-owned transit systems, such as taxicabs, "real-time ridersharing" companies, employer shuttles, and private bus companies, to provide additional transit services, particularly to serve special needs populations, including senior citizens and the mobility impaired. These services should connect to VTA and Caltrain transit systems. Policy M 4.6 requires coordinating with Santa Clara Valley Transportation Authority on the planning of new transit routes within Gilroy and maintaining a strong relationship with Santa Clara Valley Transportation Authority management to ensure continued cooperation. Policy M 4.7 requires coordination with Santa Clara Valley Transportation Authority in their evaluation and development of a transit needs and opportunities study to use in the development of a new transit plan. Policy M 4.8 requires coordination with Santa Clara Valley Transportation Authority on advance planning projects and development proposals that may have implications for public transit and consider the Santa Clara Valley Transportation Authority's Transit Sustainability Policy/Service Design Guidelines. These policies are intended to reduce air emissions by promoting transit use and ridesharing.

Goal M 5: Provide a safe and efficient network of streets for cars and trucks, as well as provide vehicle parking to meet the city's needs.

- M 5.2 Safe Travel
- M 5.3 Promote Non-Auto Modes of Transportation
- M 5.5 Intersections
- M 5.6 Road Maintenance
- M 5.7 Traffic Calming
- M 5.10 Capital Improvement Plan
- M 5.11 Parking
- M 5.12 Minimum Parking Standards
- M 5.13 On-Street Parking

Policy M 5.2 requires roadways to allow for the safe travel of all vehicles, pedestrians and bicyclists. Policy M 5.3 encourages consideration of offering incentives as part of a multimodal system approach, for projects that incorporate travel demand management techniques and promote transit ridership, biking, and walking in order to reduce air pollution, energy consumption, and greenhouse gas emissions. Policy M 5.5 requires provisions for the safe travel and efficient movement of all transportation modes at intersections, in part by optimizing existing signal phasing and timing. Policy M 5.6 requires maintenance of roadways to allow for the safe travel of all vehicles, pedestrians, and bicyclists, and emphasizes preventative maintenance to reduce costs associated with roadway replacement. Policy M 5.7 addresses continuing to implement Gilroy's traffic calming measures that discourages speeding and cut-through traffic in neighborhoods. Policy M 5.10 requires the maintenance and implementation of a five-year capital improvement plan that addresses all components of the multi-modal transportation network. Policy M 5.11 calls for maintenance and implementation of a comprehensive on- and off-street parking system that serves the needs of residents and businesses while supporting the use of alternative transportation. Policy 5.12 considers eliminating or reducing minimum parking standards for private vehicles in transit-oriented developments, mixed-use developments and developments in high density areas over time, while increasing parking for shared vehicles, alternative energy vehicles, bicycles, and other alternative modes of transportation. Policy M 5.13 requires consideration of removing or restricting existing on-street parking in areas of critical width in order to facilitate traffic flow and accommodate bicycle lanes if all other appropriate street modifications are determined to be infeasible. These policies are intended to reduce emissions from private automobiles.

Goal M 7: Maintain and increase cooperation between Gilroy and neighboring jurisdictions, regional organizations, and relevant State agencies.

- M 7.2 County Coordination
- M 7.3 Bridge Crossings
- M 7.4 Intercity Rail
- M 7.5 Intercity Transit
- M 7.6 Expanded Caltrain Service
- M 7.7 High-Speed Rail Coordination

Policies M 7.2 – M 7.7 require coordination with local and state agencies to develop transportation facilities and increased transit opportunities within the Gilroy 2040 General Plan Planning Area/Sphere of Influence. Policy M 7.2 calls for working with Santa Clara County on the development of transportation facilities within the Gilroy 2040 General Plan Planning Area/Sphere of Influence but within the jurisdiction of the County, including trails

and bicycle paths in the County Trails Master Plan. Policy M 7.3 calls for working with Caltrans and Valley Water (previously Santa Clara Valley Water District) to provide bicycle and pedestrian bridge crossings across the South Valley Freeway (U.S. Highway 101) and Valley Water drainage facilities. Policy M 7.4 requires coordination with Amtrak, Caltrain, Transportation Agency for Monterey County (TAMC), San Benito Express, and Capital Corridor Joint Powers Authority to plan for new intercity rail service to San Benito and Monterey counties. Policy M 7.5 requires coordination with the Santa Clara Valley Transportation Authority, TAMC, San Benito Express, and the Capital Corridor Joint Powers Authority to explore future opportunities for new transit services to northern Santa Clara County and the rest of the Bay Area. Policy M 7.6 requires coordination with Caltrain to add additional off-peak service to Gilroy and to increase service in the reverse commute direction. Policy M 7.7 requires support of State and regional efforts to bring a high-speed rail station to Gilroy, and calls for development of plans and programs to accommodate high-speed rail.

The Public Facilities and Services Element contains the following goals and policies that conform to the 2017 Clean Air Plan control measures.

Goal PFS 2: Operate public facilities and services in a sustainable manner that uses public revenues and resources efficiently

- PFS 2.3 Sustainable Practices
- PFS 2.4 Alternative Energy Sources
- PFS 2.5 Energy Efficient Buildings and Infrastructure
- PFS 2.6. Leadership in Energy and Environmental Design (LEED)

Policy 2.3 calls for minimization of waste generation and maximization of recycling programs, energy efficiency and conservation, and environmental practices that reduce water, electricity and natural gas use, and vehicle fuel consumption. Policy PFS 2.4 requires the use of alternative energy sources in new services provided by city franchisees, whenever practicable. These policies would reduce emissions that affect air quality. PFS 2.5 requires continued improvements in energy efficiency of existing city buildings and infrastructure through efficiency improvements, equipment upgrades, and installation of clean, renewable energy systems. Policy PFS 2.6 sets a performance objective to achieve the highest practicable LEED classification for all new public buildings.

Goal PFS 7: Construct and maintain roadways that serve all users

- PFS 7.1 Road Maintenance
- PFS 7.2 Sidewalk Maintenance
- PFS 7.3 Sidewalk Network

Policies PFS 7.1 and PFS 7.2 call for maintenance of roadways and sidewalks to allow for the safe travel of all vehicles, pedestrians, and bicyclists. Policy PFS 7.3 requires the construction of new sidewalks to fill in gaps in the existing sidewalk network, as funding allows.

Goal PFS 8: Provide for the current and future energy and telecommunications needs of Gilroy

- PFS 8.4 Energy Conservation

Policy PFS 8.4 calls for reduced energy consumption by encouraging the use of green building technologies, supporting the use of alternative energy sources, and disseminating public information regarding energy conservation techniques.

The Natural and Cultural Resources Element contains the following goals and policies that conform to the 2017 Clean Air Plan control measures.

Goal NCR 3: Contribute to improvements in regional air quality and reductions in greenhouse gas emissions.

- NCR 3.1 Energy Use Data and Analysis
- NCR 3.2 Retrofit Financing
- NCR 3.3 Shade Tree Program
- NCR 3.4 Solar Development
- NCR 3.6 Bicycle Infrastructure Expansion
- NCR 3.7 Transportation Demand Management
- NCR 3.8 Community-Wide Alternative Fuel Vehicles
- NCR 3.11 Urban Forest

Policy NCR 3.1 calls for increasing building owner, tenant, and operator knowledge about how, when, and where building energy is used. Policy NCR 3.2 promotes existing and supports development of new private financing options for building retrofits and renewable energy development. Policy NCR 3.3 calls for increasing community-wide use of shade trees to decrease energy use associated with building cooling. Policy NCR 3.4 encourages voluntary community-wide solar photovoltaic development through regulatory barrier reduction and public outreach campaigns. Policy NCR 3.6 encourages alternative modes of transportation, including bicycling, through expansion of bicycle paths, lanes, and routes within the community. Policy NCR 3.7 calls for providing informational resources to local businesses subject to SB 1339 transportation demand management program requirements and encourages additional voluntary participation in the program. Policy NCR 3.8 encourages community-wide use of alternative fuel vehicles through expansion of alternative vehicle refueling infrastructure. Policy NCR 3.11 supports development and maintenance of a healthy, vibrant urban forest.

The Economic Prosperity Element includes the following policies that contribute to general plan conformance to the 2017 Clean Air Plan control measures.

- EP 8.2 Jobs to Employed Resident Ratio
- EP 8.5 Enhanced Community

Policy EP 8.2 seeks to improve the city's jobs to employed resident ratio through land use management, in part to support Gilroy's fiscal health. Policy EP 8.5 seeks to provide high-quality neighborhoods, diverse housing options, a walkable/bikeable public street and trail network. This policy also includes providing, in designated areas, compact, mixed-use development to enhance Gilroy's livability, attractiveness, and high quality of life; to promote interaction among community members, as well as attracting talented workers to Gilroy.

Consistency with Clean Air Plan

Support Clean Air Plan Primary Goals. The primary goals of the 2017 Clean Air Plan are to attain air quality standards, to reduce population exposure to pollutants and protect public health in the Bay Area, and to reduce greenhouse gas (hereinafter "GHG") emissions and protect the climate. This is considered to have been accomplished if the general plan includes policies or programs that address the 2017 Clean Air Plan control measures.

Clean Air Plan Control Measures. There are 85 control measures in the 2017 Clean Air Plan, many of which are applicable only for industrial or regional implementation, and do not apply to local land use planning. Several control measures (summarized earlier in the Policy and Regulatory Issues section) are potentially applicable to the Gilroy 2040 General Plan policies and the types of land uses included on the land use map (refer to Figure 2.2-1). The air district's CEQA Guidelines state that a general plan must implement all feasible control measures. Consistency with each of the applicable control measures is discussed below, based in part, on the implementation expectations stated in the Clean Air Plan (Bay Area Air Quality Management District 2017a). Gilroy 2040 General Plan policies that address feasible control measures are listed in Table 3.3-7, Policy Response to Clean Air Plan Control Measures.

Allow Implementation of Clean Air Plan Control Measures. The Gilroy 2040 General Plan policies promote compact mixed-use development and promotion of alternative transportation, which are consistent with, and do not interfere with implementation of the 2017 Clean Air Plan control measures.

Implementation of these Gilroy 2040 General Plan policies and implementation programs would be consistent with the applicable 2017 Clean Air Plan control measures, with the exception of TR22: Construction, Freight and Farming Equipment. There are no Gilroy 2040 General Plan policies and implementation programs that address this 2017 Clean Air Plan control measure. Therefore, the proposed project would be inconsistent with the 2017 Clean Air Plan, resulting in a significant air quality impact.

Table 3.3-7 Policy Response to Clean Air Plan Control Measures

Control Measure	Gilroy 2040 General Plan Policies
TR14: Cars & Light Trucks	NCR 3.8 promotes alternative-fueled vehicles, consistent with control measure TR14.
TR19: Medium- and Heavy-Duty Trucks	NCR 3.8 promotes alternative-fueled vehicles, consistent with control measure TR14.
TR3: Local and Regional Bus Service	LU 5.4, LU 7.7, LU 7.8, M 1.1, M 1.7, M 4.1, M 4.2, M 4.3, M 4.5, M 4.6, M 4.7, M 4.8, M 7.4, M 7.6, and M 7.7 promote or facilitate bus and other local and regional transit, consistent with this control measure.
TR6: Freeway and Arterial Operations	LU 4.7, M 1.2, M 1.13, M 5.5, and M 5.15 are intended to improve the performance and efficiency of the city's arterial and collector streets through operational improvements.
TR5: Transit Efficiency and Use	LU 5.4, LU 7.7, LU 7.8, M 1.1, M 1.7, M. 1.12, M 1.13, M 4.1, M 4.2, M 4.3, M 4.5, M 4.6, M 4.7, M 4.8, M 5.3, M 7.4, M 7.6, and M 7.7 promote the facilitation and use of transit
TR22: Construction, Freight and Farming Equipment	There are no 2040 General Plan policies to promote low emissions construction equipment.
TR2: Trip Reduction Programs	M 1.12, M 5.3, and NCR 3.7 promote trip reduction programs and transportation demand management.
TR7: Safe Routes to Schools and Transit	M 1.6, M 2.1, M 2.7, M 3.14, M 4.2, and M 5.2 address safety for pedestrians and bicyclists and safe routes to schools.
TR8: Ridesharing and Last-Mile Connections	M 1.12, M 4.6, and NCR 3.7 address ride sharing and other transportation demand measures.
TR15: Public Outreach	M 3.10, PF-5.3, NCR 3.1, NCR 3.4, and PH 1.12 encourage the city to educate and inform residents about strategies that would reduce air emissions.
TR9: Bicycle and Pedestrian Access and Facilities	LU 4.7, LU 5.4, LU 8.10, M 1.1, M 1.2, M 1.7, M 1.9, M 1.13, M 2.2, M 2.5, M 2.7, M 3.1, M 3.2, M 3.4, M 3.5, M 3.6, M 3.7, M 3.8, M 3.9, M 3.10, M 3.11, M 3.12, M 3.13, M 3.14, M 3.17, M 3.18, M 5.2, M 5.3, M 5.6, M 5.7, M 5.13, M 7.2, EP 8.5, and NCR 3.7 address the provision of bicycle facilities and the facilitation or promotion of bicycling.
TR10: Land Use Strategies	LU 1.1, LU 1.4, LU 3.2, LU 3.3, LU 3.5, LU 7.1, LU 7.4, LU 7.7, LU 7.8, LU 8.10, M 1.7, M 1.9, M 3.2, M 5.12, EP 8.2, and EP 8.5 directly address land use strategies that would result in reduced air emissions. Other 2040 General Plan policies address related traffic issues, or more generally relate to land use strategies.
TR13: Parking Policies	M 5.11, M 5.12, and M 5.13 address parking strategies that would promote use of alternative transportation modes.
TR18: Goods Movement	M 1.1, M 6.1, and M 6.4 establish truck routes within the city for efficient movement of goods while minimizing impacts on residents
EN2: Decrease Energy Use	PFS 2.3, PFS 2.5, PFS 2.6, PFS 8.4, NCR 3.1, NCR 3.2, NCR 3.3, and NCR 3.14 address energy efficiency in new or existing buildings:
EN1: Decarbonize Electricity Generation	PFS 2.5, PFS 2.6, PFS 8.4, NCR 3.2, and NCR 3.4 promote the installation and use of alternative energy sources for buildings.
BL4: Urban Heat Island Mitigation	M 5.12, NCR 1.11, NCR-3.3, NCR 3.14, PFS 3.2, PFS 2.4, PFS 2.5, and PFS 2.6 directly or indirectly address the reduction of urban heat island effects.
NW2: Urban Tree Planting	NCR 1.11 and NCR-3.3 encourage planning of street trees and establishment of an urban forest.

Source: Bay Area Air Quality Management District 2017b, City of Gilroy 2015, EMC Planning Group

With implementation of the following mitigation measure, in addition to the 2040 General Plan policies listed in this section, consistency with the 2017 Clean Air Plan would be achieved and the impact would be less than significant.

Mitigation Measure

AQ-1. Add the following new policy to the Gilroy 2040 General Plan Natural and Cultural Resources element:

> **Reduce Construction Emissions.** Require the use of low emissions construction equipment for public and private projects, consistent with the air district 2017 Clean Air Plan.

2012 Particulate Matter Plan

As discussed in the Regulatory Setting above, the air basin does not meet the state ambient air quality standards for particulate matter. The air district's *Understanding Particulate Matter: Protecting Public Health in the San Francisco Bay Area* dated November 2012 ("2012 PM plan") provides technical information about how PM is emitted and formed in the Bay Area, describes progress in reducing PM levels in the Bay Area, summarizes regulations and programs to reduce PM emissions and concentrations, identifies future technical work needed to improve the air district's understanding of PM, and explains the importance of continuing and enhancing the air district's efforts to reduce PM in order to protect public health, the climate, and the environment. However, the PM plan does not address particulate matter from construction activities. Guidance on mitigating criteria air pollutants generated during construction is included in the air district's 2017 CEQA Guidelines.

Implementation of the City of Gilroy 2040 General Plan would result in particulate matter emissions during construction, thereby contributing to the exceedance of particulate standards. As a result, the proposed general plan would be inconsistent with the 2012 PM Plan. With implementation of the following mitigation measure, consistency with the 2012 PM plan would be achieved and the impact would be less than significant.

Mitigation Measure

AQ-2. Add the following new policy to the Gilroy 2040 General Plan Natural and Cultural Resources element:

> **Implement Dust-Control Measures.** Require the implementation of the air district's dust control measures during construction of individual projects, consistent with the air district 2017 Clean Air Plan.

Conclusion

Implementation of the Gilroy 2040 General Plan goals and policies, in addition to Mitigation Measures AQ-1 and AQ-2, would reduce potentially significant impacts due to inconsistency with the air district's 2017 Clean Air Plan to a less-than-significant level, and ensure the 2040 General Plan is consistent with the 2017 Clean Air Plan.

IMPACT	Increase in Operational Criteria Air Pollutant Emissions Resulting from an Increase in Vehicle Miles Traveled Will Degrade Air Quality	Significant and Unavoidable

Air District Methodology.

The air district's analysis methodology was used as the basis in determining significance of criteria air pollutants. For general plans, the air district does not recommend determinations based on criteria air pollutant emission modeling. Modeling for this type of project will invariably result in very high emissions numbers simply because of the magnitude of the project's size. The air district indicates that if a plan's increase in projected vehicle miles traveled (VMT) or vehicle trips (either measure may be used) is less than or equal to its projected population increase, a plan would have a less-than-significant air quality impact.

This EIR utilizes VMT as a general proxy for operational emissions to determine air quality impacts. If the percentage increase in VMT at buildout of the Gilroy 2040 General Plan is less than or equal to the percentage increase in population at buildout of the Gilroy 2040 General Plan, the proposed project would result in a less-than-significant air quality impact. Conversely, if the percentage increase in VMT at buildout of the Gilroy 2040 General Plan exceeds the percentage increase in population at buildout of the Gilroy 2040 General Plan, the proposed project would result in a significant air quality impact.

Appendix A of the transportation analysis prepared for the Gilroy 2040 General Plan included a comparison of daily VMT for existing 2017 conditions and 2040 buildout conditions to determine the effects of growth projections on travel patterns within the city.

The Gilroy 2040 General Plan's potential increases in VMT and population under buildout conditions is summarized in Table 3.3-8, Gilroy 2040 General Plan VMT and Population Increase.

Table 3.3-8 Gilroy 2040 General Plan VMT and Population Increase

Year	Citywide Daily VMT[1]	Population
2017	1,440,164	55,160[2]
2040	2,446,223	75,684[3]
Percent Increase	69.8%	37.2%

Source: Hexagon Transportation Consultants 2020, California Department of Finance 2019, Mintier Harnish 2020.

Notes:

1. Citywide daily VMT estimates are obtained from the *City of Gilroy 2040 General Plan Transportation Analysis* prepared by Hexagon Transportation Consultants.
2. According to the California Department of Finance, the City of Gilroy's population in 2017 was 55,150.
3. Population estimate in 2040 is obtained from Table 2.2-2 in Section 2.0, Project Description.

As shown in Table 3.3-8, the percentage increase in VMT at buildout of the Gilroy 2040 General Plan would exceed the percentage increase in population at buildout of the Gilroy 2040 General Plan. Therefore, the increase in VMT associated with buildout of the Gilroy 2040 General Plan would result in a significant air quality impact.

Gilroy 2040 General Plan

The Land Use Element includes the following goals and policies that would reduce VMT and associated criteria air emissions.

Goal LU 1: Protect and enhance Gilroy's quality of life and unique identity while continuing to grow and change.

- LU 1.1 Pattern of Development
- LU 1.2 Residential Growth
- LU 1.4 Mix of Uses
- LU 1.11 Contiguous Development

Policy LU 1.1 ensures an orderly, contiguous pattern of development that prioritizes infill development, phases new development, and encourages compactness and efficiency, in order to promote alternative transportation modes, and reduce vehicle miles traveled. Policy LU 1.2 encourages new residential development to locate within the existing Urban Service Area prior to considering expansion of the Urban Service Area, to encourage compact development that would reduce vehicle miles traveled. Policy LU 1.4 encourages, through the Land Use Diagram, a diverse mix of land uses to achieve a balance between jobs and housing, to ensure the community's long-term viability, and to increase job opportunities in the city to assist in equalizing the jobs/housing balance, encourage the provision of a range of housing types, mixed-use districts, a diversity of businesses and industries, and adequate services and leisure activities to meet the social and economic needs of residents. These measures are intended to reduce longer trips of destinations outside Gilroy. Policy LU 1.11 discourages development that is not contiguous with existing urban development, again reducing trip lengths. These policies are reflected in the land use map upon which the VMT modeling is based.

Goal LU 3: Provide a variety of housing types that offer choices for Gilroy residents and create complete, livable neighborhoods.

- LU 3.2 Connectivity
- LU 3.3 Residential Building Orientation
- LU 3.5 Neighborhood Infill

Policy LU 3.2 encourages new residential development to incorporate design features that promote walking and connectivity between blocks. Policy LU 3.3 encourages new

residential development to orient buildings toward streets or public spaces to actively engage the community and provide complete neighborhoods. Policy LU 3.5 encourages infill developments that enhance neighborhood quality and respond to community input in the planning and design of infill projects or non-residential, neighborhood-serving uses. These policies are intended to make walking more feasible and reduce vehicle trips and VMT.

Goal LU 4: Encourage the growth and development of retail, office, service, and entertainment uses in Gilroy to provide jobs, support city services, and make Gilroy an attractive place to live.

- LU 4.7 Existing Strip Commercial Uses Connectivity
- LU 4.9 Pedestrian Access
- LU 4.10 Outdoor Activities

Policy LU 4.7 encourages multi-modal connectivity between strip commercial uses. Policy LU 4.9 requires convenient and direct pedestrian connections between residential areas and commercial uses. Policy LU 4.10 encourages outdoor cafes and other outdoor activities in appropriate commercial areas and the Downtown.

Goal LU 5: Encourage, facilitate, and support the development of new employment and industrial uses and retention of existing industry to ensure compatibility with existing surrounding uses and planned uses.

- LU 5.4 Connectivity within Industrial Areas

Policy LU 5.4 encourages greater automobile, bicycle, pedestrian, and transit connections within industrial areas. These policies are intended to make walking more feasible and reduce vehicle trips and VMT.

Goal LU 7: Encourage mixed-use development projects that create vibrant, walkable districts.

- LU 7.1 Mixed-Use Districts
- LU 7.4 Work/Live
- LU 7.7 Priority Development Areas (PDAs)
- LU 7.8 Transit-Oriented Development

Policy LU 7.1 encourages mixed-use development within the Downtown and in the First Street Mixed-Use District. This development pattern should create vibrant, walkable areas, in contrast to strip retail developments along corridors. Policy LU 7.4 encourages mixed-uses in appropriate non-residential or existing mixed-use areas, facilitates the adaptive reuse of otherwise obsolete structures and promotes the growth of the arts in the

community. This policy includes guidance for integrated living/working environments and calls for a discretionary review process in certain instances. Policy LU 7.7 requires the identification of areas near transit suitable for infill development and requires application for their official designation as PDAs by the Association of Bay Area Governments and the Metropolitan Transportation Commission. Policy LU 7.8 encourages higher-density residential uses and mixed-use developments in proximity to transit services including the Caltrain station and multi-modal transit center. These policies promote residential uses near jobs, services, and transit and are intended to make walking and transit use more feasible and reduce vehicle trips and VMT.

Goal LU 8: Support growth and development that preserves and strengthens the city's historic, small-town character; provides and maintains safe, livable, and affordable neighborhoods; and creates beautiful places.

- LU 8.10 Eliminate Large Blocks

Policy LU 8.10 encourages the insertion of new streets or pedestrian ways in large "super blocks" that do not have public streets bisecting them to enhance pedestrian and bicycle circulation and access to these areas, and encourages new developments to eliminate large blocks.

Goal LU 9: Encourage the growth and revitalization of Downtown to create a vibrant, high quality place for residents, businesses, and visitors.

- LU 9.1 Downtown Pedestrian Improvements

Policy LU 9.1 requires working with public and private entities to develop and maintain design improvements to create a safe, convenient, and pleasant pedestrian environment that supports the continued revitalization of the Downtown area. Improvements could include pedestrian-oriented amenities such as lighting, wider sidewalks, clearly marked pedestrian crossings, benches, landscaping, signage, sidewalk seating areas, and public art. These policies are intended to make walking and bicycling more feasible and reduce vehicle trips and VMT.

The Mobility Element contains the following goals and policies that promote walking, bicycling, and transit use as alternatives to private automobiles.

Goal M 1: Provide for a safe and efficient transportation system that serves all users.

- M 1.1 Transportation Network
- M 1.2 Street Network Hierarchy
- M 1.3 NACTO Classification System
- M 1.5 Transportation Network Connectivity

- M 1.6 Street Safety and Accessibility
- M 1.7 Reduce Vehicle Miles Traveled
- M 1.8 Street Landscaping
- M 1.9 Interconnected Residential Streets
- M 1.10 Private Streets
- M 1.12 Transportation Demand Management
- M 1.13 Transportation Funding

These policies and programs call for an efficient, consistently-designed, and safe transportation network that emphasizes connectivity and reduces VMT. Policy M 1.1 calls for development of a coordinated transportation network consistent with the Mobility Diagrams. Policy M 1.2 calls for the provision of a transportation network that has a hierarchy of arterial, collector, and local streets to efficiently move bicycle, pedestrian, and vehicular traffic. Policy M 1.3 requires consideration of the application of context-sensitive roadway classification system used by the National Association of City Transportation Officials. Policy M 1.5 requires development of a transportation network that connects users of all modes to destinations in Gilroy. Policy M 1.6 requires streets and transportation facilities designs that are safe and accessible to people of all abilities, including those with limited mobility. Policy M 1.7 calls for a reduction in VMT by developing a transportation network that makes it convenient to use transit, ride a bicycle, walk, or use other non-automobile modes of transportation. Policy M 1.8 requires landscaping as a part of all new street design to encourage walking. Policy M 1.9 encourages street patterns that provide direct access between neighborhoods for automobiles, pedestrians, and bicycles and connections to nearby neighborhood commercial services. Where access is not provided through the design of the street system, easements will be required for pedestrian and bicycle access (e.g., between culs-de-sac). Policy M 1.10 requires private streets to function similar to public streets. Private streets shall include sidewalks, street trees, and promote connectivity. Policy M 1.12 encourages existing and proposed development to incorporate transportation demand management measures such as car-sharing, transit passes, and unbundling of parking (requiring separate purchase or lease of a parking space) where such measures will result in a reduction in VMT, reduction of required amount of parking or an increase in the use of alternate transportation modes. Policy M 1.13 ensures that new development fully funds the construction of transportation facilities required to meet the city's LOS policy and other required transportation mitigation, including roadways, trails, and transit stops.

Goal M 2: Provide complete streets that balance the diverse needs of users of the public right-of-way.

- M 2.1 Serving All Users
- M 2.2 Complete Street Standards
- M 2.3 Routine Practice
- M 2.4 Context Sensitive Streets
- M 2.5 Complete Street Conversions
- M 2.6 Private Complete Streets
- M 2.7 Safe Street Crossings

Policy M 2.1 requires the provision of safe, consistent, and convenient travel along and across streets to serve all users, including pedestrians, the disabled, bicyclists, motorists, movers of commercial goods, and users and operators of public transportation. Policy M 2.2 requires the adoption, maintenance, and implementation of complete streets standards consistent with the National Association of City Transportation Officials guidelines that are applicable to adjacent land uses and sensitive to nearby neighborhoods. Policy M 2.3 requires continued effort to work towards making complete streets practices (e.g., considering and accommodating all users and all modes within the appropriate context) a routine part of everyday transportation decision-making. Policy M 2.4 requires consideration of the land use and urban design context of adjacent properties in both residential and business districts as well as urban, suburban, and rural areas when designing complete streets. Policy M 2.5 requires identification of streets that could be made more complete by adding bicycle lanes, and/or pedestrian amenities. Such street improvements should be considered for inclusion in the Capital Improvement Plan. Policy M 2.6 encourages large private developments (e.g., office parks, apartment complexes, retail centers) to provide internal complete streets that connect to the existing public roadway system and provide a seamless transition to existing and planned transportation facilities. Policy M 2.7 requires street crossing design to provide for the safety needs of bicyclists and pedestrians. Bridge crossings over creeks and at other locations shall be designed to accommodate bicycle lanes or paths in accordance with the designations set forth in the Bicycle and Pedestrian Transportation Plan. Bridges for the exclusive use of pedestrians and bicycles should be considered whenever barriers exist that impede convenient and safe access. These policies are intended to promote alternative transportation modes and reduce VMT.

Goal M 3: Support bicycling and walking by providing a safe and extensive bicycle and pedestrian network.

- M 3.1 Roadway Design
- M 3.2 New Development

- M 3.3 Sidewalk Network Gaps
- M 3.4 Bicycle and Pedestrian Path Network
- M 3.5 Bicycle and Pedestrian Transportation Plan
- M 3.6 Bicycle and Pedestrian Priority
- M 3.7 Pedestrian and Bicycle Facility Design Guidelines
- M 3.8 Bicycle Improvement Design Standards
- M 3.9 Bicycle Parking
- M 3.10 Public Involvement
- M 3.11 Bicycle Parking at City Facilities
- M 3.12 Inter-Regional Bicycle Connectivity
- M 3.13 Road Maintenance and Bicycles
- M 3.14 Safe Routes to School
- M 3.16 Pedestrian Signage
- M 3.17 Traffic Impact Fee for Bicycle/Pedestrian Improvements
- M 3.18 Grant Funding for Facilities and Programs

Policy M 3.1 requires the design of all future roads, bridges, and facilities to accommodate bicycle and pedestrian travel. Policy M 3.2 requires new development to include a system of sidewalks, trails, and bikeways that link all land uses, provide accessibility to parks and schools, and connect to all existing or planned external street and trail facilities in accordance with the Mobility Diagrams. Policy M 3.3 requires filling of gaps in the city's existing sidewalk network as funds become available. Policy M 3.4 requires the development and maintenance of a network of paths along linear parks, public easements, drainages, and other open space areas to accommodate bicycle and pedestrian traffic (Figures M-2 and M-3). Policy M 3.5 requires maintenance and implementation of a Bicycle and Pedestrian Transportation Plan and Mobility Diagrams (Figures M-2 and M-3) that guide investment in Gilroy's bicycle and pedestrian networks. These networks should connect residential developments with employment centers, public open spaces, parks, schools, shopping districts, and other major destinations. Policy M 3.6 prioritizes designs that favor pedestrian and bicycle circulation improvements over those for vehicular circulation on existing or proposed streets that provide opportunities to expand walking and bicycling as viable alternative modes of transportation, particularly on streets identified in Figures M-2 and M-3. Such improvements could include separate bicycle lanes, wider sidewalks, and bicycle/pedestrian-friendly intersection improvements. These policies are intended to promote alternative transportation modes and reduce VMT.

Policy M 3.7 requires the development and maintenance of design guidelines for pedestrian and bicycle facilities based on Santa Clara Valley Transportation Authority's Bicycle and Pedestrian Technical Guidelines, Santa Clara Valley Transportation Authority's Community Design and Transportation Program Manual of Best Practices, and the National Association of City Transportation Officials Urban Bikeway Design Guide, when feasible, that result in the construction of pedestrian and bicycle improvements that are attractive, functional, and accessible. Policy M 3.8 calls for use of the Santa Clara Valley Transportation Authority's Bicycle Technical Guidelines and the National Association of City Transportation Officials standards as reference for the design of bike-related improvements. Policy M 3.9 requires adequate short- and long-term bicycle parking for all land uses except for single-family residential uses. Policy M 3.10 promotes bicycling and walking in the community as a means of transportation and exercise through educational programs and outreach campaigns. Policy M 3.11 requires the provision of bicycle parking at all city parks and public facilities (e.g., City Hall) sufficient to accommodate anticipated demand. Policy M 3.12 requires support of Santa Clara County Parks Department, Santa Clara County Roads and Airports Department, and Caltrans in their efforts to develop regional bike lanes, routes, and trails, particularly as they provide inter-regional connectivity between Gilroy and its neighbors. Promote connectivity between city, county, and state bicycle improvements by coordinating the Gilroy's Bicycle and Pedestrian Master Plan with the South County Circulation Element, County Trails Master Plan, and other relevant pedestrian and bicycle plans. Policy M 3.13 requires maintenance and improvements of the quality of the surface of the right-hand portion of existing roads as well as the travel lanes so that they are suitable for bicycle travel, regardless of whether or not bikeways are designated. Policy M 3.14 encourages the construction of facilities and provision of programs so that Gilroy children can walk or bicycle to school safely through coordination with school administration and parent organizations and participation in State and Federal grant programs. Policy M 3.16 calls for exploration of development of a program, possibly as part of the city's existing wayfinding program, to allow permanent or temporary signage that encourages walking in pedestrian-oriented areas, particularly Downtown. Policy M 3.17 calls for support and financing of the construction of pedestrian and bicycle improvements specified in the Mobility Diagrams by using the comprehensive traffic impact fee. Policy M 3.18 calls for identification of regional, State, and Federal funding programs and for the city to secure funding for pedestrian and bicycle facilities and programs. These policies are intended to promote alternative transportation modes and reduce VMT.

Goal M 4: Plan for efficient and convenient local and regional transit systems that respond to the changing needs of Gilroy.

- M 4.1 Access to Transit
- M 4.2 Transit and Development
- M 4.3 Regional Transit Services

- M 4.4 Shuttle Service
- M 4.5 Private Transportation
- M 4.6 Santa Clara Valley Transportation Authority (VTA)
- M 4.7 Updated Transit Plan
- M 4.8 Consider Transit in Planning and Development Proposals

Policy M 4.1 calls for working with the Santa Clara Valley Transportation Authority to maximize the opportunity for all residents to have access to safe and convenient public transit options. Policy M 4.2 requires new development to fully accommodate, enhance, and facilitate public transit, including pedestrian and bicycle access to transit. Policy M 4.3 calls for the support of regional transit operations that serve the Gilroy area through coordination of planning efforts and development policies that promote transit use. Policy 4.4 encourages private entities and transit providers to establish shuttle services to Gilroy's commercial and tourist areas. Support public and private efforts and activities to bridge gaps in existing transit service. Policy M 4.5 encourages privately-owned transit systems, such as taxicabs, "real-time ridesharing" companies, employer shuttles, and private bus companies, to provide additional transit services, particularly to serve special needs populations, including senior citizens and the mobility impaired. These services should connect to Santa Clara Valley Transportation Authority and Caltrain transit systems. Policy M 4.6 requires coordination with Santa Clara Valley Transportation Authority on the planning of new transit routes within Gilroy and to maintain a strong relationship with Santa Clara Valley Transportation Authority management to ensure continued cooperation. Policy M 4.7 requires coordination with Santa Clara Valley Transportation Authority in their evaluation and development of a transit needs and opportunities study to use in the development of a new transit plan. Policy M 4.8 requires coordination with Santa Clara Valley Transportation Authority on advance planning projects and development proposals that may have implications for public transit and consider the Santa Clara Valley Transportation Authority's Transit Sustainability Policy/Service Design Guidelines. These policies are intended to promote transit use and ridesharing and reduce VMT.

Goal M 5: Provide a safe and efficient network of streets for cars and trucks, as well as provide vehicle parking to meet the city's needs.

- M 5.2 Safe Travel
- M 5.3 Promote Non-Auto Modes of Transportation
- M 5.5 Intersections
- M 5.6 Road Maintenance
- M 5.7 Traffic Calming

- M 5.10 Capital Improvement Plan
- M 5.11 Parking
- M 5.12 Minimum Parking Standards
- M 5.13 On-Street Parking

Policy M 5.2 requires roadways to allow for the safe travel of all vehicles, pedestrians, and bicyclists. Policy M 5.3 requires consideration of offering incentives as part of a multimodal system approach, for projects that incorporate travel demand management techniques and promote transit ridership, biking, and walking. Policy M 5.5 requires provisions for the safe travel and efficient movement of all transportation modes at intersections, in part by optimizing existing signal phasing and timing. Policy M 5.6 requires maintenance of roadways to allow for the safe travel of all vehicles, pedestrians, and bicyclists. Policy M 5.7 calls for the preparation and adoption of a traffic calming policy that discourages speeding and cut-through traffic in neighborhoods. The adopted policy should establish thresholds, list acceptable traffic calming measures, and outline an implementation process for new and existing neighborhoods, making walking and bicycling within neighborhoods more pleasant. Policy M 5.10 requires the maintenance and implementation of a five-year capital improvement plan that addresses all components of the multi-modal transportation network. Policy M 5.11 calls for maintenance and implementation of a comprehensive on- and off-street parking system that serves the needs of residents and businesses while supporting the use of alternative transportation. Policy 5.12 considers eliminating or reducing minimum parking standards for private vehicles in transit-oriented developments, mixed-use developments and developments in high density areas over time, while increasing parking for shared vehicles, alternative energy vehicles, bicycles, and other alternative modes of transportation. Policy M 5.13 requires consideration of removing or restricting existing on-street parking in areas of critical width in order to facilitate traffic flow and accommodate bicycle lanes if all other appropriate street modifications are determined to be infeasible.

Goal M 7: Maintain and increase cooperation between Gilroy and neighboring jurisdictions, regional organizations, and relevant State agencies.

- M 7.2 County Coordination
- M 7.3 Bridge Crossings
- M 7.4 Intercity Rail
- M 7.5 Intercity Transit
- M 7.6 Expanded Caltrain Service
- M 7.7 High-Speed Rail Coordination

Policies M 7.2 through M 7.7 require coordination with local and state agencies to develop transportation facilities and increased transit opportunities within the Gilroy 2040 General Plan Planning Area/Sphere of Influence. Policy M 7.2 calls for working with Santa Clara County on the development of transportation facilities within the Gilroy 2040 General Plan Planning Area/Sphere of Influence but within the jurisdiction of the County, including trails and bicycle paths in the County Trails Master Plan. Policy M 7.3 calls for working with Caltrans and Valley Water to provide bicycle and pedestrian bridge crossings across U.S. Highway 101 and Valley Water drainage facilities. Policy M 7.4 requires coordination with Amtrak, Caltrain, Transportation Agency for Monterey County (TAMC), San Benito Express, and Capital Corridor Joint Powers Authority to plan for new intercity rail service to San Benito and Monterey counties. Policy M 7.5 requires coordination with the Santa Clara Valley Transportation Authority, TAMC, San Benito Express, and Capital Corridor Joint Powers Authority to explore future opportunities for new transit services to northern Santa Clara County and the rest of the Bay Area. Policy M 7.6 requires coordination with Caltrain to add additional off-peak service to Gilroy and to increase service in the reverse commute direction. Policy M 7.7 requires support of State and regional efforts to bring a high-speed rail station to Gilroy, and calls for development of plans and programs to accommodate high-speed rail.

The Public Facilities and Services Element contains the following goals and policies that promote walking, bicycling, and transit use as alternatives to private automobiles.

Goal PFS 7: Construct and maintain roadways that serve all users.

- PFS 7.1 Road Maintenance
- PFS 7.2 Sidewalk Maintenance
- PFS 7.3 Sidewalk Network

Policies PFS 7.1 and PFS 7.2 call for maintenance of roadways and sidewalks to allow for the safe travel of all vehicles, pedestrians, and bicyclists. Policy PFS 7.3 requires the construction of new sidewalks to fill in gaps in the existing sidewalk network, as funding allows.

The Natural and Cultural Resources Element contains the following goals and policies that that promote walking, bicycling, and transit use as alternatives to private automobiles.

Goal NCR 3: Contribute to improvements in regional air quality and reductions in greenhouse gas emissions.

- NCR 3.6 Bicycle Infrastructure Expansion
- NCR 3.7 Transportation Demand Management
- NCR 3.8 Community-Wide Alternative Fuel Vehicles

Policy NCR 3.6 encourages alternative modes of transportation, including bicycling, through expansion of bicycle paths, lanes, and routes within the community. Policy NCR 3.7 calls for provision of informational resources to local businesses subject to SB 1339 transportation demand management program requirements and encourages additional voluntary participation in the program. Policy NCR 3.8 encourages community-wide use of alternative fuel vehicles through expansion of alternative vehicle refueling infrastructure.

Conclusion

Buildout of the Gilroy 2040 General Plan would result in a significant impact on criteria air pollutants resulting from the increase in VMT. Although the Gilroy 2040 General Plan includes numerous policies that are intended to reduce VMT, it is not possible to accurately quantify the VMT reductions that would result, and therefore, there is no assurance that VMT could be reduced by the required 32.6 percent that would reduce the impact to a less-than-significant level. Therefore, the impact is assumed to remain significant and unavoidable.

IMPACT	Adverse Effects to Sensitive Receptors from Toxic Air Contaminants	Less Than Significant with Mitigation

Gilroy is not identified by the air district's Community Air Risk Evaluation Program as a community impacted by significant levels of toxic air contaminants. However, there are several existing uses within the Gilroy 2040 General Plan Planning Area/Sphere of Influence that emit toxic air contaminants. These include generators, gasoline stations, and several other uses as shown in Table 3.3-4, Existing Stationary Sources Above Screening Level, presented earlier. Other toxic air contaminants sources that may affect sensitive receptors with implementation of the Gilroy 2040 General Plan are agricultural activities and traffic on U.S. Highway 101. New development in proximity to actively farmed agricultural land within and adjacent to the Urban Growth Boundary could potentially lead to dust and or chemical exposure. Exposure to agricultural sources would be reduced to a less-than-significant level due to requirements for buffers along the urban edge.

New development in proximity to U.S. Highway 101 could result in exposure to toxic air contaminants in the exhaust of vehicles on the freeway. The air district's database lists 42 existing land uses that have toxic air contaminants exceeding thresholds within the Gilroy 2040 General Plan Planning Area/Sphere of Influence. Of these, 16 are generators, which are expected to operate only intermittently, and not result in long-term exposure risk, 15 are gasoline stations with varying potential for significant emissions, and 11 are miscellaneous sources that require individual consideration.

Gasoline Stations. The toxic air contaminants effects of gasoline stations diminish with distance in accordance with the air district's *GDF Distance Multiplier Tool*. Gasoline stations with cancer risk of about 15 per one million are reduced to below the ten in one million threshold within about 85 feet, and residential uses would usually be located at least this

distance from a new gasoline station, so those gasoline stations are considered to have a less-than significant effect. The CARB recommends at least a 50-foot separation between typical gasoline stations and sensitive receptors (California Air Resources Board 2005, Table 1-1). The gasoline stations located east of U.S. Highway 101 are not near residential districts, schools, or other sensitive receptors, so are not expected to have adverse effects on sensitive receptors. The remaining gasoline stations are located along Leavesley Road and First Street. None of the existing gasoline stations is located near vacant residential land, so new residential development near existing gasoline stations is not likely. There are several vacant commercial parcels, and other commercial parcels with older development that could be redeveloped during the planning period. If these parcels were developed with gasoline stations, new toxic air contaminant sources could affect existing or planned residential uses. There are other locations in the Gilroy 2040 General Plan Planning Area/Sphere of Influence where new gasoline stations could be developed near new residential uses. If the cancer risk of the gasoline station is in excess of 15 cases per one million, there is the potential for adverse effects from toxic air contaminants.

Other Stationary Sources. Stationary sources of toxic air contaminants not located near areas designated for new sensitive receptors are as follows: Saint Louise Hospital, Con Agra/Gilroy Foods (two locations), Calpine Gilroy Cogen Energy, Temple Inland, Granite Construction Company, and the Wastewater Treatment Plant. These existing stationary sources have no potential for significant effects.

The Star Concrete Plant is located about 220 feet east of the Neighborhood District North area, where residential uses could be constructed. This use would be a non-conforming use under the Gilroy 2040 General Plan's Industrial Park designation. Therefore, the Gilroy 2040 General Plan does not envision the long-term continuance of this toxic air contaminant source. The Star Concrete Plant exceeds the fine particulate matter threshold with a screening level of 2.630 μ g/m^3.

Germain Technology Group (seeds) is located on Swanston Lane south of Leavesley Road and east of Monterey Road. This source is located adjacent to residences to the east, and adjacent to a parcel on Leavesley Road that could be redeveloped with residential uses in a mixed use setting within the Downtown Specific Plan. This use would be a non-conforming use under the Gilroy 2040 General Plan's Visitor Serving Commercial designation. Therefore, the Gilroy 2040 General Plan does not envision the long-term continuance of this toxic air contaminant source. Germain Technology Group exceeds the fine particulate matter threshold with a screening level of 7.380 μ g/m^3.

Bay Sheets (paper/cardboard/shipping) is located at the south end of Alexander Street, adjacent on the north and west to parcels on Tenth Street and Monterey Street that could be redeveloped with residential uses in a mixed use setting within the Downtown Specific Plan. This use is a conforming use under the Gilroy 2040 General Plan's General Services Commercial land use designation. Bay Sheets exceeds the fine particulate matter threshold with a screening level of 0.660 μ g/m^3.

Granite Rock is located on Chestnut Avenue north of Luchessa Avenue, adjacent to parcels on the west on Monterey Street that could be redeveloped with residential uses in a mixed use setting within the Downtown Specific Plan. This use is a conforming use under the Gilroy 2040 General Plan's Heavy Industrial designation. Granite Rock exceeds the fine particulate matter threshold with a screening level of 0.813 μ g/m^3.

The Gilroy 2040 General Plan does not include overlays on the existing point sources, and no specific locations of future point sources are known, although they can be expected within areas with a Heavy Industrial designation. Most areas with a Heavy Industrial designation are well-removed from potential or existing sensitive receptors. However, areas along Camino Arroyo and Chestnut Avenue are within 500 feet of residential designations of the Downtown Specific Plan, and could potentially be subject to toxic air contaminants exceeding standards. Existing point sources could potentially result in adverse effects on sensitive receptors within the Downtown Specific Plan and the Neighborhood District High area.

U.S. Highway 101. Most of the residential land within 500 feet of U.S. Highway 101, the only highway or road in the Gilroy 2040 General Plan meeting the definition of a high traffic roadway, has been designated residential in prior general plans and is already developed with residential uses. One exception is near Masten Avenue where the Neighborhood District North designation is applied to agricultural land adjacent to the freeway. In this area, residential uses could be constructed within 500 feet of U.S. Highway 101, and potentially be subjected to toxic air contaminants from freeway traffic. The Gilroy 2040 General Plan land use map does not show special overlay zones of at least 500 feet on each side of U.S. Highway 101 or include policies that directly address the potential for toxic air contaminants from traffic emissions. Development under the Gilroy 2040 General Plan would exacerbate the existing toxic air contaminants conditions within 500 feet of U.S. Highway 101. Only commercial and industrial development, which generates significant numbers of truck trips, would exacerbate diesel particulate matter emissions. Housing development, which results in only a small increase in truck traffic, would not significantly exacerbate diesel particulate matter emissions. Most development under the Gilroy 2040 General Plan would exacerbate the existing $PM_{2.5}$ conditions within 500 feet of U.S. Highway 101.

Given the limited extent of lands where new sensitive receptors could be located within 500 feet of U.S. Highway 101, the application of an overlay zone on the land use map is not necessary to protect future residents against toxic air contaminants from point sources; however, a protective policy specific to toxic air contaminants is necessary.

Some housing projects are exempt from CEQA. If Gilroy intends to exempt qualified housing developments from further CEQA review, toxic air contaminants modeling would be required to confirm the following housing sites qualify for the exemption:

- housing located within 500 feet of U.S. Highway 101;

- housing within the Downtown Specific Plan;
- housing within 500 feet of existing point sources with screening factors in excess of thresholds; or
- housing within 500 feet of areas designated Heavy Industrial.

Mitigation measures AQ-3 through AQ-5, presented later in this section, addresses this issue.

Gilroy 2040 General Plan

The Gilroy 2040 General Plan includes the following goals and policies to protect quality of life and minimize effects from toxic air contaminants and other pollutants.

Goal LU 1: Protect and enhance Gilroy's quality of life and unique identity while continuing to grow and change.

- LU 1.1 Pattern of Development
- LU 1.2 Residential Growth
- LU 1.3 Phased Commercial Growth

Policies LU 1.1 through LU 1.3 call for orderly and phased residential, commercial and industrial development.

Goal LU 4: Encourage the growth and development of retail, office, service, and entertainment uses in Gilroy to provide jobs, support city services, and make Gilroy an attractive place to live.

- LU 4.1 Clustering Commercial Uses

Policy LU 4.1 requires new commercial uses to group into clustered areas or centers, which would minimize residential exposures to toxic air contaminants (TAC) emissions from commercial stationary sources.

Goal LU 6: Support agricultural uses in and around Gilroy that have and will continue to influence Gilroy's identity and economy.

- LU 6.3 Agricultural Uses within the Planning Area
- LU 6.7 Agricultural Mitigation

Policy LU 6.3 encourages agriculture on land designated as "Rural County" as a compatible use in undeveloped portions of the Planning Area. Policy LU 6.7 encourages maintaining and implementing an Agricultural Mitigation Program to protect productive agricultural lands outside the Urban Growth Boundary from urban encroachment and to establish the mitigation requirements for loss of agricultural lands to new development.

Goal PH 1: Minimize potential for loss of life, injury, damage to property, and economic and social dislocation due to natural hazards through development controls and emergency preparedness.

- PH 1.1 Location of Future Development
- PH 1.3 Development Review

Policy PH 1.1 allows development only in those areas where potential danger to the health, safety, and welfare of residents can be adequately mitigated to an acceptable level of risk. This applies to development in areas subject to flood damage, fire damage, or geological hazard due to their location and/or design. Policy PH 1.3 requires appropriate studies as part of the development review process to assess potential hazards and assure that potential, significant impacts are adequately mitigated.

Goal PH 5: Protect people and environmental resources from contaminated hazardous material sites and minimize risks associated with the use, storage, transport, and disposal of hazardous materials.

- PH 5.1 Hazardous Materials and Waste Inspections
- PH 5.2 Hazardous Waste Reduction
- PH 5.4 Hazardous Materials Storage Ordinance
- PH 5.6 Hazardous Soils Conditions Clean-up
- PH 5.7 Buffers and Setbacks
- PH 5.8 Sensitive Uses

Policy PH 5.1 requires the provision of inspections to ensure compliance with local, State, and Federal regulations and to reduce the risks associated with the use, handling, and storage of hazardous materials and wastes. Policy PH 5.2 requires the minimization of potential hazards posed by the storage and transport of hazardous materials and waste by encouraging source reduction and waste minimization. Policy PH 5.4 requires continued routine inspection of activities that store and/or use hazardous materials, including above-ground and underground storage tanks and related equipment, to ensure compliance with the city's Hazardous Materials Storage Ordinance. Policy PH 5.6 requires the evaluation of new development sites for potentially hazardous soils conditions. In cases where contamination is identified, require that all necessary mitigation measures are incorporated into the project to ensure there is no public health danger. When appropriate, refer the project to the proper County or State agency for review. Policy PH 5.7 requires review of applications for commercial and industrial uses that involve the use, storage, and transport of hazardous materials to determine the need for buffer zones or setbacks to minimize risks to homes, schools, community centers, hospitals, and other sensitive uses. Policy PH 5.8

requires the review of applications for new residential, schools, community centers, hospitals, and other sensitive uses to identify potential implications for existing nearby businesses using, storing, or transporting hazardous materials. Such implications may include future limitations on the use of such materials by the businesses.

Implementation of these Gilroy 2040 General Plan goals and policies in addition to compliance with applicable federal, state and other local regulations reduce the public health risks and potential environmental damage from exposures to known sites with hazardous materials. In the event that residual contamination is encountered on a property, Policy PH 5.6 requires that all necessary mitigation measures are incorporated into the project to ensure there is no public health danger. The responsible county or state agency will evaluate the potential hazards and provide appropriate guidance for protecting and minimizing risks to the public and the environment during site development.

However, even with implementation of the proposed goals and policies, development consistent with the 2040 General Plan has the potential to result in exposing people to toxic air contaminants when residential development is proposed within 500 feet of U.S. Highway 101 or heavy industrial areas. Implementation of the following mitigation measures will reduce this potentially significant impact to a less-than-significant level.

Mitigation Measures

AQ-3. Add the following new policy to the Gilroy 2040 General Plan Natural and Cultural Resources element:

Sensitive Receptors within 500 feet of U.S. Highway 101. Require modeling of toxic air contaminants prior to approval of new residential development within 500 feet of U.S. Highway 101.

AQ-4. Add the following new policy to the Gilroy 2040 General Plan Natural and Cultural Resources element:

Sensitive Receptors within 500 feet of Existing Point Sources or Existing Heavy Industrial Designated Areas. Require modeling of toxic air contaminants prior to approval of new residential development within the Downtown Specific Plan within 500 feet of existing point sources with screening factors in excess of thresholds, or within 500 feet of areas designated Heavy Industrial.

AQ-5. Add the following new policy to the Gilroy 2040 General Plan Natural and Cultural Resources element:

New Industrial Uses within 500 feet of Sensitive Receptors. Require modeling of toxic air contaminants prior to approval of new industrial development within 500 feet of residential uses, Neighborhood District designations, or the Downtown Specific Plan.

Conclusion

Implementation of the Gilroy 2040 General Plan goals and policies, in addition to Mitigation Measures AQ-2 through AQ-5, would reduce the potential, significant impacts from toxic air contaminants to a less-than-significant level, by required applicable development proposals to evaluate toxic air contaminants and where significant, provide appropriate mitigation.

IMPACT	Adverse Effects from Odors	Less Than Significant

The strongest prevailing winds are the north-northwesterly sea breezes during the afternoon and early evening, and sensitive receptors to the south of odor sources would be most affected at that time. Light south-southeasterly breezes blow during the late evening and early morning, and sensitive receptors to the north of odor sources would be most affected at those times. None of the three existing principal sources of odors in the Gilroy 2040 General Plan Planning Area/Sphere of Influence (wastewater treatment plant, food processing plants along Pacheco Pass Highway, and farm operations) are located adjacent to large numbers of residences. The wastewater treatment plant is located at the far southeastern area of the Gilroy 2040 General Plan Planning Area/Sphere of Influence. Approximately 55 farmworker housing units are located adjacent to the wastewater treatment plant's treated water discharge ponds, about 3,000 feet northwest of the treatment tanks where odors are strongest. The agricultural processing plants are located along Pacheco Pass Highway, approximately one mile east of the nearest residential neighborhoods.

Agricultural fields are found to some extent on most sides of the city, but the largest areas of farmland are to the north, east, and southeast. Typical locations where subdivisions are close to farm fields include along Thomas Road (fields about 90 feet to the east), Cielo Vista Lane (fields about 120 feet to the north, and Woodcreek Lane (fields immediately adjacent). In most locations the farmland is an interim use of land that is designated in the Gilroy 2040 General Plan for urban uses. At Cielo Vista Lane, the adjacent land has a Rural County land use designation and is expected to remain in farming long-term. The farmworker housing near the wastewater treatment plant is immediately adjacent to farm fields, but the land has an urban land use designation. Because odors from agricultural fields are only occasionally noticeable, this is a less-than-significant odor impact.

Potential Odor Sources and Conflicts. Several land uses allowed within the city under the Gilroy 2040 General Plan could cause odors, either persistently or occasionally and incidentally. Some of these, such as heavy manufacturing, are allowed only in the Heavy Industrial land use designation, which, with a minor exception where it abuts the Downtown Specific Plan, is located to the east of U.S. Highway 101, and away from any sensitive receptors. Other uses that could cause odors are agricultural in nature, and would only be interim uses within the city limits. These are considered to have a less-than-

significant potential for odor impacts. Several uses with the potential to cause odors can be developed within land use designations that are located adjacent to residential districts, and these uses are listed in Table 3.3-9, Potentially Odorous Land Uses Adjacent to Residential Districts.

Table 3.3-9 Potentially Odorous Land Uses Adjacent to Residential Districts

Land Use	Zoning Districts Permitted (Conditional) Use	Land Use Designations
Landscape Nursery	C3, CM, GD	GSC, IP
Auto Body Repair and Painting	(CM)	GSC, IP
Printing/Sign Painting	C3, CM, DED, TD, CD, GD	GSC, IP, CGD, DTSP
Pottery/Ceramics Manufacture	CM	GSC, IP
Mortuary or Crematory	C3, CM, PF, TD, GD, (DED)	GSC, IP, PQP, DTSP
Newspaper Printing Facility	CM	GSC, IP
Dry Cleaning and Laundry	M1, M2	IP
Printing Shops	CI, M1, M2	IP
Food Processing Plant	(M1), M2	IP
Electronics, Plastics, Ceramics	(CI), (M1), M2	IP
Truck Service Station/ Terminal	(M1), (M2)	IP

Source: Gilroy Zoning Ordinance 2019, Gilroy 2040 General Plan Land Use Map 2020
Note: Zoning Districts: C3 = Shopping Center Commercial, CM = Commercial Industrial, DED = Downtown Expansion District, TD = Transitional District, CD= Cannery District, GD= Gateway District, CI = Campus Industrial, M1 = Limited Industrial, M2 = General Industrial, PF = Park/Public Facilities.
Land Use Designations: GSC = General Services Commercial, IP = Industrial Park, CGD = City Gateway District, PQP = Public and Quai-public, DTSP = Downtown Specific Plan
Zoning Districts and Land Use Designations not situated adjacent to residential districts are excluded.

The General Services Commercial land use designation is frequently located adjacent to residential districts and principally provides for retail uses that do not result in any significant odors. As noted in Table 3.3-9, Potentially Odorous Land Uses Adjacent to Residential Districts, there are several permitted or conditionally permitted uses allowed in this designation that could result in odors. The Industrial Park land use designation has a broader list of potentially odorous uses than does the General Services Commercial land use designation, but is described in the Gilroy 2040 General Plan as "low-intensity industrial developments that can locate in proximity to residential and commercial uses with a minimum of environmental conflict." The Industrial Park land use designation is generally buffered from residential uses by Monterey Road, but there are several locations where residential districts are adjacent. Several potentially odorous uses could be allowed within mixed use areas such as within the Downtown Specific Plan. The Gilroy 2040 General Plan includes policies to ensure that compatibility of uses is considered when uses are approved. Therefore, the potentially significant impacts from odors would be less than significant.

Gilroy 2040 General Plan

The Gilroy 2040 General Plan includes the following goals and policies that address exposures to unacceptable odors from incompatible land uses:

Goal LU 1: Protect and enhance Gilroy's quality of life and unique identity while continuing to grow and change.

- LU 1.5 Uses East of U.S. 101

Policy LU 1.5 prevents the location of residential uses to the east of U.S. Highway 101, thus ensuring separation of residential uses from the majority of heavy industrial odor sources.

Goal LU 4: Encourage the growth and development of retail, office, service, and entertainment uses in Gilroy to provide jobs, support city services, and make Gilroy an attractive place to live.

- LU 4.1 Commercial Design Standards and Review Procedures

Policy LU 4.1 requires commercial centers to incorporate buffering and screening to ensure their compatibility with residential neighborhoods.

Goal LU 6: Support agricultural uses in and around Gilroy that have and will continue to influence Gilroy's identity and economy.

- LU 6.7 Agricultural Mitigation
- LU 6.9 Greenbelts

Policy LU 6.7 requires implementation of the Agricultural Mitigation Program, which includes buffer requirements where urban development abuts permanent agricultural land, separating residential development from potential agricultural odors. Policy LU 6.9 requires a greenbelt, which provides additional assurance of separation between residential development from potential agricultural odors.

Goal LU 7: Encourage mixed-use development projects that create vibrant, walkable districts.

- LU 7.3 Compatibility with Adjoining Uses

Policy LU 7.3 encourages development within mixed-use districts and along corridors to be compatible with adjacent land uses, particularly to residential uses through site and architectural design techniques that establish transitions between uses and minimize negative impacts.

Goal EP 8: Proactively manage land uses to provide and enhance economic development and job growth.

- EP 8.3 Incompatible Uses

Policy EP 8.3 limits encroachment of incompatible uses, such as residential or assembly uses, in industrial areas so as to avoid the imposition of additional operational restrictions and/or mitigation requirements on industrial users, particularly in general industrial areas.

Goal PFS 1: Provide the highest level of public facilities and services feasible, consistent with the city's fiscal resources, to meet the needs of current and future residents and businesses.

- PFS 1.1 Neighborhood Compatibility

Policy PFS 1.1 requires location of public facilities in a manner that minimizes the adverse effects of odors associated with these facilities.

Goal PFS 2: Operate public facilities and services in a sustainable manner that uses public revenues and resources efficiently.

- PFS 2.7 Technology Use

Policy PFS 2.7 promotes evaluation and investment in technological advances to enhance the performance of internal city operations and the delivery of public services, which could include reduced odors from operation of the wastewater treatment plant.

Goal PFS 4: Maintain the city's wastewater collection, treatment, and disposal system to meet the needs of existing and future development anticipated in the Gilroy 2040 General Plan.

- PFS 4.7 Wastewater Treatment

Policy PFS 4.7 requires maintenance and operation of the wastewater treatment facilities, which supports applicable clean water, clean air, and health and safety regulatory requirements.

Goal PH 1: Minimize potential for loss of life, injury, damage to property, and economic and social dislocation due to natural hazards through development controls and emergency preparedness.

- PH 1.3 Development Review

Policy PH 1.3 requires appropriate studies as part of the development review process to assess potential hazards and assure that potentially significant impacts are adequately mitigated.

Conclusion

Implementation of the Gilroy 2040 General Plan goals, policies and programs would reduce the potentially significant odor impacts to less than significant. No mitigation is required.

Senate Bill 1000 – Planning for Healthy Communities Act

The air district commented on the revised NOP, requesting the EIR discuss how the 2040 General Plan addresses SB 1000, and address how cumulative air quality and GHG emissions may have disproportionate impacts on Equity and Engagement Districts. The full comment letter is included in Appendix B of this EIR.

The 2040 Draft General Plan includes an Environmental Justice Element, which identifies the boundary of Gilroy's Equity and Engagement District. The policies are included in Appendix C of this EIR. Many policies that address environmental impacts and improve the quality of life for residents living in the Equity and Engagement District are already present in other elements of the General Plan. The Environmental Justice Element of the General Plan includes goals, policies, and programs that aim to fill the gaps and ensure that the General Plan fully addresses the needs of the residents within the Equity and Engagement District, as well as in the rest of Gilroy. Regarding air quality impacts, Policy EJ 3.1 promotes retrofitting existing homes to filter out air contaminants and purify the air inside.

This EIR addresses air quality and greenhouse gas emissions impacts. There is nothing about the general plan, including land use designations, goals, policies, and implementation measures, that indicates the Equity and Engagement District within Gilroy would be disproportionately adversely environmentally affected by implementation of the 2040 General Plan.

3.4 BIOLOGICAL RESOURCES

This section describes the overall biological resources of the 2040 Gilroy General Plan Planning Area/Sphere of Influence and proposed Urban Growth Boundary. It includes discussions of the detailed Santa Clara Valley Habitat Plan (Habitat Plan), and how the Habitat Plan promotes comprehensive biological resource protections throughout the 2040 Gilroy General Plan Planning Area/Sphere of Influence. Unless otherwise noted, the information contained within this section is largely based on the *Gilroy 2040 General Plan Background Report* (Mintier Harnish 2014). The background report is available for review on the city's website at http://www.gilroy2040.com/documents/.

Comments related to biological resources were received during the two respective NOP comment periods from the California Department of Fish and Wildlife - Bay Delta Region (2020), Caltrans (2015), Santa Clara Valley Water District (2015), Valley Water (2020), and Save Open Space – Gilroy (2015).

Environmental Setting

The 2040 Gilroy General Plan Planning Area/Sphere of Influence occurs on the Gilroy, Chittenden, Watsonville East, and Mount Madonna U.S. Geological Survey (USGS) quadrangles. It falls within the Central Western California region, San Francisco Bay Area

sub-region that encompasses a diversity of natural vegetation types, from wet redwood forest to dry oak/pine woodland and chaparral.

The climate in the area is Mediterranean, with warm and dry summers, and winters tending to be cool and wet. Most of the annual rainfall occurs between the months of December and March. Elevation in the 2040 Gilroy General Plan Planning Area/Sphere of Influence ranges from about 100-200 feet in the central parts of the city, up to about 1,400 feet in the mountainous open space area adjacent to the Eagle Ridge community.

The 2040 Gilroy General Plan Planning Area/Sphere of Influence contains the lower parts of the Uvas Creek and Llagas Creek watersheds, Uvas Creek becomes Carnadero Creek east of U.S. Highway 101. These creeks flow generally southward as tributaries to the Pajaro River, which empties into Monterey Bay near the City of Watsonville.

Plant Communities and Wildlife Habitats

Santa Clara County contains a high diversity of native plant and wildlife species, including rare endemics (species that are restricted to certain areas) that are greatly limited in distribution and often dependent on particular habitat conditions, such as serpentine soils, vernal pools, or riparian woodlands. The 2040 Gilroy General Plan Planning Area/Sphere of Influence contains natural areas, but consists mainly of urban development and irrigated agricultural lands.

Heavily developed commercial and industrial areas do not provide much wildlife habitat. However, residential areas and drainage channels in the 2040 Gilroy General Plan Planning Area/Sphere of Influence support urban-adapted wildlife, such as common raccoon (*Procyon lotor*), introduced Virginia opossum (*Didelphis virginiana*), and introduced fox squirrel (*Sciurus niger*). Agricultural lands are intensively managed and support low densities of wildlife, such as common rodents and birds. Ornamental areas (including recreational parks such as Christmas Hill Park and Las Animas Park) often contain irrigated turf grass along with non-native shrubs and trees. Mature non-native trees, including gum (*Eucalyptus* sp.) and other species, provide perching and nesting habitat to various bird species.

Natural plant communities present in the 2040 Gilroy General Plan Planning Area/Sphere of Influence mainly include non-native grassland, oak woodland, and riparian forest.

Non-native grasslands primarily contain annual non-native grasses, such as bromes (*Bromus* spp.) and wild oats (*Avena* spp.). Common wildlife found in this habitat include southern alligator lizard (*Elgaria multicarinata*), California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), western harvest mouse (*Reithrodontomys megalotis*), and California vole (*Microtus californicus*). In the 2040 Gilroy General Plan Planning Area/Sphere of Influence, larger grasslands are concentrated in the foothills west of Santa Teresa Boulevard.

Oak woodlands are present in the 2040 Gilroy General Plan Planning Area/Sphere of Influence, mainly north and west of Mantelli Drive, north of Hecker Pass Highway, southwest of Eagle Ridge, and along seasonal (intermittent and ephemeral) drainages. Coast live oak (*Quercus agrifolia*) dominates this plant community: valley oak (*Quercus lobata*) and blue oak (*Quercus douglasii*) also occur. Annual grasses and a variety of herbaceous plants compose the understory. These areas provide cover, foraging, nesting, and perching habitat for native wildlife species.

Riparian forests are present in the 2040 Gilroy General Plan Planning Area/Sphere of Influence, mainly along Uvas Creek and Llagas Creek, dominated by willows (*Salix* spp.), western sycamore (*Platanus racemosa*), Fremont cottonwood (*Populus fremontii* ssp. *fremontii*), northern California black walnut (*Juglans hindsii*), coast live oak, and valley oak. Most other seasonal drainages in the 2040 Gilroy General Plan Planning Area/Sphere of Influence have been modified (with native vegetation removed) for flood control purposes. The riparian forests support the highest diversity of native wildlife, facilitate wildlife movement, and are especially important to breeding amphibians, such as California slender salamander (*Batrachoseps attenuatus*) and western toad (*Bufo boreas*). This habitat supports a variety of birds, reptiles such as western fence lizard (*Sceloporus occidentalis*) and rubber boa (*Charina bottae*), and mammals such as black-tailed deer (*Odocoileus hemionus columbianus*) and bobcat (*Lynx rufus*).

Serpentine rocks and soils, which are associated with several endemic (restricted to a certain area) special-status plants, are not common in the 2040 Gilroy General Plan Planning Area/Sphere of Influence. However, they have been noted to occur within the Glen Loma Ranch Specific Plan area, south of Christmas Hill Park and Mesa Road, and between Farman Canyon and Reservoir Canyon. The Glen Loma Ranch Specific Plan incorporates serpentine rocks and soils into an open space area identified as the "Rocky Knoll Habitat Area" on the Specific Plan land use map. In addition, serpentine soils are known to occur between Reservoir Canyon and Babbs Canyon, small patches are also mapped in an area south of Day Road and north of Hecker Pass Highway, in the northwestern portion of the 2040 Gilroy General Plan Planning Area/Sphere of Influence (slightly within the Urban Growth Boundary). It is possible that serpentine soils may occur in other undocumented areas.

Open Space Areas

Open space areas in the 2040 Gilroy General Plan Planning Area/Sphere of Influence preserve regionally important biological resources. Such areas include riparian forests and adjacent habitats along Uvas Creek and Llagas Creek, and the Eagle Ridge open space area located southwest of the developed Eagle Ridge golf community and Santa Teresa Boulevard. The Eagle Ridge area contains mountainous habitat, along with grasslands and seasonal wetlands.

There are several other open space areas currently designated in the 2040 Gilroy General Plan Planning Area/Sphere of Influence, including an area south of the Gilroy Sports Park and west of Monterey Road, a hillside area west of the terminus of Mantelli Drive in the

western area of the 2040 Gilroy General Plan Planning Area/Sphere of Influence, and drainage areas located within the Glen Loma Ranch Specific Plan area.

Sensitive Natural Communities

Sensitive natural communities occur in the 2040 Gilroy General Plan Planning Area/Sphere of Influence, and support special-status species, provide important habitat values for wildlife, represent areas of unusual or regionally restricted habitat types, and/or contain high biological diversity. In general, such communities include riparian habitats, oak woodlands, and serpentine areas, these sensitive natural communities are described above.

Wetlands and Waterways

Wetlands and waterways in the 2040 Gilroy General Plan Planning Area/Sphere of Influence, especially Uvas Creek and Llagas Creek, fall under the jurisdiction of the U.S Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), and Central Coast Regional Water Quality Control Board (RWQCB). As noted in Section 3.9, Storm Water and Flooding, several major creeks/drainage channels, large wetland features, and numerous Valley Water drainage ditches are located within or traverse the Urban Growth Boundary (refer also to Section 3.9, Storm Water and Flooding). In addition to these features, smaller drainage and other wetland features such as seasonal ponds and vernal pools may also be present within the Urban Grown Boundary, which may also fall under the jurisdiction of these resource agencies. Such features provide regionally important riparian and aquatic natural habitats that support a diverse variety of both common and special-status plant and wildlife species.

Wildlife Movement

Wildlife movement corridors provide connectivity between habitat areas, enhancing species richness and diversity, and usually also provide cover, water, food, and breeding sites. Wildlife movement includes migration (i.e., usually movement one way per season), inter-population movement (i.e., long-term dispersal and genetic flow), and small travel pathways (i.e., daily movement within an animal's territory). Habitat linkages/corridors, especially along Uvas Creek, Llagas Creek, and Eagle Ridge, facilitate wildlife movement between populations located in more remote areas. Habitat fragmentation due to development and the creation of man-made impassable barriers can impede wildlife movement.

While small travel pathways usually facilitate movement for daily home range activities, such as foraging or escape from predators, they also provide connection between outlying populations and the main populations, permitting an increase in gene flow among populations. These habitat linkages can occur on a large scale throughout the greater region. Habitat linkages/corridors facilitate wildlife movement between populations located in discrete locales, and often are located along vegetated riparian corridors and ridgeline trails. Habitat fragmentation due to development and the creation of man-made impassable barriers can impede wildlife movement.

Regulated Trees

city-designated protected trees, especially indigenous oaks (*Quercus* spp.), exist in both urban and natural areas in the 2040 Gilroy General Plan Planning Area/Sphere of Influence. As described in the Regulatory Setting discussion below, the Gilroy Municipal Code - Chapter 30.38.270 defines protected trees and establishes requirements for removal of any protected trees.

Habitat Plan Natural Community Categories and Land Cover Types

The Santa Clara Valley Habitat Plan protects biological resources in the 2040 Gilroy General Plan Planning Area/Sphere of Influence. The Habitat Plan contains a wealth of biological resource background information for the region, and its detailed conditions and requirements apply to covered activities to specifically protect 18 covered special-status species. The City of Gilroy is an active partner in the Santa Clara Valley Habitat Agency, which is a Joint Powers Authority responsible for executing the requirements of the Habitat Plan and creating a Reserve System for the benefit of covered species, natural communities, biological diversity, and ecosystem function.

The Habitat Plan provides broad-scale natural community and more detailed land cover mapping information, identifying areas throughout the overall 2040 Gilroy General Plan Planning Area/Sphere of Influence and within the Urban Growth Boundary. This data is summarized in Table 3.4-1, Santa Clara Valley Habitat Plan Natural Community Acreages and Table 3.4-2, Santa Clara Valley Habitat Plan Land Cover Acreages. This data set was created in 2006 (and updated to some degree in 2007) at a coarse level for a large portion of Santa Clara County based on interpretation of aerial photograph imagery, with a minimum mapping unit of ten acres for terrestrial features and one-quarter acre for aquatic/wetland features.

Table 3.4-1 Santa Clara Valley Habitat Plan Natural Community Acreages

Natural Community Category	Planning Area/ Sphere of Influence Acreage	Urban Growth Boundary Acreage
Grassland	2,646.9	361.8
Chaparral and Coastal Scrub	679.4	106.3
Oak Woodland	4,609.1	1,834.1
Riparian Forest and Scrub	1,185.4	427.3
Conifer Woodland	110.9	0.0
Wetland	82.8	21.0
Open Water	71.0	33.3
Irrigated Agriculture	18,471.5	3,102.9
Developed	8,933.6	5,813.8
No Data Available*	17.0	0.0
Total	36,807.7	11,700.5

Source: Santa Clara Valley Habitat Agency 2020, ICF International 2012, City of Gilroy 2020
Note: A negligible amount of data is unavailable along the County boundary due to minor boundary mapping differences.

Table 3.4-2 Santa Clara Valley Habitat Plan Land Cover Acreages

Land Cover Type	Planning Area/ Sphere of Influence Acreage	Urban Growth Boundary Acreage
Agricultural Developed	848.0	118.4
Barren	39.9	0.0
Blue Oak Woodland	418.5	27.2
California Annual Grassland	2,539.2	313.3
Coast Live Oak Forest and Woodland	316.0	251.3
Coastal and Valley Freshwater Marsh	81.0	21.0
Coyote Brush Scrub	36.3	0.0
Golf Course/Urban Parks	567.7	496.6
Grain, Row-Crop, Hay and Pasture, Disked/Short-term Fallowed	16,073.0	2,869.0
Mixed Evergreen Forest	0.5	0.5
Mixed Oak Woodland and Forest	3,715.4	1,532.5
Mixed Riparian Forest and Woodland	715.8	306.2
Northern Coastal Scrub/Diablan Sage Scrub	391.6	78.8
Northern Mixed Chaparral/Chamise Chaparral	251.5	27.5
Orchard	1,005.7	115.5
Ornamental Woodland	69.1	32.1
Pond	71.0	33.0
Ponderosa Pine Woodland	2.6	0.0
Redwood Forest	108.3	0.0
Rural - Residential	2,028.5	155.9
Seasonal Wetland	1.9	0.0
Serpentine Bunchgrass Grassland	98.8	40.5
Serpentine Rock Outcrop/Barrens	8.9	8.1
Urban - Suburban	6,228.4	5,129.4
Valley Oak Woodland	158.8	22.6
Vineyard	544.8	0.0
Willow Riparian Forest and Scrub	469.7	121.1
No Data Available*	17.0	0.0
Total	36,807.7	11,700.5

Source: Santa Clara Valley Habitat Agency 2020, ICF International 2012, City of Gilroy 2020
Note: A negligible amount of data is unavailable along the County boundary due to minor boundary mapping differences.

The general natural community categories contain numerous land cover types, which are thoroughly defined and described in the Habitat Plan, Section 3.3.5, Natural Communities and Land Cover Types (ICF International 2012 pp. 3-32 - 3-102). The Habitat Plan descriptions, summarized briefly below, include not only plant community characteristics,

but also related wildlife habitat information and lists of associated wildlife species. Figure 3.4-1, Habitat Land Cover Map, depicts the distribution of the natural communities/land covers in the 2040 Gilroy General Plan Planning Area/Sphere of Influence and Urban Growth Boundary.

Though the Habitat Plan regional data overall includes 37 specific land cover types, Table 3.4-2 shows only those land cover types mapped in the 2040 Gilroy General Plan Planning Area/Sphere of Influence (including the proposed Urban Growth Boundary). As illustrated on Figure 3.4-1 and listed in Table 3.4-1, they are grouped into seven natural community categories (grassland, chaparral and coastal scrub, oak woodland, riparian forest and scrub, conifer woodland, wetland, and open water) and two man-made land cover types (irrigated agriculture and developed).

The Habitat Plan full description of each natural community/land cover provides detailed information on historic land cover, associated wildlife, ecosystem function, and threats. Threats include multiple factors that could compromise the integrity and conservation of various land cover types, such as climate change, habitat loss, conversion, and fragmentation, invasive species (pathogens, plants, and wildlife), altered disturbance regimes, air pollution, and fire suppression. The following offers a brief summary of the natural community categories/land cover types that are mapped within the 2040 Gilroy General Plan Planning Area/Sphere of Influence.

Grassland Natural Community. Grasslands consist of vegetation dominated by grasses and forbs (herbaceous flowering plants). Grassland mapped in the 2040 Gilroy General Plan Planning Area/Sphere of Influence are classified as California annual grassland, serpentine bunchgrass grassland, and serpentine rock outcrop/barrens. The CDFW considers serpentine bunchgrass grassland a sensitive biotic community. As shown in Figure 3.4-1, most of the grassland natural community is found outside of the Urban Growth Boundary, however, several pockets of grassland vegetation are found within the Urban Growth Boundary near its northwestern boundary between Hecker Pass Highway and Day Road, and in its southern portion near Santa Teresa Boulevard.

Chaparral and Coastal Scrub Natural Community. Chaparral habitats are found throughout California on rocky, porous, nutrient-deficient soils and on steep slopes up to 2,000 meters (about 6,550 feet) in elevation. These habitats are dominated by densely packed and nearly impenetrable drought-adapted evergreen woody shrubs, one and one-half to four meters (about five to 13 feet) tall, that possess small, thick, leathery leaves. Herbaceous and arboreal growth forms are often lacking or play minor roles. Chaparral species have both deep and shallow roots that allow them to tap water in several soil layers. The deep roots also allow chaparral to tolerate summer drought conditions and stay active during this period of water stress. Chaparral land cover in the 2040 Gilroy General Plan Planning Area/Sphere of Influence is classified as northern mixed chaparral/chamise chaparral.

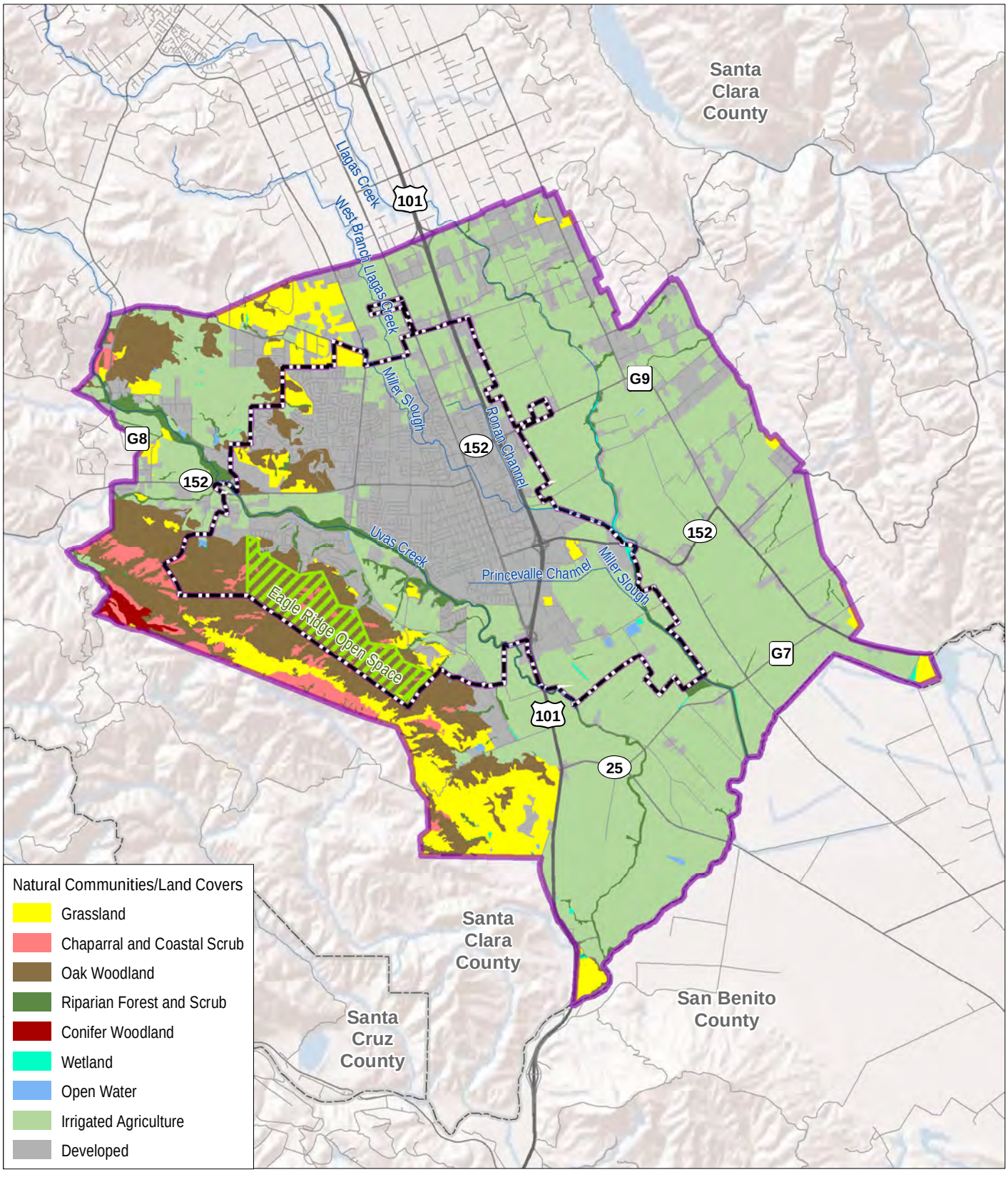
Coastal scrub habitats in northern/central California are characterized by the absence of drought-deciduous shrubs (that lose leaves during dry periods) and the presence of an herbaceous ground layer, which is likely a result of plentiful annual rainfall and regular summer fog. Northern coastal scrubs are generally characterized by low shrubs, usually one-half to two meters (about two to seven feet) tall with soft leaves, interspersed with grassy openings.

Northern coastal scrub is typically less diverse than coastal sage scrub found in southern California, and shrubs are generally taller and more densely spaced. In particular, coyote brush scrub is a type of northern coastal scrub dominated by coyote brush (*Baccharis pilularis*). The range of northern coastal scrubs can be defined as a narrow coastal strip from the Oregon border south to about Point Sur in Monterey County. Coastal scrubs in the 2040 Gilroy General Plan Planning Area/Sphere of Influence are classified as northern coastal scrub/Diablan sage scrub and coyote brush scrub.

As shown in Figure 3.4-1, most of this natural community is found outside of the Urban Growth Boundary, however, several pockets of chaparral and coastal scrub vegetation are found within the southwestern portion of the Urban Growth Boundary in the open space area adjacent to the Eagle Ridge community.

Oak Woodland Natural Community. Oak woodlands are dominated by oak (*Quercus* sp.) trees. This is an upland tree-dominated community with at least 10 percent cover of hardwood tree species. The oak-dominated land covers in the 2040 Gilroy General Plan Planning Area/Sphere of Influence are classified as valley oak woodland, mixed oak woodland and forest, coast live oak woodland and forest, blue oak woodland, and mixed evergreen forest. The CDFW considers valley oak woodland and blue oak woodland to constitute sensitive biotic communities, and tracks the distribution of these and many other rare natural communities in its state-wide database, mentioned below. As shown in Figure 3.4-1, much of this natural community is found outside of the Urban Growth Boundary, however, a significant expanse of high-quality oak woodland vegetation is found within the southwestern portion of the Urban Growth Boundary in the open space area adjacent to the Eagle Ridge community. Several additional pockets are also found within the Urban Growth Boundary near its northwestern boundary between Hecker Pass Highway and Day Road.

Riparian Forest and Scrub Natural Community. Riparian forest and scrub habitats in the 2040 Gilroy General Plan Planning Area/Sphere of Influence are classified as willow riparian forests, woodlands, and scrub, and mixed riparian woodland and forest. As shown in Figure 3.4-1, much of this natural community is found outside of the Urban Growth Boundary, however, significant linear corridors of high-quality riparian forest and scrub vegetation is found within the central and eastern portions of the Urban Growth Boundary along Uvas Creek and Llagas Creek.



Source: Santa Clara Valley Habitat Agency 2013, ICF International 2012, City of Gilroy 2018, Esri 2015

Figure 3.4-1

Habitat Plan Land Cover Map

Gilroy 2040 General Plan EIR

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Conifer Woodland Natural Community. Conifer woodland habitats in the 2040 Gilroy General Plan Planning Area/Sphere of Influence are classified as ponderosa pine woodland and redwood forest. As shown in Figure 3.4-1, none of this natural community is found within the Urban Growth Boundary.

Wetland Natural Community. Wetland habitats include areas subject to seasonal or perennial flooding or ponding, or areas that possess saturated soil conditions and support predominantly hydrophytic or "water-loving" herbaceous plant species. Because wetlands are periodically flooded, the plants growing in them must be able to tolerate low levels of soil oxygen associated with waterlogged or hydric soils. The presence of flood-tolerant species is often a good indication that a site is a wetland, even if the ground appears to be dry for most of the year, or if hydrologic influences are not obvious.

Wetlands in the 2040 Gilroy General Plan Planning Area/Sphere of Influence are classified as coastal and valley freshwater marsh, and seasonal wetland. In general, wetlands represent a sensitive biotic community due to their limited distribution and high importance to special-status plant and wildlife species. As shown in Figure 3.4-1, much of this natural community is found outside of the Urban Growth Boundary, however, a linear wetland corridor is found within the eastern portion of the Urban Growth Boundary along Llagas Creek, and a few small scattered locations also are found elsewhere within the Urban Growth Boundary.

Open Water Natural Community. Open water aquatic habitats include lakes, reservoirs, water treatment ponds, sloughs, and ponds (including percolation and stock ponds) that do not support emergent vegetation. Open water habitats in the 2040 Gilroy General Plan Planning Area/Sphere of Influence include scattered ponds. As shown in Figure 3.4-1, open water is found at a few small scattered locations within the Urban Growth Boundary.

Irrigated Agriculture Land Cover. Irrigated agriculture encompasses all areas where the native vegetation has been cleared for irrigated agricultural use. This man-made land cover does not include rangeland, which is often characterized as an agricultural land use. Irrigated agriculture land cover types in the 2040 Gilroy General Plan Planning Area/Sphere of Influence include the agriculture developed, orchard, vineyard, and grain, row-crop, hay and pasture, disked/short-term fallowed land cover categories in the Habitat Plan. In these areas, the land may have been irrigated in the past but show little or no sign of irrigation currently (e.g., fallow fields). As shown in Figure 3.4-1, this land cover is found in large expanses within the Urban Growth Boundary, especially in the southeastern portion.

Developed Land Cover. Finally, developed land cover mapping shows the extent and distribution of greatly modified lands. Developed areas in the 2040 Gilroy General Plan Planning Area/Sphere of Influence include the urban-suburban, rural-residential, golf courses/urban parks, ornamental woodland, and barren land cover categories in the Habitat Plan. As shown in Figure 3.4-1, this land cover dominates the central portion of the Urban Growth Boundary.

Santa Clara Valley Habitat Plan Overview for Urban Growth Boundary

The following information briefly summarizes additional biological data available through the overall Habitat Plan mapping system for the Urban Growth Boundary. According to the Habitat Plan, the central portion of the Urban Growth Boundary is mapped as developed urban areas. The Urban Growth Boundary contains small areas where payment for development of sensitive habitat is required through the Habitat Plan permit application process.

Small areas of blue oak (*Quercus douglasii*) woodland and valley oak (*Quercus lobata*) woodland, CDFW-designated sensitive biotic communities, occur in the northwestern and southern parts of the Urban Growth Boundary. Two "Category One" streams traverse the Urban Growth Boundary: Uvas Creek and Llagas Creek, wetland fee zones are located in the Urban Growth Boundary along these creeks and along smaller tributary drainages.

There are scattered patches of serpentine habitat within the Urban Growth Boundary that would require focused surveys for covered plant species prior to any proposed impacts, these areas are located along the northeastern edge of the Eagle Ridge open space area. Also, the Urban Growth Boundary includes required wildlife focused survey areas for tricolored blackbird (*Agelaius tricolor*) and Least Bell's vireo (*Vireo bellii pusillus*), mainly located along Uvas Creek and Llagas Creek.

Special-Status Species

Special-status species in this report are those listed as Endangered, Threatened, or Rare, or as Candidates for listing by the U.S. Fish and Wildlife Service (USFWS) and/or CDFW, or as Rare Plant Rank 1B or 2B species by the California Native Plant Society (CNPS). This designation also includes CDFW Species of Special Concern and Fully Protected species. Special-status species are generally rare, restricted in distribution, and/or declining throughout their range.

A search of the CDFW-maintained *California Natural Diversity Database* (CNDDB), which is a positive sighting state-wide database, was conducted for the Gilroy, Morgan Hill, Mount Sizer, Mississippi Creek, Mount Madonna, Gilroy Hot Springs, Watsonville East, Chittenden, and San Felipe USGS quadrangles in order to generate a list of potentially occurring special-status species in the Urban Growth Boundary and 2040 Gilroy General Plan Planning Area/Sphere of Influence vicinity. A USFWS *Endangered Species Program* Threatened and Endangered species list was also generated for Santa Clara County. Records of occurrence for special-status plants were reviewed for the nine USGS quadrangles listed above in the CNPS *Inventory of Rare and Endangered Plants*.

Due to strict regulatory agency protections, high priority conservation needs, and sensitive species status in the overall Habitat Plan study area, the Habitat Plan covers nine special-status plant species and nine special-status wildlife species, these species are identified in the tables below. Many additional special-status species are known to occur in the region.

Table 3.4-3, Special-Status Plants Potentially Occurring in the 2040 Gilroy General Plan Planning Area/Sphere of Influence Vicinity and Table 3.4-4, Special-Status Wildlife Potentially Occurring in the 2040 Gilroy General Plan Planning Area/Sphere of Influence Vicinity show special-status plant and wildlife species documented within the 2040 Gilroy General Plan Planning Area/Sphere of Influence vicinity, their listing status and suitable habitat description, and their potential to occur within the 2040 Gilroy General Plan Planning Area/Sphere of Influence, including within the Urban Growth Boundary. Figure 3.4-2, Occurrence Records for Special-Status Species in Planning Area Vicinity, presents recorded occurrences of special-status plant and wildlife species within the 2040 Gilroy General Plan Planning Area/Sphere of Influence and Urban Growth Boundary, and the Gilroy vicinity.

Many special-status species have potential to occur in the 2040 Gilroy General Plan Planning Area/Sphere of Influence, typically in undisturbed natural areas and largely within unique plant communities and/or wildlife habitats. Although there are no known existing occurrences of covered plant species in the 2040 Gilroy General Plan Planning Area/Sphere of Influence, there are scattered locations of serpentine substrate areas that would require focused surveys per the Habitat Plan for covered plant species prior to any proposed impacts, these areas are located within the Urban Growth Boundary along the northeastern edge of the Eagle Ridge open space area. Further, native nesting birds have potential to occur in the 2040 Gilroy General Plan Planning Area/Sphere of Influence during the bird nesting season (generally February through August).

Although high quality existing riparian and open space areas have been described earlier in this section, in general, many undeveloped properties located within the Urban Growth Boundary contain non-native grassland or ruderal (weedy) habitat, various non-native ornamental trees, fragmented or isolated natural areas, and active agricultural or otherwise mechanically disturbed areas with low value to native plant and wildlife species.

Regulatory Setting

Federal Laws and Regulations

Federal Endangered Species Act. The Federal Endangered Species Act forms the basis for the protection of threatened or endangered plants and wildlife. Section 7 imposes limits on the actions of federal agencies that might impact listed species. Section 9 prohibits the "taking" of a listed species by anyone, including private individuals, and state and local agencies. Section 10 requires the issuance of an incidental take permit before any action may be taken that would harm, harass, injure, kill, capture, collect, or otherwise hurt any individual of an endangered or threatened species. In the case of saltwater fish and other marine organisms, the requirements of the Federal Endangered Species Act are enforced by the National Marine Fisheries Service. The USFWS enforces all other cases.

Table 3.4-3 Special-Status Plants Potentially Occurring in the Planning Area/Sphere of Influence Vicinity

Species	Status (Federal/ State/CNPS)	Suitable Habitat Description	Potential to Occur in Planning Area/ Sphere of Influence
Anderson's manzanita *(Arctostaphylos andersonii)*	--/--/1B.2	Broadleaved upland forest, chaparral, and North Coast coniferous forest. Known only from the Santa Cruz Mountains. Prefers open sites in redwood forest; elevation 180-800 meters (m).	Not expected to occur. No suitable habitat present; outside species' known geographic range.
Arcuate bush-mallow *(Malacothamnus arcuatus)*	--/--/1B.2	Chaparral, in gravelly alluvium; elevation 80-355m.	Moderate potential to occur. Record of occurrence exists along Uvas Creek floodplain.
Big-scale balsamroot *(Balsamorhiza macrolepis)*	--/--/1B.2	Valley and foothill grassland, cismontane woodland; sometimes on serpentine; elevation 35-1000m.	Low potential to occur. Not known near planning area, but suitable habitat present.
California alkali grass *(Puccinellia simplex)*	--/--/1B.2	Alkaline, vernally mesic sites in chenopod scrub, meadows and seeps, valley and foothill grassland, and vernal pools; prefers sinks, flats, and lake margins; elevation 2-930m.	Moderate potential to occur. Records of occurrence exist a few miles south of Gilroy.
Chaparral harebell *(Campanula exigua)*	--/--/1B.2	Chaparral (rocky, usually serpentine); elevation 275-1250m.	Low potential to occur. Not known near planning area, but suitable habitat present.
Congdon's tarplant (*Centromadia parryi* spp. *congdonii)*	--/--/1B.1	Valley and foothill grassland; elevation 1-230m. Known to occur on various substrates, and in disturbed and ruderal (weedy) areas.	Not expected to occur. Outside species' known geographic range.
Coyote ceanothus *(Ceanothus ferrisiae)*	FE/--/1B.1	Serpentine sites in chaparral, coastal scrub, and valley and foothill grassland; elevation 120-460m.	Low potential to occur. Not known near planning area, but suitable habitat present. Species is covered under the Santa Clara Valley Habitat Plan (SCVHP), with protective conditions required for covered activities.
Dwarf soaproot *(Chlorogalum pomeridianum var. minus)*	--/--/1B.2	Serpentine sites in chaparral; elevation 120-1220m.	Not expected to occur. Only occurrence in region is historical record from 1896.
Fragrant fritillary *(Fritillaria liliacea)*	--/--/1B.2	Coastal scrub, valley and foothill grassland, and coastal prairie. Often on serpentine, various soils reported though usually clay in grassland; elevation 3-410m.	Low potential to occur. Not known near planning area, but suitable habitat present. Species is covered under the SCVHP, with protective conditions required for covered activities.

Species	Status (Federal/ State/CNPS)	Suitable Habitat Description	Potential to Occur in Planning Area/ Sphere of Influence
Hall's bush-mallow *(Malacothamnus hallii)*	--/--/1B.2	Chaparral, some populations on serpentine; elevation 10-550m.	Low potential to occur. Not known near planning area, but suitable habitat present.
Hoover's button-celery *(Eryngium aristulatum* var. *hooveri)*	--/--/1B.1	Vernal pools. Alkaline depressions, roadside ditches, and other wet places near the coast; elevation 5-45m.	Moderate potential to occur. Record of occurrence exists west of Gilroy in vernal pool habitat.
Hospital Canyon larkspur *(Delphinium californicum* ssp. *interius)*	--/--/1B.2	Cismontane woodland and chaparral, in wet, boggy meadows, openings in chaparral, and in canyons; elevation 225-1060m.	Low potential to occur. Not known near planning area, but suitable habitat present.
Kings Mountain manzanita *(Arctostaphylos regismontana)*	--/--/1B.2	Broadleaved upland forest, chaparral, North Coast coniferous forest. Granitic or sandstone outcrops; elevation 305-730m.	Not expected to occur. Outside species' known geographic range.
Legenere *(Legenere limosa)*	--/--/1B.1	In beds of vernal pools; elevation 1-880m.	Not expected to occur. Outside species' known geographic range.
Loma Prieta hoita *(Hoita strobilina)*	--/--/1B.1	Wet areas on serpentine substrate in chaparral, cismontane woodland, and riparian woodland; elevation 30-860m.	Low potential to occur on serpentine soils. Historical record of occurrence exists in the general area from 1918. Species is covered under the SCVHP, with protective conditions required for covered activities.
Metcalf Canyon jewel-flower *(Streptanthus albidus* ssp. *albidus)*	FE/--/1B.1	Valley and foothill grassland. Endemic to Santa Clara County. Relatively open areas in dry grassy meadows on serpentine soils/serpentine balds; elevation 45-245m.	Low potential to occur. Not known near planning area, but suitable habitat present. Species is covered under the SCVHP, with protective conditions required for covered activities.
Monterey spineflower *(Chorizanthe pungens* var. *pungens)*	FT/--/1B.2	Sandy openings in maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland; elevation 3-450m.	Not expected to occur. Outside species' known geographic range.
Most beautiful jewel-flower *(Streptanthus albidus* ssp. *peramoenus)*	--/--/1B.2	Chaparral, valley and foothill grassland, and cismontane woodland; serpentine outcrops, on ridges and slopes; elevation 120-730m.	Low potential to occur. Not known near planning area, but suitable habitat present. Species is covered under the SCVHP, with protective conditions required for covered activities.

Species	Status (Federal/ State/CNPS)	Suitable Habitat Description	Potential to Occur in Planning Area/ Sphere of Influence
Mt. Hamilton coreopsis *(Leptosyne hamiltonii)*	--/--/1B.2	Rocky sites in cismontane woodland; prefers steep shale talus with open southwestern exposure; elevation 550-1300m.	Not expected to occur. No suitable habitat present; outside species' known elevation range.
Mt. Hamilton fountain thistle *(Cirsium fontinale* var. *campylon)*	--/--/1B.2	Serpentine seeps in chaparral, cismontane woodland, and valley and foothill grassland; elevation 100-890m.	Low potential to occur. Not known near planning area, but suitable habitat present. Species is covered under the SCVHP, with protective conditions required for covered activities.
Mt. Hamilton jewel-flower *(Streptanthus callistus)*	--/--/1B.3	Chaparral, cismontane woodland. Open slopes on shale with grey pine and/or black oak; elevation 600-790m.	Not expected to occur. No suitable habitat present; outside species' known elevation range.
Pajaro manzanita *(Arctostaphylos pajaroensis)*	--/--/1B.1	Sandy soils in chaparral habitat; evergreen; elevation 30-760m.	Not expected to occur. Outside species' known geographic range.
Pink creamsacs *(Castilleja rubicundula* ssp. *rubicundula)*	--/--/1B.2	Chaparral, meadows and seeps, and valley and foothill grassland. Openings in chaparral or grasslands on serpentine soils; elevation 20-900m.	Low potential to occur. Not known near planning area, but suitable habitat present.
Prostrate vernal pool navarretia *(Navarretia prostrata)*	--/--/1B.2	Coastal scrub, valley and foothill grassland, vernal pools. Alkaline soils in grassland, or in vernal pools; elevation 15-700m.	Low potential to occur. Not known near planning area, but suitable habitat present.
Robust spineflower *(Chorizanthe robusta* var.*robusta)*	FE/--/1B.1	Sandy or gravelly openings in cismontane woodland, coastal dunes, and coastal scrub; prefers sandy terraces and bluffs or loose sand; elevation 3-300m.	Not expected to occur. Outside species' known geographic range.
Rock sanicle *(Sanicula saxatilis)*	--/SR/1B.2	Rocky sites in broadleaved upland forest, chaparral, and valley and foothill grassland; prefers bedrock outcrops and talus slopes; elevation 620-1175m.	Not expected to occur. No suitable habitat present; outside species' known elevation range.
Saline clover *(Trifolium hydrophilum)*	--/--/1B.2	Marshes and swamps, valley and foothill grassland, and vernal pools. Prefers wet, alkaline sites; elevation 0-300m.	Low potential to occur. Not known near planning area, but suitable habitat present.
San Francisco collinsia *(Collinsia multicolor)*	--/--/1B.2	Serpentine sites in closed cone coniferous forest and coastal scrub; prefers decomposed shale (mudstone) mixed with humus; elevation 30-250m.	Low potential to occur. Not known near planning area, but suitable habitat present.

Species	Status (Federal/ State/CNPS)	Suitable Habitat Description	Potential to Occur in Planning Area/ Sphere of Influence
San Joaquin spearscale *(Extriplex joaquinana)*	--/--/1B.2	Alkaline sites in chenopod scrub, meadows and seeps, playas, valley and foothill grassland; elevation 1-320m.	Low potential to occur. Not known near planning area, but suitable habitat present.
Santa Clara Valley dudleya *(Dudleya abramsii* ssp. *setchellii)*	FE/--/1B.1	Valley and foothill grassland, cismontane woodland. Endemic to serpentine outcrops and on rocks within grassland or woodland of Santa Clara County; elevation 80-335m.	Low potential to occur. Not known near planning area, but suitable habitat present. Species is covered under the SCVHP, with protective conditions required for covered activities.
Santa Cruz clover *(Trifolium buckwestiorum)*	--/--/1B.1	Mesic sites in broadleaved upland forest, cismontane woodland, and coastal prairie; prefers moist grassland and gravelly margins; elevation 105-610m.	Not expected to occur. Outside species' known geographic range.
Santa Cruz Mountains beardtongue *(Penstemon rattanii* var. *kleei)*	--/--/1B.2	Chaparral and lower montane coniferous forest; sandy shale slopes, transition zone between forest and chaparral; elevation 400-1100m.	Low potential to occur. Not known near planning area, but suitable habitat present.
Santa Cruz tarplant *(Holocarpha macradenia)*	FT/SE/1B.1	Coastal prairie, coastal scrub, valley and foothill grassland; often on clay or sandy soils; elevation 10-220m.	Not expected to occur. Outside species' known geographic range.
Smooth lessingia *(Lessingia micradenia* var. *glabrata)*	--/--/1B.2	Chaparral; endemic to Santa Clara County. Serpentine, often on roadsides; elevation 120-485m.	Moderate potential to occur on serpentine soils. Record of occurrence exists west of Gilroy. Species is covered under the SCVHP, with protective conditions required for covered activities.
Tiburon paintbrush *(Castilleja affinis* ssp. *neglecta)*	FE/ST/1B.2	Valley and foothill grassland on serpentine substrates; elevation 60-400m.	Low potential to occur. Not known near planning area, but suitable habitat present. Species is covered under the SCVHP, with protective conditions required for covered activities.
Two-fork clover *(Trifolium amoenum)*	FE/--/1B.1	Valley and foothill grassland, coastal bluff scrub. Sometimes on serpentine soil. Open sunny sites, swales; elevation 5-560m.	Not expected to occur. Outside species' known geographic range.
Woodland woollythreads *(Monolopia gracilens)*	--/--/1B.2	Serpentine, open sites in broadleaved upland forest, chaparral, cismontane woodland, North Coast coniferous forest, valley and foothill grassland; elevation 100-1200m.	Low potential to occur. Not known near planning area, but suitable habitat present.

Species	Status (Federal/ State/CNPS)	Suitable Habitat Description	Potential to Occur in Planning Area/ Sphere of Influence
Yadon's rein orchid *(Piperia yadonii)*	FE/--/1B.1	Sandy sites in coastal bluff scrub, closed cone coniferous forest, maritime chaparral; elevation 10-510m.	Not expected to occur. No suitable habitat present; outside species' known geographic range.

Listing Status Codes:
Federal (USFWS)
FE - Listed as Endangered under the Federal Endangered Species Act.
FT - Listed as Threatened under the Federal Endangered Species Act.
State (CDFW)
SE - Listed as Endangered under the California Endangered Species Act.
ST - Listed as Threatened under the California Endangered Species Act.
SR - Listed as Rare under the California Endangered Species Act.
CNPS Rare Plant Ranks and Threat Code Extensions
1B: Plants that are considered Rare, Threatened, or Endangered in California and elsewhere.
2B: Plants that are considered Rare, Threatened, or Endangered in California, but more common elsewhere.
.1: Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat).
.2: Fairly endangered in California (20-80% occurrences threatened).
.3: Not very endangered in California (<20% of occurrences threatened or no current threats known).
Source: CDFW 2020, CNPS 2020, USFWS 2020

Table 3.4-4 Special-Status Wildlife Potentially Occurring in the Planning Area/Sphere of Influence Vicinity

Species	Status (Federal/ State)	Suitable Habitat Description	Potential to Occur in Planning Area/ Sphere of Influence
American badger *(Taxidea taxus)*	--/SSC	Most abundant in drier, open stages of most shrub, forest, and herbaceous habitats. Needs sufficient food and open, uncultivated ground with friable soils to dig burrows. Preys on burrowing rodents.	Moderate potential to occur within suitable grassland habitats. Record of occurrence exists within Planning Area/Sphere of Influence.
Bank swallow *(Riparia riparia)*	--/ST	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured sandy soils near streams, rivers, lakes, or ocean to dig nesting hole.	Not expected to occur. No cliff sites or riverbank nesting substrate habitat present.
Bay checkerspot butterfly *(Euphydryas editha bayensis)*	FT/--	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. *Plantago erecta* is the primary host plant; *Castilleja densiflora* and *C. exserta* are secondary host plants.	Moderate potential to occur within suitable (short in height) serpentine grassland habitats containing larval host plant(s). Species is covered under the SCVHP, with protective conditions required for covered activities.
Burrowing owl *(Athene cunicularia)*	--/SSC	Open, dry, annual or perennial grasslands, desert, or scrubland, with available concentration of small mammal burrows. Prefers grasses short in height, such as those mowed or grazed.	Low potential to occur within suitable (short in height) grassland habitats containing concentrations of small mammal burrows. Species is covered under the SCVHP, with protective conditions required for covered activities.
California giant salamander *(Dicamptodon ensatus)*	--/SSC	Wet coastal forests near streams and seeps from Mendocino County south to Monterey County, and east to Napa County. Larvae found in cold, clear streams, occasionally in lakes and ponds. Adults found in wet forests under rocks and logs near streams and lakes.	Low potential to occur. Closest occurrence records exist a few miles west of Gilroy, with many more records throughout the Santa Cruz Mountains.
California red-legged frog *(Rana draytonii)*	FT/SSC	Rivers, creeks, and stock ponds with pools and overhanging vegetation. Requires dense, shrubby or emergent riparian vegetation, and prefers short riffles and pools with slow-moving, well-oxygenated water. Needs upland habitat to aestivate (remain dormant during dry months) in small mammal burrows, cracks in the soil, or moist leaf litter.	Known to occur within ponds and along Llagas Creek within the Planning Area/Sphere of Influence. Low potential to breed within suitable ponded water and seasonal wetland habitats. Species known to migrate up to two miles from breeding habitat through a variety of habitat types. Species is covered under the SCVHP, with protective conditions required for covered activities.

Species	Status (Federal/ State)	Suitable Habitat Description	Potential to Occur in Planning Area/ Sphere of Influence
California tiger salamander *(Ambystoma californiense)*	FT/ ST	Grasslands and oak woodlands near seasonal pools and stock ponds in central and coastal California. Needs upland habitat to aestivate (remain dormant during dry months) in small mammal burrows, cracks in the soil, or moist leaf litter. Requires seasonal water sources that persist into late March for breeding habitat.	Known to breed in ponded water and seasonal wetland habitats within the Planning Area/Sphere of Influence. Moderate potential to occur in adjacent grassland habitat areas within 2,200 feet of breeding ponds if suitable aestivation (i.e., burrow) habitat is available. Species is covered under the SCVHP, with protective conditions required for covered activities.
Coast horned lizard *(Phrynosoma blainvillii)*	--/SSC	Arid grassland and scrubland habitats; prefers lowlands along sandy washes with scattered low bushes. Requires open areas for sunning, bushes for cover, patches of loose soil for burrowing, and abundant supply of ants and other insects for feeding.	Low potential to occur within suitable grassland habitats.
Crotch bumble bee *(Bombus crotchii)*	--/CE	Occurs in coastal California east to the Sierra-Cascade Crest and south into Mexico. Food plants include species of *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia,* and *Eriogonum*.	Low potential to occur. Only occurrence record in the vicinity is 1959 collection near San Martin, a few miles northwest of Gilroy.
Foothill yellow-legged frog *(Rana boylii)*	--/CT	Partly shaded, shallow streams and riffles with rocky substrate in a variety of habitats. Requires at least some cobble-sized substrate for egg-laying and 15 weeks of available water to attain metamorphosis.	Low potential to occur within suitable low-gradient stream course habitats. Species is covered under the SCVHP, with protective conditions required for covered activities.
Golden eagle *(Aquila chrysaetos)*	--/SFP	Rolling foothill mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range. Also uses large trees in open areas.	Low potential to occur. Occurrence records in the vicinity exist west, north, and east of Morgan Hill, several miles north of Gilroy.
Grasshopper sparrow *(Ammodramus savannarum)*	--/SSC	Dense grasslands on rolling hills, lowland plains, in valleys, and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs, and scattered shrubs. Loosely colonial when nesting.	Low potential to occur. Only occurrence record in the vicinity is based on an individual heard singing in serpentine grassland in 2012 on Coyote Ridge, about 15 miles northwest of Gilroy.
Least Bell's vireo *(Vireo bellii pusillus)*	FE/SE	Summer resident of southern and central California in riparian habitats below 2,000 feet in elevation. Often nests in large shrubs, along margins of bushes or on twigs projecting into pathways.	Known to occur along Llagas Creek. Suitable habitat present within dense riparian habitats along major creeks. Species is covered under the SCVHP, with protective conditions required for covered activities.

Species	Status (Federal/ State)	Suitable Habitat Description	Potential to Occur in Planning Area/ Sphere of Influence
Loggerhead shrike *(Lanius ludovicianus)*	--/SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands; desert oases, scrub, and washes. Prefers open country for hunting, with perches for scanning and fairly dense shrubs and brush for nesting.	Low potential to occur. Only occurrence record in the vicinity is from 2012 in Coyote Valley, about 15 miles northwest of Gilroy.
Monterey roach *(Lavinia symmetricus subditus)*	--/SSC	Tributaries to Monterey Bay, specifically the Salinas, Pajaro, and San Lorenzo drainages.	Low potential to occur. Only occurrence record in the vicinity is from 2000 in Llagas Creek above Chesbro Reservoir, less than 10 miles northwest of Gilroy.
Pallid bat *(Antrozous pallidus)*	--/SSC	Deserts, grasslands, scrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Low potential to occur within suitable woodland habitats. Record of occurrence exists within Planning Area/Sphere of Influence.
San Francisco dusky-footed woodrat *(Neotoma fuscipes annectens)*	--/SSC	Forest habitats of moderate canopy and moderate to dense understory. Constructs nest of shredded grass, leaves, and other materials.	Not expected to occur. Planning Area/Sphere of Influence is outside species' known range.
San Joaquin kit fox *(Vulpes macrotis mutica)*	FE/ST	Annual grasslands or grassy open stages with scattered shrubby vegetation. Needs loose-textured sandy soils for burrowing, and suitable prey base.	Not expected to occur. No records of occurrence within Planning Area/Sphere of Influence for over 30 years. Species is likely locally extirpated. Species is covered under the SCVHP, with protective conditions required for covered activities.
Santa Cruz black salamander *(Aneides niger)*	--/SSC	Mixed deciduous and coniferous woodlands and coastal grasslands in San Mateo, Santa Cruz, and Santa Clara Counties. Adults found under rocks, talus, and damp woody debris.	Low potential to occur. Closest occurrence record is near Hecker Pass Highway along Bodfish Creek in Mt. Madonna County Park, a few miles west of Gilroy.
Steelhead *(Oncorhynchus mykiss irideus)*	FT/--	Coastal streams with clean spawning gravel. Requires cool water and pools. Needs migratory access between natal stream and ocean.	Known to occur in Uvas Creek. Suitable habitat present within major creek and tributary habitats in early winter through late spring. Unlikely that species spawns within Planning Area/Sphere of Influence.

Species	Status (Federal/ State)	Suitable Habitat Description	Potential to Occur in Planning Area/ Sphere of Influence
Swainson's hawk *(Buteo swainsoni)*	--/ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas, such as grasslands or agricultural fields supporting rodent populations.	Low potential to occur. Species presence in region is based on a 2013 record, the first modern record of this species observed breeding in the Santa Clara Valley. This nest is in Coyote Valley near San Jose. The breeding distribution of this species is concentrated within the Central Valley. Although there are records of individuals passing through this region during migration, impacts to this species are only considered significant near a nest.
Townsend's big-eared bat *(Corynorhinus townsendii)*	--/SSC	Inhabits a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Moderate potential to occur. Closest occurrence record is a few miles east of Gilroy, but species is known to occur throughout California.
Tricolored blackbird *(Agelaius tricolor)*	--/ST	Areas adjacent to open water with protected nesting substrate, which typically consists of dense, emergent freshwater marsh vegetation.	Low potential to occur within dense freshwater marsh habitats. Species is covered under the SCVHP, with protective conditions required for covered activities.
Western bumble bee *(Bombus occidentalis)*	--/CE	Once common and widespread, species has declined precipitously in Central California and areas south, perhaps from disease.	Low potential to occur. Known in vicinity from historical collections: 1940 in Morgan Hill and 1959 in Watsonville.
Western pond turtle *(Emys marmorata)*	--/SSC	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs basking sites (such as rocks or partially submerged logs) and suitable upland habitat for egg-laying (sandy banks or grassy open fields).	Known to occur in wetland habitats, including Uvas Creek. Species is covered under the SCVHP, with protective conditions required for covered activities.
White-tailed kite *(Elanus leucurus)*	--/SFP	Rolling foothills and valley margins with scattered oaks, and river bottomlands or marshes next to deciduous woodlands. Open grasslands, meadows, or marshes for foraging close to dense-topped trees for nesting and perching. Will also nest in orchards.	Known to occur in Planning Area/Sphere of Influence.

Species	Status (Federal/ State)	Suitable Habitat Description	Potential to Occur in Planning Area/ Sphere of Influence
Yellow-breasted chat *(Icteria virens)*	--/SSC	Riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian habitats. Forages and nests within ten feet of ground.	Low potential to occur. Only occurrence record in the vicinity is from 2010 in Coyote Valley, about 15 miles northwest of Gilroy.

Listing Status Codes:
Federal (USFWS)
FE – Listed as Endangered under the Federal Endangered Species Act.
FT – Listed as Threatened under the Federal Endangered Species Act.
State (CDFW)
SE – Listed as Endangered under the California Endangered Species Act.
CE – Candidate as Endangered under the California Endangered Species Act.
ST – Listed as Threatened under the California Endangered Species Act.
CT – Candidate as Threatened under the California Endangered Species Act.
SSC – Species of Special Concern.
SFP – Fully Protected species under the California Fish and Game Code.
Source: CDFW 2020, USFWS 2020

Section 9 of the Federal Endangered Species Act prohibits the "take" of any wildlife species listed as "endangered" or "threatened." "Take" is defined under the Federal Endangered Species Act as follows: "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." "Harm" is defined to mean an act that actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. If "take" of a listed species is necessary to complete an otherwise lawful activity and if a federal agency will carry out, fund, or approve that activity, this triggers the need for consultation under Section 7 of the Federal Endangered Species Act. For those projects that do not involve federal agency action, Section 10 of the Federal Endangered Species Act can be utilized to obtain authorization for the "incidental take" of listed species through development of a habitat conservation plan.

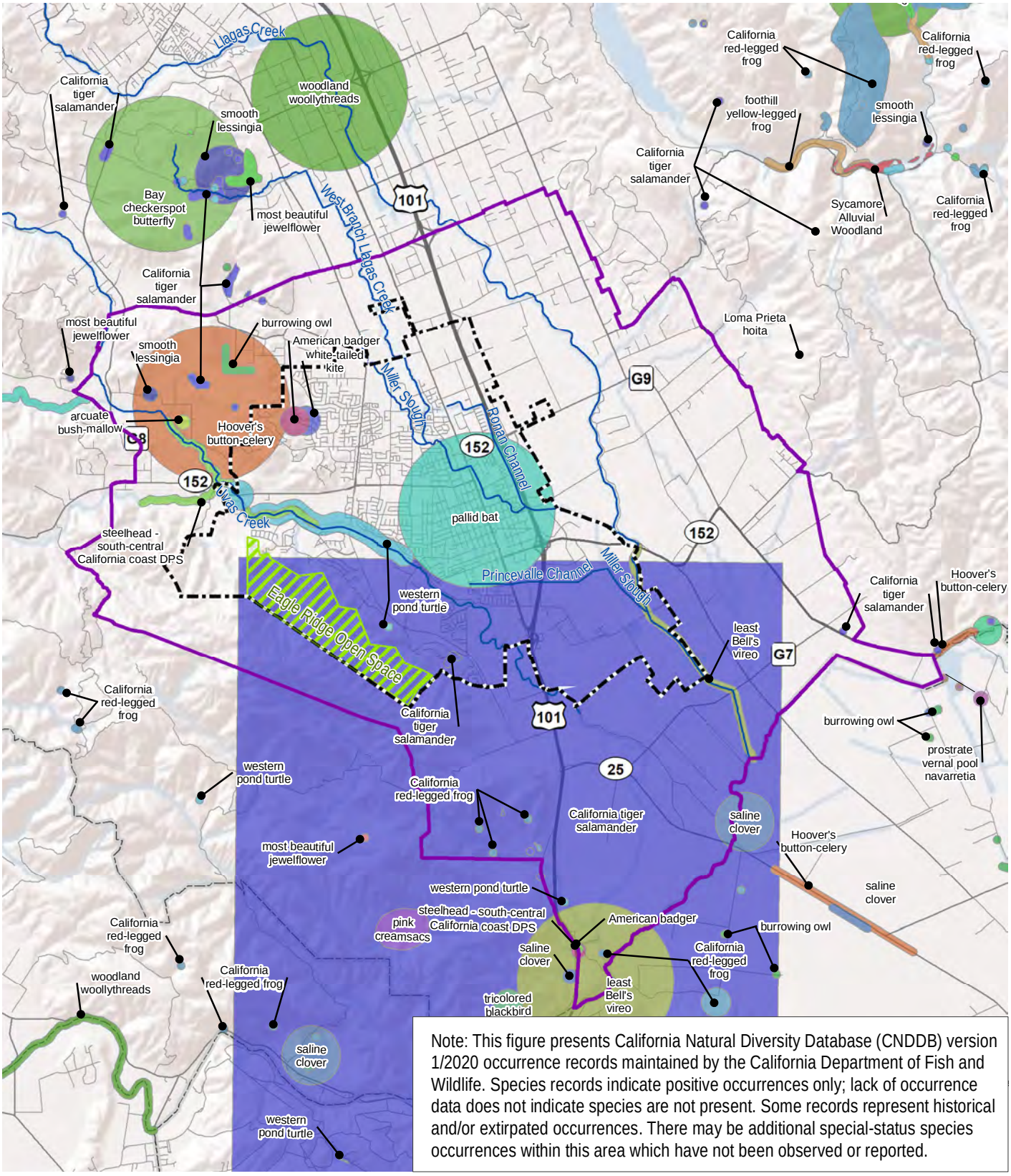
Migratory Bird Treaty Act. Migratory birds are protected under the federal Migratory Bird Treaty Act. The Migratory Bird Treaty Act makes it unlawful to take, possess, buy, sell, purchase, or barter any listed migratory bird, including their feathers or other parts, nests, eggs, young, or products, except in accordance with regulations prescribed by the Secretary of the Interior. The vast majority of birds found in the project region are protected under the Migratory Bird Treaty Act.

Clean Water Act, Section 404: Navigable Waters. The USACE is a federal agency with regulatory authority over navigable waters and other aquatic sites, including wetlands, which may be impacted by development. The goal of the Clean Water Act is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." To meet this objective, the Clean Water Act prohibits the discharge of any pollutants into navigable waters, except as allowed by permits issued under Section 404 of the Clean Water Act. Section 404 authorizes the USACE to issue permits for and to regulate the discharge of dredged or fill materials into waters of the U.S.

State Laws and Regulations

California Fish and Game Code. Sections 1900-1913 of the California Fish and Game Code preserve, protect, and enhance endangered or rare native plants. The CDFW establishes criteria for determining which native plants are rare or endangered. A species is endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more causes. A species is rare, although not threatened with immediate extinction, if it is in such small numbers throughout its range that it may become endangered if its present environment worsens. The sections prohibit any person from importing into or taking, possessing, or selling within the State any endangered or rare native plant, except as incident to the possession or sale of the real property on which the plant is growing.

Sections 2050 to 2097 of the California Fish and Game Code implement the California Endangered Species Act. The CDFW maintains a list of endangered and threatened species.



Note: This figure presents California Natural Diversity Database (CNDDB) version 1/2020 occurrence records maintained by the California Department of Fish and Wildlife. Species records indicate positive occurrences only; lack of occurrence data does not indicate species are not present. Some records represent historical and/or extirpated occurrences. There may be additional special-status species occurrences within this area which have not been observed or reported.

0 1.75 miles

Urban Growth Boundary
Planning Area/Sphere of Influence
County Boundary

Source: California Department of Fish and Wildlife 2020, City of Gilroy 2018, Esri 2015

Figure 3.4-2

Occurrence Records for Special-Status Species in Planning Area Vicinity

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Per these sections, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the project area and determine whether the proposed project will have a potentially significant impact on such species. Section 2080 prohibits, among other things, the "take" of state-listed threatened or endangered species. "Take" means to "hunt, pursue, catch, capture, or kill," or to attempt any of these acts. However, the CDFW has the authority to permit the "incidental take" of state-listed species, subject to certain conditions.

Under Section 3503.5 of the California Fish and Game Code, it is unlawful to take, possess, or destroy any birds in the orders of Falconformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird, except as otherwise provided by the applicable statute and regulations. California statutes also accord "fully protected" status to a number of specifically identified birds, mammals, reptiles, and amphibians. Species subject to this level of protection are listed in Sections 3505 and 3511 (birds), Section 4700 (mammals), and Section 5050 (reptiles and amphibians).

State and local public agencies are subject to Section 1602 of the California Fish and Game Code. Under this statute, the CDFW must approve any proposed activity that would substantially divert, obstruct, or alter the natural flow, or substantially modify the bed, channel, or bank of any river, stream, or lake, the purpose of which is to protect wildlife resources, through the issuance of a Streambed Alteration Agreement.

Porter-Cologne Water Quality Control Act/Water Quality Certification. The Porter-Cologne Water Quality Control Act is California's comprehensive water pollution statute, and authorizes the State to implement the federal Clean Water Act. It specifically regulates the discharge of waste that could affect the quality of the "waters of the State." The Porter-Cologne Water Quality Control Act requires that any person discharging waste that could affect State jurisdictional waters must file a report of discharge with the applicable Regional Water Quality Control Board. In turn, the Regional Water Quality Control Board determines whether a "Waste Discharge Requirements" permit is required. If an applicant proposes to discharge dredged or fill material into jurisdictional waters, Section 401 of the Clean Water Act requires that the applicant obtain a Water Quality Certification from the Regional Water Quality Control Board, to confirm that the discharge will comply with applicable effluent limitations and water quality standards.

Local Laws and Regulations

Santa Clara Valley Habitat Plan. The entire 2040 Gilroy General Plan Planning Area/Sphere of Influence including the Urban Growth Boundary is located within the boundaries of the Habitat Plan, a combined Habitat Conservation Plan and Natural Community Conservation Plan incorporating the southern portion of Santa Clara County. This area includes the cities of San Jose, Morgan Hill, and Gilroy, as well portions of unincorporated Santa Clara County. Other partners/permittees of the Habitat Plan include the County of Santa Clara, Valley Water, and Santa Clara Valley Transportation Authority.

The Habitat Plan was developed in association with the USFWS and CDFW. It is intended to provide an effective framework to protect, enhance, and restore natural resources in specific areas of Santa Clara County, while improving and streamlining the environmental permitting process for impacts to 18 covered special-status species. Partner agencies began implementing the Habitat Plan in October 2013.

According to the Habitat Plan, "conditions on urban development are limited because of the generally low biological value of resources within urban areas." However, Section 6.4.1 of the Habitat Plan identifies required conditions of permit approval that minimize biological resource impacts resulting from urban development. Condition 3, Maintain Hydrologic Conditions and Protect Water Quality, applies to urban development within the city's Urban Service Area. Condition 3 requires new urban development to comply with National Pollutant Discharge Elimination System requirements and applicable storm water quality guidelines to reduce and minimize impacts from development to aquatic species and their habitats.

Section 6.4.2 of the Habitat Plan identifies required conditions of permit approval that minimize biological resource impacts resulting from In-Stream Projects. Condition 4, Avoidance and Minimization for In-Stream Projects, requires projects to minimize impacts on riparian and aquatic habitat, and on wildlife movement. Table 6-2, Aquatic Avoidance and Minimization Measures, provides design standards for in-stream projects.

In addition, Condition 6, Design and Construction Requirements for Covered Transportation Projects, identifies design requirements to minimize the impacts of transportation projects on wildlife movement, occurrences of certain covered species, and important habitat for covered species.

Section 6.5 of the Habitat Plan, Conditions to Minimize Impacts on Natural Communities, includes Condition 11, Stream and Riparian Setbacks, that applies to all development where a stream or the stream setback overlaps with any portion of a parcel upon which development would occur. A stream is generally defined as a watercourse that flows at least periodically or intermittently through a bed or channel having banks.

Section 6.6 of the Habitat Plan contains measures to avoid and/or minimize impacts to specific covered wildlife species, and outlines the timing of species habitat surveys, pre-construction surveys, and construction monitoring. Table 6-8 of the Habitat Plan summarizes requirements for wildlife species surveys, pre-construction surveys, and construction monitoring.

City of Gilroy Municipal Code - Chapter 30.38.270: Protected Tree Removal. The city regulates the removal of protected trees and tree communities on private property. The municipal code defines a community of protected trees as "any grouping of protected trees which are ecologically or aesthetically related to each other such that the loss of several of them would cause a protected ecological, aesthetic or environmental impact in the

immediate area, as determined by a certified arborist." Heritage tree is defined as "a tree of any species with a single trunk of ninety (90) inches in circumference or more at a point four and one-half feet above the ground or with multiple trunks, two of which collectively measure seventy-two (72) inches in circumference or more at a point four and one-half feet above the ground." Indigenous tree is defined as "a tree which is native to the Gilroy region, including oaks (all types), California bay (*Umbellularia californica*), big leaf maple (*Acer macrophyllum*), madrone (*Arbutus menziesii*), California sycamore (*Platanus racemosa*), California buckeye (*Aesculus californica*) and alder (*Alnus glutinosa*)." Protected tree is defined as "any indigenous tree characterized by having a single trunk of thirty-eight (38) inches in circumference or more at a point four and one-half feet above the ground…nonindigenous tree species and orchards (including individual fruit and nut trees) are exempt from this definition…"

A permit is required by the city to remove a protected tree, greater than 25 percent of the trees within the outermost dripline of a community of protected trees, or a heritage tree. A tree removal permit application must include information to describe and justify the removal request, and a report from an arborist certified by the International Society of Arboriculture or other equivalent organization acceptable to the planning manager. Permit conditions may include planting of specific replacement trees, mitigation of visual impacts, and control of erosion.

Thresholds of Significance

The City of Gilroy CEQA thresholds of significance state that a project may have a significant effect on the environment if:

- The project would 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, regulations, or by the CDFW or USFWS. A substantial adverse effect is defined as follows:

  - A project that has the potential to result in the "taking" of a species listed, or proposed/candidate for listing, under the state and/or federal Endangered Species Acts, or protected by the Migratory Bird Treaty Act, or otherwise considered to be special-status in local plans, or to substantially modify the habitat for such species.

    There are many areas in the city where disruption/development would not create a significant impact on special-status species or other biological resources. Examples of areas where impacts are presumed to be less than significant include:

    - Small acreages (i.e., less than five acres) of non-native grassland if wildlife values are low (i.e., potential burrowing owl habitat is absent),

    - Individuals or stands of non-native trees if not used by important animal species, such as nesting raptors or other nesting birds,

- Areas of historical disturbance, such as intensive agriculture,
- Small pockets of habitats already significantly fragmented or isolated, and degraded or disturbed, and
- Areas of primarily ruderal vegetation resulting from pre-existing man-made disturbance.

- A project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS. A substantial adverse effect is defined as follows:

  A project that has the potential to adversely affect riparian habitat in the following ways:

  - Direct removal of riparian vegetation,
  - Disruption of riparian wildlife habitat, particularly animal movement/dispersal corridors and/or understory vegetation,
  - Intrusion within the upland edge of the riparian canopy (generally within 50 feet in urbanized areas and within 100 feet in rural areas, and along major rivers), leading to potential disruption of animal migration, breeding, etc. through increased noise, light and glare, and human and domestic animal intrusion,
  - Disruption of a substantial amount of adjacent upland vegetation where such vegetation plays a critical role in supporting riparian-dependent wildlife species (i.e., amphibians), or where such vegetation aids in stabilizing steep slopes adjacent to the riparian corridor, which reduces erosion and sedimentation potential, and
  - Construction activity that disrupts critical time periods (nesting, breeding) for fish and other wildlife species.

  A project that has the potential to adversely affect native grassland habitat in the following ways:

  - Removal or severe disturbance to native grassland, one-quarter acre or greater, would be considered significant. Removal or severe disturbance to a patch or patches of native grassland less than one-quarter acre, which are not clearly isolated and are a part of a significant native grassland or an integral component of a larger ecosystem, would also be considered significant.

  A project that has the potential to adversely affect native oak woodland habitat in the following ways:

- Project-related impacts may be considered significant due to changes in habitat value and species composition, such as habitat fragmentation, removal of understory, alteration to drainage patterns, disruption of the canopy, and/or removal of a significant number of trees that would cause a break in the canopy or disruption in wildlife movement in and through the oak woodland.

- A project would 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, filing, hydrological interruption, or other means. A substantial adverse effect is defined as follows.

  A project that has the potential to adversely affect wetlands in the following ways:

  - Result in a net loss of important wetland area or wetland habitat value, either through direct or indirect impacts to wetland vegetation, degradation of water quality, or threat to the continuity of wetland-dependent animal or plant species,

  - Substantially interrupt wildlife access, use, and movement/dispersal in wetland areas and between contiguous habitats through riparian areas, or

  - Diminish hydrological conditions, such as the quantity and quality of run-off, of wetland systems.

  Authorization from the USACE is required in order to engage in activities that fill or otherwise alter USACE-jurisdictional areas. Authorization can be obtained through the Individual Permit process for large projects, or through the Nationwide Permit process for projects that are of a size and extent that will result in minimal impacts to jurisdictional areas. Projects that are subject to approval of an Individual Permit would have significant adverse impacts on USACE-jurisdictional areas. Projects that are subject to approval of a Nationwide Permit may or may not have significant adverse impacts on USACE-jurisdictional areas. Some Nationwide Permits identify a limit to the size and extent of wetland impacts that can occur without any authorization required from the USACE (i.e., less than one-tenth acre). Projects with this level of impact would have no significant adverse impact. Alternatively, Nationwide Permits may require compensatory mitigation for impacts over a certain size and extent. Projects requiring mitigation to qualify for a Nationwide Permit would result in significant impacts to USACE-jurisdictional areas. The threshold of significance is defined by regulations of Section 404 of the Clean Water Act and the Nationwide Permit program.

- A project would 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. Substantial interference is defined as follows:

A project that has the potential to adversely affect wildlife movement or nursery sites in the following ways:

- Reduce or eliminate species diversity or abundance,
- Reduce or eliminate quantity or quality of nesting areas,
- Limit reproductive capacity through losses of individuals or habitat,
- Fragment, eliminate, or otherwise disrupt foraging areas and/or access to food sources,
- Limit or fragment range and movement (geographic distribution of animals and/or seed dispersal routes), or
- Interfere with natural processes, such as fire or flooding, upon which the habitat depends.

In general, any activities in or adjacent to defined wildlife movement corridors (i.e., riparian corridors, areas that are contiguous with adjacent open space areas, etc.) that could potentially disturb, restrict movement or activity, or facilitate increased predation of wildlife species would be considered a significant adverse impact.

- A project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (e.g., the City of Gilroy Municipal Code - Chapter 30.38.270: Protected Tree Removal). A significant effect would be defined as removal of any protected trees without a tree removal permit.
- A project would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Analysis, Impacts, and Mitigation

IMPACT	Adverse Effect on Special-Status Plant and Wildlife Species and Protected Nesting Birds	Less than Significant with Mitigation

Special-status plant and wildlife species with potential to occur within and in the vicinity of the Gilroy 2040 General Plan Planning Area/Sphere of Influence are identified in Tables 3.4-3 and 3.4-4, and include the Habitat Plan 18 covered species. Direct or indirect removal, disturbance, degradation, or conversion of occupied special-status species habitat(s) and/or direct injury or mortality of special-status species or protected nesting birds would result in significant environmental impacts to these species. The proposed Gilroy 2040 General Plan limits future development to areas within the Urban Growth Boundary, which substantially limits areas where significant impacts could occur. Future

development consistent with the proposed Gilroy 2040 General Plan land use designations could impact special-status plant and wildlife species, and future construction activities or vegetation removal during the bird nesting season (February 1 through August 31) could also impact nesting birds protected by the California Fish and Game Code and/or the federal Migratory Bird Treaty Act.

Gilroy 2040 General Plan

In addition to Land Use Element policies that define the types and locations of land uses allowed by the Gilroy 2040 General Plan, the following goals and policies of the proposed Gilroy 2040 General Plan Natural and Cultural Resources (NCR) Element avoid or reduce potentially significant impacts to special-status species and nesting birds. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs, for the full policy language.

Goal NCR 1. Preserve and enhance Gilroy's natural resources for current and future residents.

- NCR 1.1 Habitat Plan Compliance
- NCR 1.2 Stream Protection
- NCR 1.3 Riparian Setbacks
- NCR 1.4 Plant and Wildlife Habitats
- NCR 1.5 Open Space Access and Management
- NCR 1.6 Preservation Techniques
- NCR 1.7 Rare, Threatened, and Endangered Species
- NCR 1.8 Native Nesting Bird Protection
- NCR 1.10 Light Pollution
- NCR 1.11 Healthy Urban Forest
- NCR 1.12 Invasive Species

Policy NCR 1.1 requires compliance with the permit conditions of the Habitat Plan. Policy NCR 1.2 calls for protection of the ecological, aesthetic, and recreational value of the streams that flow through the Gilroy Planning Area. This policy also requires areas required for riparian setbacks to be dedicated to Valley Water in fee or easement, or incorporated into private open space to be preserved and maintained by future development projects. Policy NCR 1.3 requires riparian setback areas in new development, consistent with the requirements of the Habitat Plan and other city regulations. Policy NCR 1.4 calls for preservation of important plant and wildlife habitats, including streams and riparian

habitats, wildlife movement corridors, heavily vegetated hillside areas, unique ecosystems (such as oak woodlands and serpentine substrates), and significant nesting/denning sites for native wildlife, in concert with the Habitat Plan. Policy NCR 1.5 encourages the management and maintenance of public and private open space areas in a manner that ensures habitat protection, provides for public access, addresses public safety concerns, and meets low-impact recreation needs, also in concert with the requirements of the Habitat Plan. Policy NCR 1.6 calls for development and application of a variety of preservation tools to protect open space areas in and around the city (such as through dedication of open space easements), and recommends that methodologies emphasize minimizing public cost and liability exposure, encouraging private ownership and responsibility for long-term management and maintenance issues, consideration of public access issues, and ensuring preservation in perpetuity. For special-status species that are not among the 18 covered species in the Habitat Plan, Policy NCR 1.7 calls for minimization of future development in areas that support federally or state-listed rare, threatened, or endangered species. This policy requires the preparation of focused surveys per applicable regulatory agency protocols as appropriate to determine if such species occur on a given project site, as determined necessary by a qualified biologist. It also provides guidance if development of occupied habitat must occur, including full compensation for loss of habitat either on or off the site, accompanied by a long-term management plan and monitoring program. Policy NCR 1.8 calls for the protection of native nesting birds, which are protected by the Federal Migratory Bird Treaty Act and the California Fish and Game Code. Policy NCR 1.9 calls for preservation and protection of healthy oak trees and other native trees from harm or destruction during the development process. Policy NCR 1.10 encourages measures to limit light pollution from outdoor sources, and direct outdoor lighting downward and away from wildlife habitat areas. Policy NCR 1.11 calls for the maintenance and expansion of a vibrant, healthy urban forest in public street rights-of-way, parks, and other public lands and facilities through arborist-supervised tree selection and planting, pest and disease control, scheduled pruning, tree removal limitations, and systematic removal and replacement of dead or diseased trees. Policy NCR 1.12 calls for supporting efforts to eradicate non-native invasive species.

Conclusion

Implementation of these policies and implementation programs would reduce potential, significant impacts to special-status species and protected nesting birds, but not to a less-than-significant level. With implementation of the following mitigation measure, in addition to the Gilroy 2040 General Plan policies and implementation programs listed in this section, these impacts would be less than significant. The below changes in Policy NCR 1.7 require evaluating impacts to all special-status species, as required by CEQA, not to just those that are considered rare, threatened, and endangered.

Mitigation Measure

BIO-1. Modify the proposed language for Gilroy 2040 General Plan Policy NCR 1.7 (Rare, Threatened, and Endangered Species) as follows:

NCR 1.7 ~~**Rare, Threatened, and Endangered**~~ **Special-Status Species**. Special-status species are those listed as Endangered, Threatened, or Rare, or as Candidates for listing by the U.S. Fish and Wildlife Service (USFWS) and/or California Department of Fish and Wildlife (CDFW), or as Rare Plant Rank 1B or 2B species by the California Native Plant Society (CNPS). This designation also includes CDFW Species of Special Concern and Fully Protected Species. For special-status species that are not among the 18 covered species in the Habitat Plan, minimize future development in areas that support ~~State or Federally listed rare, threatened, or endangered~~ such species. Conduct focused surveys per applicable regulatory agency protocols as appropriate to determine if such species occur on a given project site, as determined necessary by a qualified biologist. If development of occupied habitat must occur, species impacts shall be avoided or minimized, and if required by a regulatory agency or the CEQA process, loss of wildlife habitat or individual plants should be fully compensated on the site. If off-site mitigation is necessary, it should occur within the Gilroy Planning Area whenever possible, with a priority given to existing habitat mitigation banks. Habitat mitigation shall be accompanied by a long-term management plan and monitoring program prepared by a qualified biologist, and include provisions for protection of mitigation lands in perpetuity through the establishment of easements and adequate funding for maintenance and monitoring. [Existing GP, 20.04, modified]

IMPACT	Adverse Effect on Sensitive Natural Communities	Less than Significant

As shown in Table 3.4-1 and Figure 3.4-1, sensitive natural communities are present within the Urban Growth Boundary, including oak woodlands, and riparian and wetland habitats. Further, as shown in Table 3.4-2, Habitat Plan sensitive land cover types are present within the Urban Growth Boundary, including serpentine bunchgrass grassland, serpentine rock outcrop, valley oak woodland, and coastal and valley freshwater marsh. Future development consistent with the Gilroy 2040 General Plan land use designations could replace these sensitive natural communities with urban development within the Urban Growth Boundary. Also, anticipated future development could indirectly reduce the habitat value of sensitive communities and land cover types not only within the Urban Growth Boundary, but also in adjacent areas in rural Santa Clara County due to multiple urbanization factors, such as introduction of human and domestic animal presence, vehicular traffic, nighttime lighting, fencing, noise, invasive species, etc. A loss (or reduction in habitat function) of sensitive natural communities including riparian habitats is considered a significant environmental impact.

However, Habitat Plan Chapter 6, Conditions on Covered Activities and Application Process, identifies conditions of permit approval related to natural communities and protected species. Condition 4, Avoidance and Minimization for In-Stream Projects, requires projects to minimize impacts to riparian and aquatic habitat. Condition 11, Stream and Riparian Setbacks, applies to all development within an Urban Service Area where a stream or stream setback overlaps with any portion of a parcel upon which development would occur. These conditions are required on a project-specific basis as contained in a project Habitat Plan permit issued by the city prior to development. They must be implemented by the project proponent as specified by the Habitat Plan project permit.

Gilroy 2040 General Plan

In addition to Land Use Element policies that define the types and locations of land uses allowed by the Gilroy 2040 General Plan, the following goals, policies, and programs of the proposed Natural and Cultural Resources (NCR) Element avoid or reduce impacts to sensitive natural communities, including riparian habitats. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs for the full policy language.

Goal NCR 1. Preserve and enhance Gilroy's natural resources for current and future residents.

- NCR 1.1 Habitat Plan Compliance
- NCR 1.2 Stream Protection
- NCR 1.3 Riparian Setbacks
- NCR 1.4 Plant and Wildlife Habitats
- NCR 1.5 Open Space Access and Management
- NCR 1.6 Preservation Techniques
- NCR 1.7 Rare, Threatened, and Endangered Species
- NCR 1.10 Light Pollution
- NCR 1.12 Invasive Species

Policy NCR 1.1 requires future development to comply with the Habitat Plan permit requirements and fees for special fee zones along with project-specific conditions to avoid and/or minimize impacts to natural communities and riparian areas. Policy NCR 1.2 calls for protection of the ecological, aesthetic, and recreational value of the streams that flow through the Gilroy Planning Area. This policy also requires riparian setback areas to be dedicated to Valley Water in fee or easement, or incorporated into private open space to be preserved and maintained by future development projects. Policy NCR 1.3 requires riparian setback areas in new development, consistent with the requirements of the Habitat Plan and other city regulations. Policy NCR 1.4 calls for preservation of important plant and wildlife habitats, including streams and riparian habitats, wildlife movement corridors, heavily

vegetated hillside areas, unique ecosystems (such as oak woodlands and serpentine substrates), and significant nesting/denning sites for native wildlife, in concert with the Habitat Plan. Policy NCR 1.5 encourages the management and maintenance of public and private open space areas in a manner that ensures habitat protection, provides for public access, addresses public safety concerns, and meets low-impact recreation needs, also in concert with the requirements of the Habitat Plan. Policy NCR 1.6 calls for development and application of a variety of preservation tools to protect open space areas in and around the city (such as through dedication of open space easements), and recommends that methodologies emphasize minimizing public cost and liability exposure, encouraging private ownership and responsibility for long-term management and maintenance issues, consideration of public access issues, and ensuring preservation in perpetuity. For special-status species that are not among the 18 covered species in the Habitat Plan, Policy NCR 1.7, as revised, calls for minimization of future development in areas that support State or Federally listed rare, threatened, or endangered species. This policy requires the completion of focused surveys per applicable regulatory agency protocols as appropriate to determine if such species occur on a given project site, as determined necessary by a qualified biologist, and provides guidance if development of occupied habitat must occur, including full compensation for loss of habitat either on or off the site, accompanied by a long-term management plan and monitoring program prepared by a qualified biologist. Policy NCR 1.8 calls for the protection of native nesting birds, which are protected by the Federal Migratory Bird Treaty Act and the California Fish and Game Code. Policy NCR 1.9 calls for preservation and protection of healthy oak trees and other native trees from harm or destruction during the development process. Policy NCR 1.10 encourages measures to limit light pollution from outdoor sources, and direct outdoor lighting downward and away from wildlife habitat areas. Policy NCR 1.11 calls for the maintenance and expansion of a vibrant, healthy urban forest in public street rights-of-way, parks, and other public lands and facilities through arborist-supervised tree selection and planting, pest and disease control, scheduled pruning, tree removal limitations, and systematic removal and replacement of dead or diseased trees. Policy NCR 1.12 calls for supporting efforts to eradicate non-native invasive species.

Conclusion

With implementation of these policies and implementation programs, potentially significant impacts to sensitive natural communities would be less than significant. No additional mitigation is required.

IMPACT	Adverse Effect on Jurisdictional Wetlands and Waterways	Less than Significant with Mitigation

Future development consistent with the proposed Gilroy 2040 General Plan land use designations could directly remove or alter wetlands and/or waterways under the jurisdiction of the USACE, CDFW, and/or RWQCB, which could result in significant

environmental impacts. Impacts related to alterations to drainage patterns, water quality, storm drainage and flooding are discussed in Section 3.9, Storm Drainage and Flooding.

As noted in Section 3.9, several major creeks/drainage channels, large wetland features, and numerous Valley Water drainage ditches are located within or traverse the Urban Growth Boundary. In addition to these features, smaller drainage and other wetland features may also be present within the Urban Grown Boundary, and could be affected by future development allowed by the Gilroy 2040 General Plan. Site-specific features would need to be identified in the field during the planning stages for future development projects.

Future development associated with the buildout projections of the Gilroy 2040 General Plan also could result in "downstream" effects to wetlands and/or waterways under the jurisdiction of the USACE, CDFW, RWQCB, and/or Valley Water during construction and operations.

On January 15, 2016, the USACE, San Francisco District, issued a "Regional General Permit" (regional permit) to the City of San José, City of Morgan Hill, City of Gilroy, County of Santa Clara, Valley Water, Santa Clara Valley Transportation Authority, and the Santa Clara Valley Habitat Agency, for impacts to Waters of the United States associated with many projects and activities covered by the Habitat Plan.

This five-year permit provides a framework for integrating and streamlining waters permitting under Section 404 of the Clean Water Act with the endangered species permitting already in place under the Habitat Plan. Seventeen (17) categories of activities are covered, setting thresholds for impacts that range from less than 0.1-acre to 0.5-acre and providing an expedited process for reviewing and processing project-specific waters permits. The regional permit represents a major milestone in the implementation of the Habitat Plan. The regional permit will help to ensure consistent and streamlined waters permitting for projects covered by the Habitat Plan that have impacts to Waters of the United States. This regional permit is only the second issued in the United States associated with an approved habitat conservation plan (the first was in East Contra Costa County). The Santa Clara Valley Habitat Agency is pursuing an In-Lieu Fee Program with the USACE-led Interagency Review Team to ensure that mitigation fees paid to the Habitat Plan will fulfill waters mitigation requirements under Section 404. To expand the streamlining of the regional permit even further, the Santa Clara Valley Habitat Agency will also be pursuing a programmatic water quality certification under the Clean Water Act Section 401 from the San Francisco Bay and Central Coast Regional Water Quality Control Boards and State Water Resources Control Board (Santa Clara Valley Habitat Agency 2020).

Gilroy 2040 General Plan

The following goals and policies of the proposed Gilroy 2040 General Plan address impacts to wetlands and/or jurisdictional waters and associated riparian habitats. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs for the full policy language.

Goal NCR 1. Preserve and enhance Gilroy's natural resources for current and future residents.

- NCR 1.1 Habitat Plan Compliance
- NCR 1.2 Stream Protection
- NCR 1.3 Riparian Setbacks
- NCR 1.4 Plant and Wildlife Habitats
- NCR 1.5 Open Space Access and Management
- NCR 1.6 Preservation Techniques
- NCR 4.7 Inter-Agency Coordination

Policy NCR 1.1 requires compliance with the permit conditions of the Habitat Plan. Policy NCR 1.2 calls for protection of the ecological, aesthetic, and recreational value of the streams that flow through the Gilroy Planning Area. This policy also requires areas required for riparian setbacks to be dedicated to Valley Water in fee or easement, or incorporated into private open space to be preserved and maintained by future development projects. Policy NCR 1.3 requires riparian setback areas in new development, consistent with the requirements of the Habitat Plan and other city regulations. Policy NCR 1.4 calls for preservation of important plant and wildlife habitats, including streams and riparian habitats, wildlife movement corridors, heavily vegetated hillside areas, unique ecosystems (such as oak woodlands and serpentine substrates), and significant nesting/denning sites for native wildlife, in concert with the Habitat Plan. Policy NCR 1.5 encourages the management and maintenance of public and private open space areas in a manner that ensures habitat protection, provides for public access, addresses public safety concerns, and meets low-impact recreation needs, also in concert with the requirements of the Habitat Plan. Policy NCR 1.6 calls for development and application of a variety of preservation tools to protect open space areas in and around the city (such as through dedication of open space easements), and recommends that methodologies emphasize minimizing public cost and liability exposure; encouraging private ownership and responsibility for long-term management and maintenance issues; consideration of public access issues; and ensuring preservation in perpetuity. Policy NCR 4.7 requires continued coordination with agencies relevant to South County's water supply and water quality, including the San Francisco Bay Regional Water Quality Control Board, the Central Coast Regional Water Quality Control Board, Valley Water, the County of Santa Clara, and the City of Morgan Hill to protect regional water quality.

Conclusion

Implementation of these Gilroy 2040 General Plan goals and policies programs would reduce these potentially significant impacts, but not to a less-than-significant level. With implementation of the following mitigation measure, in addition to the 2040 General Plan

policies listed in this section, the potentially significant impacts to jurisdictional wetlands and waterways would be less than significant.

Mitigation Measure

BIO-2. Add the following new policy to the Gilroy 2040 General Plan Natural and Cultural Resources element:

> **Assess Potential Wetland Impacts.** Applicants of projects on sites where potential jurisdictional wetlands or waterways are present shall retain a qualified biologist/wetland regulatory specialist to conduct a site investigation and assess whether wetland or waterway features are jurisdictional with regard to the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), Santa Clara Valley Habitat Plan, and/or California Department of Fish and Wildlife (CDFW). This investigation will include assessing potential impacts to wetland and riparian habitats, and determining whether any stream buffers/riparian setbacks are required by the Santa Clara Valley Habitat Plan. If a feature is found to be jurisdictional or potentially jurisdictional, the applicant shall comply with the appropriate permitting process with each agency claiming jurisdiction prior to disturbance of the feature, and a qualified biologist/wetland regulatory specialist shall conduct a detailed wetland delineation if necessary.

IMPACT	Adverse Effect on Wildlife Movement	Less than Significant

Future development consistent with the Gilroy 2040 General Plan land use designations could remove or otherwise impede regional habitat linkages that facilitate wildlife movement within the Urban Growth Boundary, such as vegetated riparian corridors along Uvas Creek and Llagas Creek. However, no development would be allowed by the Gilroy 2040 General Plan adjacent or close to this area except for a few remaining custom home lots in Eagle Ridge. Such future development could also indirectly reduce wildlife movement values of these regional habitat linkages due to multiple factors associated with nearby development, such as introduction of human and domestic animal presence, vehicular traffic, nighttime lighting, fencing, noise, invasive species, etc.

However, the Habitat Plan incorporates conditions that accommodate for wildlife movement. The primary conservation strategy of the Habitat Plan is to establish a Reserve System that protects and maintains priority habitat areas that are large enough to support sustainable populations of covered species. The western and southern portions of the Urban Growth Boundary form a border with, and in a few small areas overlap with the Habitat Plan Urban Reserve System Interface Zone. Site-specific future development projects will be evaluated during the Habitat Plan permitting process for their potential impacts on the proposed Reserve System. This Reserve System will provide linkages that sustain wildlife movement between habitat areas per the Habitat Plan Chapter 5, Conservation Strategy.

In addition, Habitat Plan Chapter 6, Conditions on Covered Activities and Application Process, identifies conditions of permit approval related to wildlife movement. Condition 4, Avoidance and Minimization for In-Stream Projects, requires projects to minimize impacts to riparian and aquatic habitat and to wildlife movement. Condition 6, Design and Construction Requirements for Covered Transportation Projects, identifies design requirements to minimize the impacts of transportation projects to wildlife movement. Condition 11, Stream and Riparian Setbacks, applies to all development within an Urban Service Area where a stream or stream setback overlaps with any portion of a parcel upon which development would occur. These conditions are required on a project-specific basis as contained in a project-specific Habitat Plan permit issued by the city prior to development. They must be implemented by the project proponent as specified by the Habitat Plan project permit.

Gilroy 2040 General Plan

The following goals and policies of the Gilroy 2040 General Plan address potentially significant impacts related to the loss of and/or reduction in habitat function of wildlife movement corridors. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs for the full policy language.

Goal NCR 1. Preserve and enhance Gilroy's natural resources for current and future residents.

- NCR 1.1 Habitat Plan Compliance
- NCR 1.2 Stream Protection
- NCR 1.3 Riparian Setbacks
- NCR 1.4 Plant and Wildlife Habitats
- NCR 1.5 Open Space Access and Management
- NCR 1.6 Preservation Techniques
- NCR 1.7 Rare, Threatened, and Endangered Species
- NCR 1.10 Light Pollution
- NCR 1.12 Invasive Species

Policy NCR 1.1 requires compliance with the permit conditions of the Habitat Plan. Policy NCR 1.2 calls for protection of the ecological, aesthetic, and recreational value of the streams that flow through the Gilroy Planning Area. This policy also requires areas required for riparian setbacks to be dedicated to Valley Water in fee or easement, or incorporated into private open space to be preserved and maintained by future development projects. Policy NCR 1.3 requires riparian setback areas in new development, consistent with the

requirements of the Habitat Plan and other city regulations. Policy NCR 1.4 calls for preservation of important plant and wildlife habitats, including streams and riparian habitats, wildlife movement corridors, heavily vegetated hillside areas, unique ecosystems (such as oak woodlands and serpentine substrates), and significant nesting/denning sites for native wildlife, in concert with the Habitat Plan. Policy NCR 1.5 encourages the management and maintenance of public and private open space areas in a manner that ensures habitat protection, provides for public access, addresses public safety concerns, and meets low-impact recreation needs, also in concert with the requirements of the Habitat Plan. Policy NCR 1.6 calls for development and application of a variety of preservation tools to protect open space areas in and around the city (such as through dedication of open space easements), and recommends that methodologies emphasize minimizing public cost and liability exposure; encouraging private ownership and responsibility for long-term management and maintenance issues; consideration of public access issues; and ensuring preservation in perpetuity. Policy NCR 4.7 requires continued coordination with agencies relevant to South County's water supply and water quality, including the San Francisco Bay Regional Water Quality Control Board, the Central Coast Regional Water Quality Control Board, Valley Water, the County of Santa Clara, and the City of Morgan Hill to protect regional water quality.

Conclusion

Overall, the loss (or reduction in habitat function) of wildlife movement corridors within the Urban Growth Boundary could result in significant environmental impacts absent compliance with the Habitat Plan. Implementation of these Gilroy 2040 General Plan policies and implementation programs in addition to Mitigation Measure BIO-1, would reduce potential, significant impacts to wildlife movement and habitat linkages/corridors to a less-than-significant level. No additional mitigation is required.

IMPACT	Adverse Effect on Regulated Trees	Less than Significant

Future development consistent with the Gilroy 2040 General Plan land use designations may, from time to time, require the removal of or result in significant damage to city-protected trees within the Urban Growth Boundary. The Gilroy Municipal Code - Chapter 30.38.270: Protected Tree Removal - regulates the removal of protected trees and tree communities on private property. A permit is required by the city to remove a protected tree, greater than 25 percent of the trees within the outermost dripline of a community of protected trees, or a heritage tree. A tree removal permit application must include information to describe and justify the removal request, and a report from an arborist certified by the International Society of Arboriculture or other equivalent organization acceptable to the planning manager. Permit conditions may include planting of specific replacement trees, mitigation of visual impacts, and control of erosion.

Gilroy 2040 General Plan

The following goals and policies of the Gilroy 2040 General Plan address potentially significant environmental impacts related to the loss or damage of protected trees. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs for the full policy language.

Goal NCR 1. Preserve and enhance Gilroy's natural resources for current and future residents.

- NCR 1.11 Healthy Urban Forest

Policy NCR 1.11 calls for the maintenance and expansion of a vibrant, healthy urban forest in public street rights-of-way, parks, and other public lands and facilities through arborist-supervised tree selection and planting, pest and disease control, scheduled pruning, tree removal limitations, and systematic removal and replacement of dead or diseased trees.

Conclusion

The city's municipal code regulates the removal of any protected trees, and implementation of the above policy and implementation program further reduces the less-than-significant impacts to regulated trees. No additional mitigation is required.

IMPACT	No Conflict with Habitat Conservation Plan	No Impact

Future development associated with buildout of the Gilroy 2040 General Plan may impact biological resources protected by the Habitat Plan. A significant adverse effect to the Habitat Plan would occur if implementation of the Gilroy 2040 General Plan would conflict with or otherwise jeopardize the successful implementation of the Habitat Plan. As noted elsewhere throughout this section, future development consistent with the Gilroy 2040 General Plan land use designations could cause significant adverse impacts to covered species, sensitive natural communities/land covers including riparian habitats, wildlife movement, etc., within the Urban Growth Boundary and adjacent 2040 Gilroy General Plan Planning Area/Sphere of Influence.

However, the Habitat Plan allows development within the Habitat Plan boundary for covered activities to proceed subject to the conditions of an approved permit issued by the local jurisdiction. Within the City of Gilroy, once an approved project-specific Habitat Plan permit is issued, that project would be deemed consistent with the habitat conservation plan and would not conflict with its conservation strategies. Applicants for future development projects will be required to comply with all applicable permit conditions of approval and fee requirements.

Gilroy 2040 General Plan

The following goals, policies, and programs of the Gilroy 2040 General Plan address impacts related to the loss of and/or reduction in habitat function of wildlife movement corridors. Refer to Appendix C, Gilroy 2040 General Plan Policies, for the full policy language.

Goal NCR 1. Preserve and enhance Gilroy's natural resources for current and future residents.

- NCR 1.1 Habitat Plan Compliance

Policy NCR 1.1 requires compliance with the permit conditions of the Habitat Plan.

Conclusion

The proposed Gilroy 2040 General Plan Policy NCR 1.1, Habitat Plan Compliance, ensures that implementation of the proposed Gilroy 2040 General Plan would not conflict with or jeopardize implementation of the Habitat Plan.

3.5 CULTURAL RESOURCES

Environmental Setting

This section addresses potential impacts of the proposed Gilroy 2040 General Plan on cultural resources within the City of Gilroy. Unless otherwise noted, the information contained within this section is largely based on the *Gilroy 2040 General Plan Background Report* (Mintier Harnish 2014). The background report is available on the city's website at http://www.gilroy2040.com/documents/. No comments regarding cultural resources were received in response to the NOP. In compliance with Senate Bill 18, the City of Gilroy initiated consultation with five Native American tribes identified by the Native American Heritage Commission. The tribal representatives contacted did not offer any comments or concerns regarding the Gilroy 2040 General Plan (Ketchum, pers. com. December 1, 2015).

Paleontological Setting

Paleontological resources are the remains or traces of prehistoric life preserved in the geological record and contribute to knowledge of the history of life on earth. Paleontological resources include fossilized remains of vertebrate organisms, fossil tracks and trackways, and plant fossils. Paleontological resources include the casts or impressions of ancient animals and plants, their trace remains (e.g., burrows and trackways), microfossils (e.g., fossil pollen and small crustaceans such as brine shrimp), and un-mineralized remains (e.g., bones of Ice Age mammals or trunks of trees).

From the Upper Cretaceous geological period (100 million years ago) through the Miocene epoch (20-5 million years ago), much of the region was covered by shallow, warm seas. Sediment washed from adjacent mountains accumulated in the valleys producing extensive terrestrial sediment deposits, within which paleontological remains are preserved. In much of the Santa Clara Valley, Holocene (last 10,000 years) sediments cover the Pleistocene-age

(1.8 million to about 10,000 years ago) sediments and sedimentary rock, which have a greater potential to contain fossils. The Holocene is the period of the Earth's history after the last major glacial period. Gilroy is mostly characterized as being underlain by Quaternary period (Cenozoic era) and Mesozoic era sedimentary rocks. Quaternary sedimentary rocks are marine gravel, sand, silt, and clay deposited mostly in valleys and lowlands and are related to the most recent Holocene and Pleistocene epochs. No known paleontological resources have been discovered in Gilroy, likely due to the presence of these relatively recent Holocene (10,000 years) deposits.

Prehistorical Setting

Prehistory in California is generally considered the time period before European contact, prior to 1769. Much of the land in the Gilroy 2040 General Plan Urban Growth Boundary has been surveyed by archaeologists. Figure 3.5-1, Archaeological Sensitivity, reflects areas within Gilroy 2040 General Plan Planning Area/Sphere of Influence, including the Urban Growth Boundary that have low, low to moderate, moderate, and high sensitivity for archaeological resources. Most of the recorded archaeological studies conducted in the area were prepared for small parcels (less than 20 acres) and have consisted mostly of studies for street or utility projects. Over two dozen prehistoric sites have been recorded or are rumored to exist within the Gilroy 2040 General Plan Planning Area/Sphere of Influence. Evidence points to a concentration of settlement along Uvas Creek and higher areas to the west and east of this drainage, although prehistoric sites may exist throughout the Gilroy 2040 General Plan Planning Area/Sphere of Influence. There is also a high potential to find prehistoric sites which have been buried by loose sediment from creeks and streams.

There is not currently enough information from previous surveys to delineate a boundary between the areas of low archaeological sensitivity in the more centralized, built-up areas of the city with the more undisturbed areas east of the city, however, lands proximate to Llagas Creek generally should be considered to be more moderate in sensitivity than low sensitivity.

The central California coast has been occupied by Native Americans for nearly 10,000 years, if not longer. The most recent Native American group to inhabit the San Francisco Bay area is the Ohlone (or by the Spanish term Costanoan) who inhabited the area between approximately 500 B.C. and 500 A.D. The Ohlone were composed of several autonomous tribelets speaking eight different but related languages. The Ohlone inhabited the San Francisco Bay region from the Golden Gate south to Monterey, and probably arrived in central California sometime after 1,500 years ago.

Linguistic evidence indicates that the ancestral Ohlone probably came from the Delta region of the San Joaquin/Sacramento River system. Their arrival in the region coincides with the appearance in the Santa Cruz region of Late Horizon artifact assemblages. Information concerning the later days of the Ohlone has been gleaned from accounts of the Spanish explorers between 1769 and 1776. Seven Franciscan missions were established in Ohlone territory between 1770 and 1797. The records of the Spanish missions, particularly baptismal

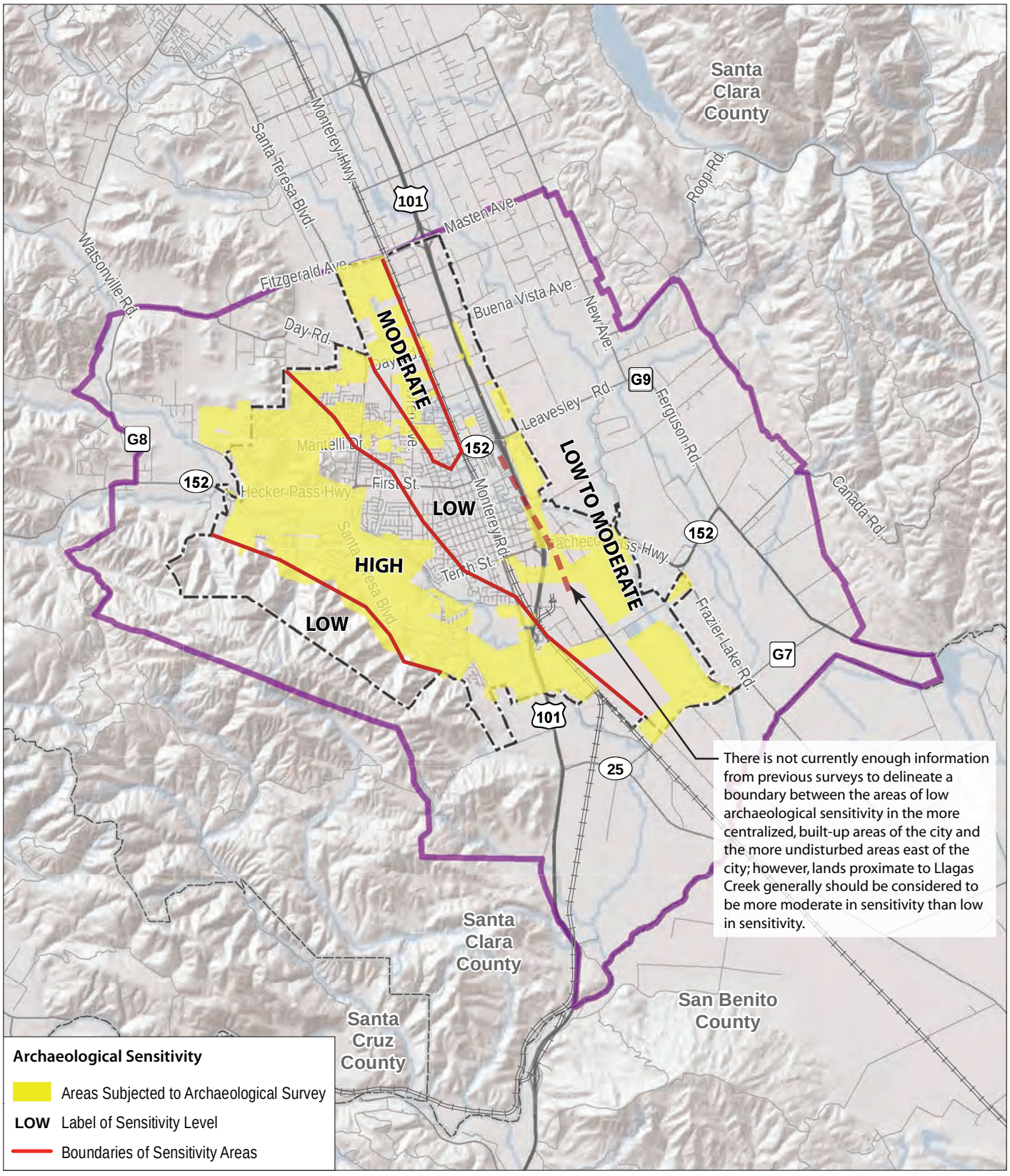
records, indicate that by 1810 the Ohlone traditional way of life had virtually ceased. During the mission period, between 1770-1835, the Ohlone population declined from more than 10,000 to as few as 2,000 individuals, with a corresponding decline of their cultural traditions. The Ohlone were hunter/gatherers who utilized native plant and animal resources. Subsistence depended heavily on acorns, the most important plant food that they gathered and consumed.

Coast live oak and valley oak acorns were preferred. Tan-bark oak was considered superior because it produced whiter meal, California black oak was also preferred. Buckeye was low on the list of consumables. Their nuts, while large, are difficult to process, requiring repeated leaching. Other seeds collected and consumed included dock, tarweed, and California foothill or grey pine. Plant foods provide important clues for archeologists as to why certain prehistoric sites are located where they are, and when they were occupied. During appropriate seasons various species of plants provided food or materials for making tools or other implements. Locations where such vegetation grew were visited seasonally or from time to time as needed.

The abundance and high quality of natural resources in the region, and the development of ingenious technological processes such as food storage, allowed the Ohlone to settle in semi-permanent villages. This allowed them to develop social structures beyond the normal parameters of hunting and gathering. These included extensive political systems, controlled production and redistribution of goods, and alliances with other groups especially for trade. The Ohlone were typically organized in basic political units of 100 to 250 members in one or more permanent villages with smaller villages in the vicinity.

Ohlone domestic structures were domed-shaped and thatched with tule, grass, or other vegetation. Assembly (dance) houses were large and centrally located in their villages, and surrounded by domestic dwellings. To make projectile points and other flaked-stone tools, the Ohlone used stone such as chert and obsidian. While chert was a locally available resource there were no deposits of obsidian within the Ohlone territory, which created large trade networks for this valuable toolstone, often from distant sources such as Annadel near Napa or Casa Diablo near Mammoth. A very important local material, highly prized by Native Americans living along the Pacific Coast, was cinnabar, obtained from deposits at New Almaden in Ohlone territory.

The Ohlone and their neighbors were among the first contacted by European settlers and the most severely impacted Native American tribes in California. Contact was firmly established in their territory with the founding of the Mission Nuestra Senora de la Soledad in 1791 and other missions in the region, notably Mission San Juan Bautista, established in 1797, and located approximately 15 miles south of Gilroy. The Ohlone, like many other California Native American tribes, suffered disenfranchisement and cultural collapse during the post-contact period. In 1971 descendants of the Ohlone united as a corporation—the Ohlone Indian tribe. This legally recognized entity received title to the cemetery at Mission San Jose.



Source: Archaeological Consulting 2014

Figure 3.5-1

Archaeological Sensitivity

Gilroy 2040 General Plan EIR

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Historical Setting

Before 1769, several exploratory voyages entered the waters of what is now California. In 1542, Juan Rodriguez Cabrillo explored San Diego, San Pedro, and the Channel Islands. Later, Sebastian Rodriguez Cermeño visited Drake's Bay in 1595 and Sebastián Vizcaino discovered Monterey Bay in 1602. The conventional date for the beginning of the Spanish Period in California is 1769, the date of the founding of the first mission in California, Mission San Diego de Alcalá. Spanish exploration of the San Francisco Peninsula and surrounding lands began in the year 1769 when Gaspar de Portola led his expedition into Alta California to locate Monterey Bay. In 1774, Fray Palou joined the expedition of Don Fernando de Rivera y Moncada to identify potential mission sites. Juan Bautista de Anza followed with an expedition in 1776.

During the era of the mission system in the late 1700s and early 1800s, Gilroy and the area around it was under the jurisdiction of Mission San Juan Bautista. After the Mexican Revolution and the secularization of the mission system, former mission lands were distributed to the "Californios", not the Native Americans, in the form of large land grants. Rancho Las Animas comprised 26,519 acres extending from the San Benito and Santa Clara County border northwest across present day U.S. Highway 101 to what is now Mount Madonna County Park in the Santa Cruz Mountains. It was originally granted to Mariano Castro in 1800. In 1835, the rancho was officially deeded to Doña Josefa Marino, the widow of Don José Marino, a large rancho owner, and subsequently to José Maria Sanchez and his heirs. In addition, some of the Gilroy area was within Rancho San Ygnacio, a 13,000-acre ranch which was given to Ygnacia Ortego in 1803, and in 1833 a part of it was inherited by Ysabel Ortego Cantua. These ranchos were used for raising cattle for hides, tallow, and jerked meat.

One of Gilroy's earliest citizens was Scotsman John Cameron, who assumed his mother's maiden name, becoming John Gilroy, and joined the crew of the armed merchant ship Isaac Todd for its departure from England when he was 19. He departed the ship when it arrived in Monterey in 1814, and became the first non-Hispanic European settler in California. He was baptized in Carmel as Juan Bautista Maria Gilroy in 1817. He then made his way to Rancho San Ysidro where he was employed by the owner, Ygnacio Ortega, as a barrel maker. Rancho San Ysidro was a 13,066-acre Spanish land concession, of which the City of Gilroy is at the center of the former rancho lands. In 1821, the same year Mexico gained its independence from Spain, Gilroy married Ygnacio Ortega's daughter Maria Clara de la Asuncion (Clara Ortega). The Gilroy family had 17 children, nine of whom survived to adulthood. John Gilroy became a naturalized Mexican citizen in 1833 and served as mayor over San Ysidro (about two miles east of U.S. Highway 101 and now known as Old Gilroy). From 1833, Gilroy traded in Monterey with what he called his "industries"– soap, onions, and flour from his gristmill.

Following the gold rush years and the annexation of California to the United States in 1848, pioneers flooded the fertile Gilroy area with farms of every size and description. Americans,

English, Irish, and Germans joined the Spanish and Mexican pioneers. These early settlers engaged in stock raising and grain farming and soon the Gilroy area, which was then known as "Pleasant Valley" and was called so during the nineteenth century, became known as the hay and grain capitol of California.

Gilroy got its start in 1850 as a stage stop along the San Jose to Monterey Road. During the 1850s, a nucleus of houses and small businesses were constructed along Monterey Road, the old El Camino Real. The town took the name of Gilroy. In order to differentiate the new town from the old settlement at San Ysidro, which was also called Gilroy, the towns were called “New Gilroy” and “Old Gilroy” for a time.

New Gilroy grew slowly. It was not until the possibility that the railroad would extend south from San José that there was an impetus for incorporation as a city. In 1869, the Santa Clara and Pajaro Railroad line was completed through the southern Santa Clara Valley, and made the community the hub of the south Santa Clara Valley. The railroad line roughly paralleled Monterey Road, connecting San José with “New” Gilroy. Gilroy quickly became the population and economic center for South County, as it was ideally located along the railroad at the crossroads of Monterey Road and the Pacheco Pass Road. In the 1860s and '70s, Gilroy also became known for raising horses. Between about 1867 and 1888, a large flourmill was constructed in New Gilroy, located to the west of San Ysidro (later to be called Old Gilroy), to process grain from the surrounding farms.

The Gilroy Hot Springs, located above Coyote Creek approximately ten miles northeast of Gilroy, were discovered in 1865 and developed into one of the leading resorts on the West Coast offering swimming, mineral baths, mud baths, massage, and health drinks along with hiking, fishing, and hunting. The Gilroy Advocate, the first newspaper, was published as a weekly from 1868 to 1946. The first church to serve the area was St. Martin's chapel on the Murphy's ranch in San Martin. Between 1855 and 1871, six different denominations established churches in Gilroy. The first school in the area was established in 1852 in the San Ysidro district and was followed in 1853 by a public school in Gilroy proper. A public high school was established in 1876. There were also many small rural schools which were operated by the county.

In 1867, a local physician, Dr. David Huber, surveyed New Gilroy and laid out the street system which consisted of a 1.5-mile rectangle known as the “old quad.” The city was incorporated as the Town of Gilroy on February 18, 1868. It was incorporated by the State of California as a charter city in 1870, at which time it had a population of 1,625 residents. The town did not double its original size until 60 years later. Gilroy, with a population of about 2,000 in 1875, was the third largest community and was the home of banks, real estate businesses, a newspaper, a flourmill, a cheese factory, a distillery, and a tobacco factory. In the 1860s and 1870s, Gilroy produced more tobacco leaf than any other place in the country and the tobacco factory was one of the largest cigar-rolling factories in the world, producing over one million cigars each month.

The early fruit and vegetable production that had been taking place along Llagas Creek near Gilroy expanded after the 1870s. This was partially due to the settlement in the area of the Sturla family, Italian immigrants who settled San Ysidro in the late 1860s. By the turn of the twentieth century, vegetable fields dominated this area, contributing to the growing food production focus of the greater Santa Clara Valley. During this late nineteenth century period, viticulture and winemaking also expanded into the Uvas Valley/greater Gilroy area.

In 1877, the Gilroy Cheese Factory Association was founded in the San Ysidro schoolhouse, and a cheese factory was subsequently constructed on land near the school. In the 1880s Gilroy produced 80 percent of California's cheese and became known as the dairy and cheese capitol, with the arrival of Swiss and other middle-Europeans. The factory at that location was short lived and by 1881, the enterprise was discontinued and moved to the City of Gilroy. In 1888, the flourmill closed, marking the end of grain production as a significant land use in South County. At the turn-of-the-century, Italians and other southern-Europeans came to Gilroy and brought row crop farming. Tomatoes, peppers, onions, and garlic were grown and canned or dehydrated in Gilroy.

The introduction of the automobile and commercial development of the trucking industry had a significant impact on settlement. Until 1910, local residents relied on horse-drawn vehicles for local transportation and the railroad, with its many depots, for longer distances. The automobile greatly extended the distance an individual could travel to acquire goods and services. As a result, railroad depots, including the one in Gilroy, continued to prosper.

Henry Miller, who was known as the "cattle king" had begun buying land in the Gilroy area in 1863. He eventually owned outright 1.5 million acres in California, Oregon, and Nevada. The 26,000 acres he owned in this area included Bloomfield Farm and his summer home on Mt. Madonna, now a county park. After Miller's death in 1916, his Gilroy-area lands were sold off in pieces. This property redistribution spurred settlement in those areas. Miller's large land holdings were put on the market and what had once been grazing land was largely developed into prune orchards, thanks to the arrival of the French prune in the 1890s. After that point in time, prunes became one of Gilroy's largest agricultural products. Apples, apricots, cherries, peaches, pears, plums, and all kinds of nut crops were grown along with prunes. During the 1920s and '30s, Gilroy became known as the prune capitol of California.

By the early 1920s, Gilroy had a population of 2,812. Gilroy's population growth between 1910 and 1930 was largely made up of immigrants from southern Italy, many of whom lived west of Gilroy along Hecker Pass Road (formerly Bodfish Mill Road) and further north along Watsonville Road in the Solis Rancho area. This area came to be known as "Little Italy" when families such as the Roffinellas, Scagliottis, Berteros, and Bonesios established their wineries in the area (Dill Design Group 2003).

The Italian Americans were also instrumental in founding the food processing industry in the Gilroy area. The Bisceglia Cannery was established in 1907 to can locally-grown tomatoes. The cannery was later bought by the Filice & Perelli Company in 1913. Filice & Perelli was a major player in the food-processing industry, and eventually merged into the California Canners and Growers Association in 1960. Until 1940, Gilroy continued to be considered the "the dairy capital of California." Beginning in the 1930s, the dairies had to undergo significant upgrades in order to meet government standards for milk processing to sell milk to Fort Ord, the major military installation located on the Monterey coast (Dill Design Group 2003).

During the early years of the twentieth century, Japanese immigrants were also attracted to the Gilroy area's growing agricultural market. Japanese Americans were the first to grow bell peppers in the area, and they grew most of the strawberries, tomatoes, celery, green peas, broccoli, garlic and other vegetable crops. By 1941, a Japanese-American grower, Kiyoshi Hirasaki, had planted 1,500 acres of garlic and was the largest grower of garlic in California. Gilroy is today still well known as the garlic capitol.

The City of Gilroy commissioned a historic resources survey in 1979-80 to identify significant historic sites and neighborhoods. Based on this survey, the City Council acted on recommendations in 1983 to designate certain significant structures, properties and neighborhoods as representative of important periods in Gilroy's past. The survey includes residential, commercial, public and religious sites and structures. Some historic sites are clustered in areas where habitation was concentrated from early settlement times (i.e., along Monterey Street, in downtown Gilroy, and to a lesser degree, scattered along Uvas Creek where agricultural pursuits were originally concentrated). In 1986, the city continued the work begun by the historic survey by further identifying historical resources within the city and taking active steps to ensure their preservation. These steps included updating historical documentation and amending the zoning ordinance to require architectural review of alterations to historic resources.

Gilroy most recently updated their historic resources inventory in the *City of Gilroy Context Statement and Historic Resources Inventory Update* (Dudek 2020).

Regulatory Setting

Federal

American Indian Religious Freedom Act and Native American Graves and Repatriation Act. As national policy, the American Indian Religious Freedom Act (1978) and Native American Graves and Repatriation Act (1990) and their amendments establish that Native American traditional religious practices and beliefs, sacred sites (including right of access), Native American remains, and the use of sacred objects shall be protected and preserved. These laws, together with environmental laws discussed below, establish the requirements for new development that may affect Native American resources.

Archeological Resources Protection Act (1979). The purpose of Archaeological Resources Protection Act is to enhance preservation and protection of archaeological resources on public and Native American lands.

Historic Sites Act (1935). This act states that it is national policy to "preserve for public use historic sites, buildings, and objects of national significance" This policy is also considered when such resources are threatened or are being considered for preservation.

National Historic Preservation Act (1966). This act was enacted to avoid unnecessary harm to historic properties. The National Historic Preservation Act includes regulations that apply specifically to Federal land-holding agencies, but also includes regulations (Section 106) that pertain to all projects funded, permitted, or approved by any Federal agency that have the potential to affect cultural resources.

National Register of Historic Places. Provisions of the National Historic Preservation Act establish the National Register of Historic Places, maintained by the National Park Service, the Advisory Council on Historic Preservation, State Historic Preservation Offices, and Federal grants-in-aid programs. Archeological and historical sites can be given a measure of protection if they are eligible for the National Register of Historic Places. The criterion most often applied to archeological sites is criterion (d), which addresses the potential of a site to yield information important in prehistory or history. The National Register of Historic Places criteria and other information issued by the Advisory Council on Historic Preservation, present the legal measures of significance relevant to cultural resources. The National Parks Service is responsible for selecting resources to be added to the National Register of Historic Places.

The National Register of Historic Places was established to recognize cultural resources associated with the accomplishments of all peoples who have contributed to the country's history and heritage. Guidelines were designed for federal and state agencies in nominating cultural resources to the national register. These guidelines are based upon integrity and significance of the resource.

Integrity is defined in *Bulletin 15: How to Apply the National Register Criteria for Evaluation*, (National Park Service 1982) as: "the authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's historic or prehistoric period. If a property retains the physical characteristics it possessed in the past then it has the capacity to convey association with historical patterns or persons, architectural or engineering design and technology, or information about a culture or peoples.

Quality of significance in American history, architecture, archaeology, engineering and culture is present in resources that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and meet at least one of the following criteria:

a. that are associated with events that have made a significant contribution to broad patterns of our history,

b. that are associated with the lives of persons significant in our past,

c. that embody distinctive characteristics of type, period, or method of construction, or that represent the work of master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, and

d. that have yielded, or are likely to yield, information important in prehistory or history."

A cultural resource that is added to the National Register of Historic Places is automatically included on the California Register of Historical Resources. However, it is possible that a cultural resource eligible for listing in the California Register of Historical Resources may not retain sufficient integrity to be listed in the National Register of Historic Places.

Secretary of the Interior's Standards for the Treatment of Historic Properties. The Secretary of the Interior is responsible for establishing professional standards and providing guidance related to the preservation and protection of all cultural resources listed in, or eligible for listing in, the National Register of Historic Places. The standards and guidelines identified in the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (National Park Service 1995) apply to all grants-in-aid projects assisted through the National Historic Preservation Fund, and are intended to be applied to a wide variety of resources, including buildings, structures, sites, objects, and districts.

State

Assembly Bill AB 52. Assembly Bill 52 added Public Resources Code Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to CEQA. In effect, this added "tribal cultural resources" to the list of cultural resources that must be considered under CEQA and imposes new requirements for tribal consultation regarding projects that may affect a tribal cultural resource. The requirements of this legislation as they pertain to CEQA compliance are included in the description of these Public Resource Code sections.

Senate Bill 18. This law requires planning agencies, during the preparation or amendment of the general plan, to provide opportunities for the involvement of citizens, California Native American tribes, public agencies, public utility companies, and civic, education, and other community groups, through public hearings and any other means the city deems appropriate.

State Laws Pertaining to the Discovery of Human Remains. Section 7050.5 of the California Health and Safety Code requires that in the event of discovery or recognition of human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie

adjacent remains until the coroner of the county in which the human remains are discovered has determined whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California Native American Heritage Commission. CEQA Guidelines (Public Resources Code Section 5097) specify the procedures to be followed in the event of discovery of human remains on non-Federal land. The disposition of Native American burials is within the jurisdiction of the Native American Heritage Commission. Upon request, the Native American Heritage Commission will provide project leaders with a list of Most Likely Descendants, who will specify treatment and disposition of any Native American remains found within a project area.

Archaeological Resources: Public Resources Code Section 21083.2 et seq., (CEQA). Under this section, lead agencies are authorized to determine whether a project may have a significant effect on unique archaeological resources for the purposes of CEQA. This section provides direction on identifying, analyzing, and mitigating impacts to known and accidentally discovered archaeological resources.

Subsection (b) states that if a project will cause damage to a unique archaeological resource, "the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state." Subsection (b) lists examples of that treatment, in no order of preference, which may include, but are not limited to, any of the following measures:

1. Planning construction to avoid archaeological sites,
2. Deeding archaeological sites into permanent conservation easements,
3. Capping or covering archaeological sites with a layer of soil before building on the sites, or
4. Planning parks, greenspace, or other open space to incorporate archaeological sites.

Subsection (d) includes provisions to minimize the extent of excavation as mitigation of "unique archaeological resources" that would be damaged or destroyed by a project. This section provides further direction on the use by a lead agency of previously-completed testing or studies that "have adequately recovered the scientifically consequential information from and about the resource" and documenting the findings and conclusions in the environmental impact report.

Subsection (g) and Subsection (h) define unique and non-unique archaeological resources. Unique archaeological resources are defined as archaeological artifacts, objects, or sites "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.

3. Is directly associated with a scientifically recognized important prehistoric or historic event or person."

Non-unique archaeological resources are defined as archaeological artifacts, objects, or sites, which do not meet these criteria. Archaeological resources that are determined to be "non-unique" require no further consideration by the lead agency.

Subsection (i) allows a lead agency to make provisions for archaeological resources accidentally discovered during construction. Provisions include, but are not limited to, the following: immediate evaluation of finds, contingency funding and time allotments sufficient to allow for recovery or to employ avoidance measures noted in Subsection (b), and allowing construction to continue on other parts of the project site while mitigation takes place.

Historical Resources: Public Resources Code Section 21084.1 et seq., (CEQA). Under Public Resources Code Section 21084.1, a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. An historical resource is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources. Historical resources included in a local register of historical resources, or deemed significant pursuant to local register criteria, are presumed to be historically or culturally significant unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant. The fact that a resource is not listed in, or determined to be eligible for listing in, the California Register of Historical Resources, not included in a local register of historical resources, or not deemed significant pursuant to criteria set forth for listing does not preclude a lead agency from determining whether the resource may be an historical resource.

Native American Resources and CEQA. For purposes of CEQA, Public Resources Code Sections 21073 and 21074 define "California Native American tribe" and "tribal cultural resources." A California Native American tribe is defined as a Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission. "Tribal cultural resources" are defined as:

1. "Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

   A. Included or determined to be eligible for inclusion in the California Register of Historical Resources.

   B. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1" (discussed below).

2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

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

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

Public Resources Code Section 21080.3.1 provides guidance for tribal consultation. Specifically, prior to the release of a CEQA document, the lead agency must consult with any Native American tribe if:

1. the California Native American tribe submits a written request to be informed by the lead agency through "formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe", and

2. the California Native American tribe provides a written response requesting consultation within 30 days of receipt of the formal notification.

    c. The Native American Heritage Commission will help the lead agency identify California Native American tribes that are traditionally and culturally affiliated with the project area.

    d. Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project is made, the lead agency shall provide formal notification to traditionally and culturally affiliated California Native American tribes that have requested notice. The written notice will include a brief description of the proposed project, project location, lead agency contact information, and a 30-day notice for the California Native American tribe to request consultation.

    e. The tribal consultation process must begin within 30 days of receiving the written consultation request from the California Native American tribe.

Public Resources Code Section 21080.3.2 allows the parties to propose mitigation measures such as those presented in Section 21084.3 that would substantially lessen the potential for significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to the resource. If requested, the consultation may include discussion about the necessary type of environmental review, the significance of tribal cultural resources, the

significance of the project's impacts on the resources, and project alternatives. The consultation is considered concluded when the parties either:

1. agree to mitigation measures or avoid a significant effect on a tribal cultural resource.
2. "acting in good faith and after reasonable effort", conclude that they cannot come to a mutual agreement.

Public Resources Code Section 21082 requires the inclusion of any agreed upon mitigation measures into CEQA documents if it is determined to lesson or avoid a significant impact on a tribal cultural resource. Where a significant impact on a tribal cultural resource is found, the lead agency's CEQA document must discuss both of the following:

1. "Whether the proposed project has a significant impact on an identified tribal cultural resource", and
2. Whether feasible or agreed upon alternatives or mitigation measures avoid or substantially lessen the impact on the identified tribal cultural resource.

Public Resources Code Section 21082 additionally requires that any information related to the location, description, and use of tribal cultural resources submitted by a tribe during the CEQA process will not be included in the CEQA document or made otherwise available to the public, unless prior written consent is received by the tribe that provided the information.

According to Public Resources Code Section 21084.2, "a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." Further, Public Resources Code Section 21084.3 states that "public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. If the lead agency determines that a project may cause a substantial adverse change to a tribal cultural resource, and measures are not otherwise identified in the consultation process provided in Section 21080.3.1 and 21080.2, the following are examples of mitigation measures that, if feasible, may be considered to avoid or minimize the significant adverse impacts:

1. Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
2. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

   A. Protecting the cultural character and integrity of the resource.

   B. Protecting the traditional use of the resource.

C. Protecting the confidentiality of the resource.

3. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

4. Protecting the resource.

CEQA Guidelines (California Code of Regulations Title 14 Section 15000 et seq.). The guidelines provide additional guidance on the treatment and evaluation of cultural resources that meet significance criteria qualifying them as "unique" or "of importance," and listed or determined eligible for listing on the California Register of Historical Resources. If a project has or might have an adverse effect or effects on unique or important cultural resources, the project is determined to have a significant effect on the environment, and the effect(s) must be mitigated. If a cultural resource is found not to be significant or unique under the qualifying criteria, it need not be considered further in the planning process.

If an archaeological site does not meet the criteria for inclusion on the California Register of Historical Resources but does meet the definition of a unique archeological resource as outlined in Public Resources Code section 21083.2, it is entitled to special protection or attention under CEQA. As noted previously, treatment options under section 21083.2 include activities that preserve such resources in place in an undisturbed state. Other acceptable methods of mitigation under Section 21083.2 include excavation and curation or study in place without excavation and curation.

CEQA Guidelines section 15064.5, subdivision (e) and California Health and Safety Code section 7050.5 require that construction or excavation be stopped in the vicinity of discovered human remains until the county coroner has been informed and has determined that no investigation of the cause of death is required. Additionally, if the remains are of Native American origin, work may not resume unless:

- the descendants of the deceased Native Americans have made a timely recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code section 5097.98,

- the Native American Heritage Commission was unable to identify a descendant or the descendant failed to make a recommendation within 24 hours after being notified by the Commission, or

- the landowner or his or her authorized representative rejects any timely recommendations of the descendent, and mediation conducted by the Native American Heritage Commission has failed to provide measures acceptable to the landowner.

The CEQA Guidelines also 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 Native American Heritage Commission.

Most Native American prehistoric sites are eligible to be included on the California Register of Historical Resources due to their age, scientific potential, and/or burial remains.

CEQA Guidelines section 15064.5(a)(i) defines an historical resource as, among other things, a resource listed or eligible for listing on the California Register of Historical Resources. In addition, a resource is presumed to constitute a historical resource if it is included in a local register of historical resources unless the preponderance of evidence demonstrates that it is not historically or culturally significant (CEQA Guidelines, Section 15064.5 (a)(2)).

Buildings that are 50 years or older are considered potentially significant historic resources under the City of Gilroy Thresholds of Significance criteria, therefore, historic evaluations must be undertaken for buildings that are 50 years of age or older to determine if they are eligible to be included on the California Register of Historical Resources.

The California Register of Historical Resources interprets the integrity of a cultural resource based upon its physical authenticity. A historic cultural resource must retain its historic character or appearance and thus be recognizable as an historic resource. Integrity is evaluated by examining the subject's location, design, setting, materials, workmanship, feeling, and association. If the subject has retained these qualities, it may be said to have integrity. It is possible that a cultural resource may not retain sufficient integrity to be listed in the National Register of Historic Places, yet still be eligible for listing in the California Register of Historical Resources. If a cultural resource retains the potential to convey significant historical/scientific data, it may be said to retain sufficient integrity for potential listing in the California Register of Historical Resources.

Under CEQA Guidelines section 15064.5, a substantial adverse change in the significance of a historical resource is defined as the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired. Material impairment occurs when a project "demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in either, the California Register of Historical Resources, a local register of historic resources, or a historical resources survey."

CEQA Guidelines section 15064.5(b)(3) also states that generally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, is considered mitigated to a less-than-significant level (National Parks Service 1995).

California Register of Historical Resources. On September 27, 1992, Assembly Bill 2881 (Statutes of 1992, Chapter 1075) was signed into law amending the Public Resources Code as

it affects historical resources (Public Resources Code §4850 et seq.) This legislation, which became effective on January 1, 1993, also creates the California Register of Historical Resources, informally the California Register. The California Register of Historical Resources is restricted to properties that are to be protected from substantial adverse change (Public Resources Code §5024.1). A historical resource may be listed in the California Register of Historical Resources if it meets any of the qualifying criteria listed in §5024.1. The California Register of Historical Resources lists properties that have been formally determined to be eligible for listing in the National Register of Historic Places, State Historical Landmarks, and listed as eligible as Points of Historical Interest. All other resources require nomination in order to be included on the register.

Local

Gilroy Municipal Code. Chapter 30 Article XXVII. Historic Site and Neighborhood Combining Districts. The intent of this article is as follows:

a. To preserve historic sites and neighborhoods that represent important elements of Gilroy's past or contribute to the community's identity or educational resources,

b. To enhance the visual character of Gilroy by encouraging and regulating the compatibility of architectural styles within historic sites and neighborhoods,

c. To identify and designate areas that have a significant concentration or continuity of sites, buildings or objects unified by past events or physical development, and

d. To encourage restoration of historic buildings and neighborhoods throughout the city.

Gilroy Historic Heritage Committee (Zoning Code Section 30.49.30 through 30.49.32). The purpose and intent of the Historic Heritage Committee is to act as an advisory board to the City Council and Planning Commission on issues relating to the identification, protection, retention and preservation of historic sites and historic neighborhoods in the City of Gilroy. The Historic Heritage Committee has the following powers and duties:

a. To recommend to the Planning Commission and City Council any building, structure or other physical object or group of buildings, structures or other physical objects that it has determined from review and investigation should be designated as a historic site or neighborhood combining district. The recommendation shall contain a brief written description of the building, structure or other physical object, and the reasons for the recommendation, drawn from the criteria specified by section 30.27.30 of the Zoning Code,

b. To maintain and update a local register of historic neighborhoods and historic sites within the city,

c. To review and investigate architectural and site review requests for property located within a historic site or neighborhood combining district, as specified by section 30.27.40 of the Zoning Code,

d. To review and investigate requests for demolition permits for any building, structure or other physical object in the city, as specified by section 30.27.50 of the Zoning Code,

e. To review all applications for permits, environmental assessments, environmental impact reports and other similar documents pertaining to historic sites and historic neighborhoods,

f. To make recommendations to the city's street naming committee regarding possible new street names from Gilroy's cultural and historical past,

g. To institute and support such programs and projects as will help make the citizens of the city and its visitors aware of its origin, development, and historic significance, and

h. To perform such other duties relating to city history and historic sites and neighborhoods as the city council requires.

Concepts and Terminology for Evaluation of Cultural Resources

The following definitions are common terms used to discuss the regulatory requirements and treatment of cultural resources:

"Cultural Resources" is a term used to describe several different types of resources, including prehistoric and historical archaeological sites, archaeological properties such as buildings, bridges, and infrastructure, and resources of importance in connection with Native Americans.

"Archaeological Resources" include pottery, basketry, bottles, weapons, weapon projectiles, tools, structures or portions of structures, pit houses, rock paintings, rock carvings, intaglios, graves, human skeletal materials, or any portion or piece of any of the foregoing items.

"Historic Properties" is a term defined by the National Historic Preservation Act as any prehistoric or historic district or site, building, structure, or object included in, or eligible for inclusion on, the National Register of Historic Places, including artifacts, records and material remains related to such a property.

"Historical Resources" is a CEQA term that includes buildings, sites, structures, objects, or districts, each of which may have historical, prehistoric, architectural, archaeological, cultural or scientific importance, and is eligible for listing or is listed in the California Register of Historical Resources.

"Paleontological Resources" includes fossilized remains of vertebrate organisms, fossil tracks and trackways, and plant fossils. A unique paleontological site would include a known area of fossil bearing rock strata.

Thresholds of Significance

The City of Gilroy CEQA thresholds of significance state that a project may have a significant effect on the environment if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5,
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines section 15064.5, or
- Disturb any human remains, including those interred outside of formal cemeteries.

Analysis, Impacts, and Mitigation

POTENTIAL IMPACT	Adverse Change in the Significance of a Historic Resource	Less than Significant with Mitigation

Future development consistent with the Gilroy 2040 General Plan land use designations would involve construction activities including site preparation and grading and modification to potential and known historically significant resources. Construction activities could result in a significant change to historical resource or its surroundings to the extent that it would no longer meet the eligibility criteria for inclusion on the National Register of Historic Places, the California Register of Historical Resources, or the city's Historic Resources Inventory, which would be a significant environmental impact. Demolition of significant historic structures or historically significant archaeological resources, or changes to historic resources that adversely affect the resource's historical significance, is a significant, adverse environmental impact.

Gilroy 2040 General Plan Policies

The following Gilroy 2040 General Plan goals and policies may identify and protect significant historic resources. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs, for the full policy language.

Goal NCR 5: Encourage the preservation of historic and culturally significant buildings, sites, and resources to enrich the sense of place and appreciation of the city's history.

- NCR 5.1 Historic Structures and CEQA
- NCR 5.2 Historic and Prehistoric Archeological Resources and CEQA
- NCR 5.3 Archaeological Resources Protection
- NCR 5.4 Historic Preservation
- NCR 5.5 Cultural Resources Inventory

- NCR 5.6 Preservation Funding Incentives
- NCR 5.7 Mills Act Contracts
- NCR 5.8 Historic Character
- NCR 5.9 Adaptive Reuse
- NCR 5.10 Historic Building Demolition
- NCR 5.11 Non-Conforming Uses in Historic Structures

The Gilroy 2040 General Plan Policies NCR 5.1, 5.4, 5.8, and 5.9 provide protection of potentially historically significant resources that are 45 years or older by requiring a historic report or other substantial evidence that a structure is not historically significant, and evaluation of alternatives to the demolition of significant historical structures. Policies NCR 5.6 and NCR 5.8 require that historically and architecturally significant buildings, archaeological sites, and other landmarks that give residents a connection with the past should be preserved and that private preservation efforts are encouraged. The old downtown section of Monterey Street is described as the focal point for community identity, providing a "sense of place" and feeling of historic continuity for Gilroy residents. Preservation of the downtown will be of the utmost importance whenever changes in use are considered in the downtown area. Policies NCR 5.6 and NCR 5.7 encourage the acquisition of funds to provide financial incentives to preserve historically significant buildings. Policies NCR 5.2 and NCR 5.5 help to ensure known historical resources are identified prior to development by requiring the development of and regular updates to an inventory of cultural resources. Future development within the Urban Growth Boundary would comply with these General Plan policies and implementation programs in addition to federal, state, and local regulatory standards. Implementation of these policies and implementation programs could reduce significant impacts to historic resources, but not to a less-than-significant level.

Goal NCR 5 encourages, but does not require the preservation of historic and culturally significant sites and resources. Policy 5.10 allows the demolition of historically significant buildings. Implementation Program 7 requires publication of a cultural resource inventory. While this is appropriate for historic buildings, it is not appropriate for historic archaeological resources. As they are currently written, Goal NCR 5, Policy NCR 5.5, and Policy NCR 5.10 do not adequately protect historic resources, and Implementation Program 7 could result in significant impacts to historically significant archaeological resources by publicizing their locations and increasing their vulnerability to theft, damage or vandalism.

Implementation of the following mitigation measures, in addition to compliance with the general plan policies listed above, would reduce these potential, significant impacts to a less-than-significant level. Regarding Policy NCR 5.10, Historic Building Demolition, in

accordance with CEQA, a historically significant building can only be demolished after preparation of an EIR, with the City Council making the appropriate findings and statement of overriding considerations regarding the project.

Mitigation Measure

CR 1. To reduce the likelihood of impacts to significant historic structures and historic archaeological resources, as well as unique and tribal archaeological resources resulting from publication of the locations of these culturally significant resources, the following modifications shall be made to Gilroy 2040 General Plan Goal NCR 5, Policy NCR 5.2, Policy NCR 5.5, and Implementation Program 7:

Goal NCR 5 ~~Encourage the preservation of~~ Preserve historic and culturally significant buildings, sites, and resources to enrich the sense of place and appreciation of the city's history.

Policy NCR 5.5 ~~Cultural~~ Historic Resources Inventory. Maintain and periodically update the city's inventory of historically and culturally significant buildings to meet current State and Federal historic preservation guidelines.

NCR 5.10 Historic Building Demolition. Prior to approving the demolition of historically significant buildings, evaluate alternatives including structural preservation, relocation or other mitigation in an Environmental Impact Report (EIR), and demonstrate that financing has been secured for replacement use.

Implementation Program 7, ~~Cultural~~ Historic Resources Inventory. Maintain and update every five years, the historic resource inventory to evaluate, register, and protect Gilroy's historic resources. The inventory should be publicly accessible and regularly updated.

Conclusion

Implementation of mitigation measure CR-1, in addition to compliance with the general plan policies listed above, mitigate potential significant impacts to historically significant resources to ensure impacts are less than significant.

POTENTIAL IMPACT	Adverse Change in the Significance of a Unique Archaeological Resource	Less than Significant with Mitigation

Future development consistent with Gilroy 2040 General Plan land use designations within the Urban Growth Boundary would include grading, earthmoving, and compaction activities which have the potential to destroy or substantially alter subsurface archeological resources during these activities. Disturbance of or damage to previously identified or unidentified archaeological and/or cultural resources or human remains would be considered a significant impact.

As shown in Figure 3.5-1, Archaeological Sensitivity, there is the potential for sensitive archaeological resources to exist in the Gilroy area. Information available from previous surveys is not sufficient to accurately delineate a boundary between the areas of low archaeological sensitivity in the more centralized, built-up core of the city and the more undisturbed areas east of the city, most of which is outside the Urban Growth Boundary. As illustrated by Figure 3.5-1, lands in the western portion of the city in proximity to the Uvas Creek corridor are considered to have high archaeological sensitivity. Further, over two dozen prehistoric sites have either been recorded or are rumored to exist within the Planning Area/Sphere of Influence and the Urban Growth Boundary, which may be unique resources and thus are potentially significant. As such, it is also likely that previously know or unidentified archaeological sites may be found during future development of the land uses proposed by the Gilroy 2040 General Plan. Impacts to historic or unique archaeological resources are a significant, adverse, environmental impact.

Gilroy 2040 General Plan

The Gilroy 2040 General Plan includes the following goals and policies to identify and strive to possibly protect known and previously unidentified historic and prehistoric archeological resources, including human remains. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs, for the full policy language.

Goal NCR 5: Encourage the preservation of historic and culturally significant buildings, sites, and resources to enrich the sense of place and appreciation of the city's history.

- NCR 5.2. Historic and Prehistoric Archeological Resources and CEQA
- NCR 5.3. Archaeological Resources Protection
- NCR 5.4. Historic Preservation

Goal NCR 5 encourages the protection or preservation of historic and culturally significant sites and resources. NCR Policies 5.2 and 5.3 ensure that a records search for known historic and prehistoric archaeological resources is performed prior to ground-disturbing activities and that, in the event an unknown archaeological resource is discovered during excavation, the developer complies with applicable state laws regarding the treatment of the resource.

Implementation Program 7 requires publication of known resource locations. In order to prevent the pilfering of historically significant archaeological resources, including tribal sacred sites and Native American burials, and to treat these sites with the appropriate dignity and respect required by CEQA, publication of the locations of archaeological resources is prohibited by law.

As they are currently written, Goal NCR 5, Policy NCR 5.2, and Policy NCR 5.3, do not adequately protect unique archaeological resources, and Implementation Program 7 could result in significant impacts to historic archaeological resources by publicizing their locations and increasing their vulnerability to theft, damage or vandalism.

Implementation of the following mitigation measures, in addition to compliance with the general plan policies listed above, would reduce these potential significant impacts to a less-than-significant level.

Mitigation Measure

CR 2. To reduce the likelihood of significant impacts to unique archaeological resources resulting from disturbance and/or publication of the locations of these culturally significant resources, the following modifications shall be made to Gilroy 2040 General Plan Goal NCR 5, Policy NCR 5.2, Policy NCR 5.5, and Implementation Program 7:

Goal NCR 5 ~~Encourage the preservation of~~ Preserve historic and culturally significant buildings, sites, and resources to enrich the sense of place and appreciation of the city's history.

Policy NCR 5.2 Historic and Prehistoric Archaeological Resources and CEQA. Discretionary projects subject to the California Environmental Quality Act (CEQA) which ~~will require a records search from the Northwest Information Center to determine if there are any known resources within a project area. If the results of the records search indicate the potential existence of historic or pre-historic archaeological resources on the project site, preparation of an archaeological survey will be required.~~ include disturbance of the existing ground surface of the project site will require an archaeological survey and records search if the project site is located in a moderate to high archaeological sensitivity zone as identified on Figure 3.5-1 of the General Plan EIR, or if other evidence suggests the project site to be archaeologically sensitive.

Policy NCR 5.5 ~~Cultural~~ Historic Resources Inventory. Maintain and periodically update the city's inventory of historically and culturally significant buildings to meet current State and Federal historic preservation guidelines.

Implementation Program 7, ~~Cultural~~ Historic Resources Inventory. Maintain and update every five years, the historic resource inventory to evaluate, register, and protect Gilroy's historic resources. The inventory should be publicly accessible and regularly updated.

Conclusion

Implementation of mitigation measure CR-2 in addition to compliance with the general plan policies listed above would assist in mitigating potentially significant impacts to unique archaeological resources, and help to ensure significant impacts are less than significant.

POTENTIAL IMPACT	Disturb Native American Human Remains	Less than Significant with Mitigation

Future development allowed by the Gilroy 2040 General Plan would involve construction activities, including site preparation and grading, that could result in the disturbance of undiscovered human remains. Disturbance to Native American human remains is a significant, adverse environmental impact.

Gilroy 2040 General Plan

The Gilroy 2040 General Plan includes the following goal and policies to protect known and previously unidentified historic and prehistoric archeological resources, including human remains. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs, for the full policy language.

> **Goal NCR 5**: Encourage the preservation of historic and culturally significant buildings, sites, and resources to enrich the sense of place and appreciation of the city's history.
>
> - NCR 5.2. Historic and Prehistoric Archeological Resources and CEQA
> - NCR 5.3. Archaeological Resources Protection
> - NCR 5.4. Historic Preservation

NCR Policies 5.2 and 5.3, and the related implementation program identified above, apply to the protection of archaeological resources, and address inadvertent discovery of human remains. The evaluation of new development under CEQA includes analysis of potential impacts on human remains. As a result, implementation of these policies would serve to lessen potential adverse changes to the significance of these resources. If human remains are discovered during construction, all construction and excavation activity would cease, pursuant to Section 7050.5 of California's Health and Safety Code. If the remains are of Native American descent, a series of actions would be triggered to identify and appropriately treat the remains, including the coroner's notification of the Native American Heritage Commission within 24 hours, which in turn would inform a most likely descendent pursuant to Section 5097.98 of the Public Resources Code.

Goal NCR 5 encourages, but does not require the protection or preservation of historic and culturally significant sites and resources. Additionally, policy NCR 5.5 and its Implementation Program 7 also require publication of known resource locations. In order to prevent the pilfering of historically significant archaeological resources, including tribal sacred sites and Native American burials, and to treat these sites with the appropriate dignity and respect mandated by CEQA, publication of the locations of archaeological resources is prohibited by law. As they are currently written, Goal NCR 5 and implementation of policy NCR 5.5 and Implementation Program 7 could result in significant

impacts to historically significant archaeological resources by publicizing their locations and increasing their vulnerability to theft, damage or vandalism.

Conclusion

Implementation of mitigation measure CR-1 and CR-2 in addition to compliance with the general plan policies listed above would mitigate potential significant impacts of disturbing Native American human remains to a less-than-significant level.

3.6 GEOLOGIC HAZARDS

Unless otherwise noted, the information contained within this section is largely based upon information included in the *Gilroy 2040 General Plan Background Report* (Mintier Harnish 2014), and *City of Gilroy 2002/2020 General Plan EIR*. The background report is available on the city's website at http://www.gilroy2040.com/ documents/. This section also includes general geological and soils information from the United States Geological Survey and the United States Department of Agriculture's Natural Resource Conservation Service.

Concerns regarding potential impacts of ground subsidence, which are related to soils and geology, were raised by the comments on the NOP submitted by Save Open Space Gilroy.

Environmental Setting

Geologic Environment

The City of Gilroy is located in southern Santa Clara County at the southern end of the San Francisco Bay Area within the Coast Ranges Geomorphic Province of California. The central part of the county contains the Santa Clara Valley, which is oriented northwest-southeast and is flanked on the east by the Diablo Mountain Range and on the west by the Santa Cruz Mountains.

The eastern half of the county includes ridges and valleys of the Diablo Mountain Range, which is generally oriented northwest-southeast. Ridge crests in the Diablo Mountain Range have elevations of 2,000 to 4,000 feet above mean sea level. The highest point is Copernicus Peak near Mount Hamilton, at 4,372 feet. The Santa Cruz Mountains cover the extreme western part of the county and are also oriented northwest-southeast. The valley varies in width from about 16 miles at the north end to about two miles at the south end. The valley bottom is generally flat with slope gradients of less than five percent except where scattered small hills and stream courses provide topographic relief.

Soils

The United States Department of Agriculture Natural Resources Conservation Service Soils has mapped 53 soil types within the Urban Growth Boundary. All soils are of Quaternary age and characterized as clay loam, silty clay loam, silt loam, gravelly loam, fine sandy loam, silty clay, and loam. Table 3.6-1, Gilroy Urban Growth Boundary Soils Engineering Characteristics, summarizes the characteristics and constraints of the ten most prevalent soil

series that occur within the Urban Growth Boundary. Soils within these series comprise nearly 79 percent of all soils within the Urban Growth Boundary.

Table 3.6-1 Gilroy Urban Growth Boundary Soils Engineering Characteristics

Soil Series	Shrink-Swell Potential	Erosion Hazard	Drainage	Acres	Percent of Urban Growth Boundary
Campbell Series (less than 2 percent slopes) silty clay loam, silty clay loam, clay substratum, silty clay, muck substratum	Moderate to High	Slight	Somewhat poorly drained	1,341.2	11.4
Gilroy Series (5 to 75 percent slopes) clay loam	Moderate	Very Severe	Well drained	410.4	3.4
Los Gatos Gravelly Loam Series (50 to 75 percent slopes)	Moderate	Very Severe	Well drained	1,094.9	9.3
Pacheco Series (less than 2 percent slopes) silt loam, drained, clay loam, gravelly substratum	Low to Moderate	Slight	Poorly drained	124.3	1.0
Pleasanton Series (0 – 15 percent slopes) loam, gravelly loam	Moderate	Slight	Well drained	2,466.1	20.0
San Andreas Series (15 – 75 percent slopes) fine sandy loam, eroded	Low	Moderate to Very Severe	Well drained	423.5	3.6
San Ysidro Series (0 – 9 percent slopes) loam, loam, acid variant	Moderate to High	Slight	Moderately well drained	1,180.2	10.0
Sunnyvale Silty Clay (less than 2 percent slopes)	High	Slight	Poorly drained	425.0	3.6
Yolo Series (0 -9 percent slopes) loam, silty clay loam	Moderate	Slight	Well drained	1,528.5	12.9
Zamora Series (0 – 9 percent slopes) loam, clay loam	Moderate	Slight	Well drained	502.5	4.2
All others	Varies	Varies	Mostly well drained	2,266.8	19.2

Source: United States Department of Agriculture Natural Resources Conservation Service 2015
Soil Survey of Eastern Santa Clara County, California, United States Department of Agriculture Natural Resource Conservation Service 1974

The distribution of soil types within the Urban Growth Boundary are illustrated in Figure 3.2-3, Soils Map, presented in Section 3.2 "Agricultural Resources." The Pleasanton, San Ysidro, and Zamora soil series consist of well-drained gravelly loams, clay loam and loams located on older alluvial fans in the northern, western, and central portions the Urban Growth Boundary. Soils of these series can be found in areas with nearly level topography and on slopes. The Campbell and Pacheco series along with Sunnyvale Silty Clay are found in the eastern to southeastern portion of the Urban Growth Boundary and are characterized by nearly level, poorly drained clays to clay loams located in low positions on alluvial plains. The Yolo series soils are located on alluvial plains and fans found along Uvas Creek and in the central and southern portion of the Urban Growth Boundary. Yolo series soils consist of well-drained loams and silty clay loams. In the hilly areas the Gilroy Series and Los Gatos Gravelly Loam are found predominately on hillsides in the southern portion of the Urban Growth Boundary. The San Andreas Series is primarily found in the hills located within the northwestern portion of the Urban Growth Boundary. Soil types within this series are well drained clay, fine sandy loam or gravelly loam.

Seismic Environment

The San Francisco Bay region is one of the most seismically active regions in the United States. The area is dominated by a complex system of faults associated with the motion between the Pacific and North American crustal plates. Three major active faults cross Santa Clara County: San Andreas, Calaveras, and Hayward faults. Each of these faults has generated significant earthquakes throughout recorded history. In addition, other active secondary faults and potentially active faults are located within the county's borders, including the eastern branch of the Carnadero Fault which crosses the Urban Growth Boundary (County of Santa Clara 2015). Recent seismic activity on the Carnadero Fault is unknown (United States Geological Survey 1997). The closest active faults to Gilroy are the San Andreas, Calaveras, and Sargent faults. Figure 3.6-1, Regional Geologic Faults in the Vicinity of Gilroy, depicts the fault zones and fault traces for these faults.

Fault zones are designated under the Alquist-Priolo Earthquake Fault Zoning Act to prevent the construction of habitable structures on the surface traces of active faults. The Gilroy quadrangle has not yet been mapped; however, the County of Santa Clara has mapped Fault Rupture Hazard Zones inside the boundaries of the Gilroy 2040 General Plan Planning Area/Sphere of Influence in the vicinity of the Sargent Fault, the Coyote Creek Fault, and the secondary Carnadero Fault. The Carnadero Fault crosses into the Urban Growth Boundary (County of Santa Clara 2015). Regional geologic faults in the vicinity of Gilroy are summarized in Table 3.6-2, Late Quaternary Faults in the Vicinity of Gilroy.

Both the San Andreas and Calaveras faults are defined as "active" by the State Department of Conservation, which means they have shown evidence of fault rupture within the past 11,000 years. The most active fault in the vicinity of Gilroy is the San Andreas Fault. The Santa Cruz Mountains segment of this fault is located approximately 5.5 miles southwest of the Gilroy 2040 General Plan Planning Area/Sphere of Influence. The San Andreas Fault

forms a boundary between major subsurface rock formations (called basement formations), with granitic and metamorphic basement rocks of the Salinian Block to the southwest and Franciscan Formation mixture to the northeast. In lower areas, these formations are overlain by Quaternary marine and non-marine deposits (with some Pliocene and/or Pleistocene nonmarine sediments). This seismically active area also includes other major, active strike-slip faults, including the Calaveras Fault.

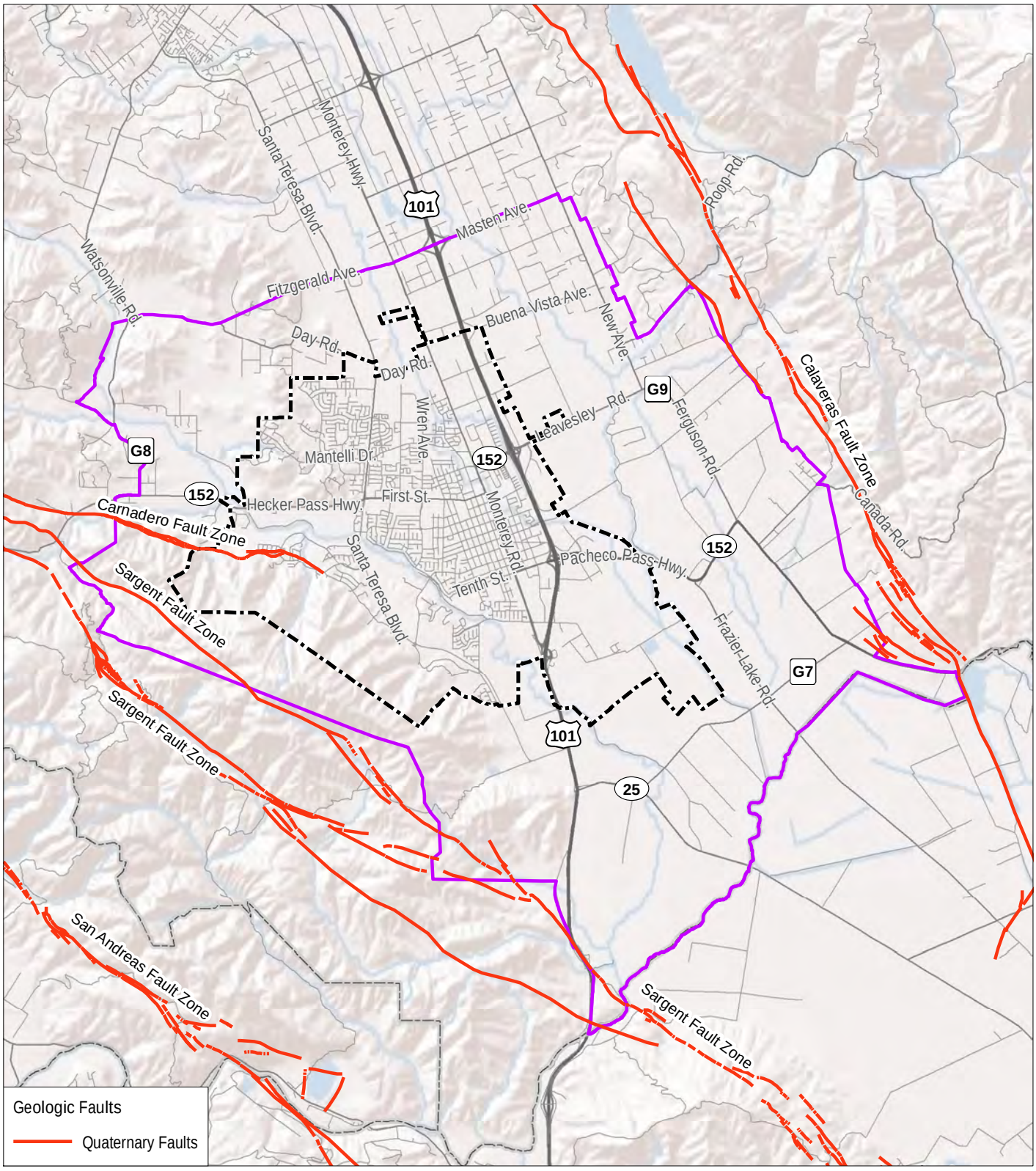
Table 3.6-2 Late Quaternary Faults in the Vicinity of Gilroy

Fault	Distance[1]	Activity[2]	Classification[3]	Earthquake Magnitude[4]
Calaveras, Southern Segment	4 miles to the east-northeast	<150	Active	5.8
Sargent Fault Zone, Southeastern Section	4 miles to the southwest	<15,000	Recently Active	6.8
San Andreas Fault, Santa Cruz Mountains Segment	5.5 miles west-southwest	<150	Active	7.0
San Andreas Fault, Creeping Segment	10 miles southwest	<150	Creeping	6.2
Zayante-Vergeles Fault	11 miles west	<15,000	Potentially Active	7.0
Quien Sabe Fault	12 miles southeast	<15,000	Potentially Active	6.4

Source: Department of Conservation, Division of Mines and Geology, *Fault Activity Map of California and Adjacent Areas*, 1994.
Note:

1. Distance from Gilroy
2. Most recent activity in years. Defines one of two time categories in which the most recent prehistoric surface-rupturing or surface-deforming earthquake occurred based on geologically recognizable evidence of faulting, folding, or liquefaction. The categories are (1) Historic (<150 years) and (2) latest Quaternary (<15 ka).
3. An "active" fault is defined by the State of California as a fault that has had surface displacement within Holocene time (approximately the last 10,000 years). A "potentially active" fault is defined as a fault that has shown evidence of surface displacement during the Quaternary (last 1.6 million years), unless direct geologic evidence demonstrates inactivity for all of the Holocene or longer.
4. Anticipated Maximum Moment Magnitude based on California Geological Survey (CGS) Appendix A – 2002 California Fault Parameters (Cao et al., 2003).

The Calaveras Fault extends for almost 100 miles from where it splays away from the main branch of the San Andreas Fault near Paicines (south of Hollister) northward into the Pleasanton-San Ramon Valley. The southern section of the Calaveras Fault extends northward from Hollister through southern Santa Clara Valley and enters the western foothills of the Diablo Mountain Range east of Gilroy. The Sargent Fault, also located northeast of Gilroy 2040 General Plan Planning Area/Sphere of Influence, has significant potential to cause seismic shaking. United States Geological Survey data indicates the probability of a 6.7-magnitude or greater earthquake on the Hayward Fault is 31 percent and on the San Andreas is 21 percent in the next two decades. The United States Geologic Survey data also indicates the probability of a 6.7-magnitude or greater earthquake on the Calaveras Fault is seven percent in the next two decades.



Source: U.S. Geological Survey 2010, Esri 2015

Figure 3.6-1

Regional Geologic Faults in the Vicinity of Gilroy

Gilroy 2040 General Plan EIR

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Seismicity

Two basic types of geologic hazards exist in Gilroy: (1) hazards related to seismic activity, and (2) geotechnical hazards related to surface soil instability. Seismic hazards potentially affecting Gilroy include ground shaking, ground rupture, and ground failure, including liquefaction and lateral spreading. The degree of hazard depends on the location of the seismic epicenter, the magnitude and duration of ground shaking, topography, groundwater conditions, and type of building construction. The level of geotechnical hazard is considered minor to moderate in the City of Gilroy.

Regional Faults and Historic Earthquakes. Gilroy is situated in both the Gilroy and Chittenden quadrangles. Seismic Hazard Zones are mapped by the State Geologist to assist local governments in land use planning. Areas within the Gilroy 2040 General Plan Planning Area/Sphere of Influence have not yet been mapped. The Sargent, San Andreas, and Calaveras faults are the three most notable regional faults. Each of these faults is considered a major active fault and has produced earthquakes within the last 200 years. The strongest earthquake for the region can be expected from the San Andreas Fault. Table 3.6-3, Historic Earthquakes near Gilroy, lists recorded earthquakes of Magnitude 6.0 or greater within 50 kilometers of Gilroy.

Table 3.6-3 Historic Earthquakes near Gilroy

Year	Location	Magnitude
1836	Monterey – Santa Clara	6.4
1840	San Juan Bautista	6.5
1864	Southeast of San Jose	6.1
1865	Santa Cruz Mountains	6.5
1881	Western San Joaquin Valley	6.3
1883	San Juan Bautista	6.0
1890	Pajaro Gap	6.3
1897	Gilroy	6.3
1899	Watsonville	6.0
1903	San Jose	6.1
1903	San Jose	6.2
1911	Southeast of San Jose	6.4
1984	Morgan Hill	6.2
1989	Loma Prieta	6.9

Source: California Department of Conservation 2020

Seismic Hazards

Surface Rupture. Surface rupture is the actual breaking apart of the ground during an earthquake and generally occurs in the area directly above an active fault trace. Areas within a state-designated Earthquake Fault Zone require special studies to evaluate the potential for surface rupture to ensure that no structures intended for human occupancy are constructed across an active fault. No active earthquake faults appear to cross, or be located within the Urban Growth Boundary, however, the Carnadero Fault, which is not an active fault, extends into the Urban Growth Boundary.

Fault Creep. Fault displacement can occur through slow, persistent movement called "fault creep," which occurs over time outside of actual earthquake events on the identified fault. Damage by fault creep usually is expressed by breaks or bends in walls, fences, railways, pipelines, or other linear structures, cracks in roads or sidewalks, or tilting, cracking, or rotation of buildings. "Co-seismic creep" can occur when an earthquake on another fault triggers creep on the identified fault.

Ground Shaking. Ground shaking is the most widespread cause of earthquake damage. Most loss of life and injuries during an earthquake are related to the collapse of buildings and structures, with older buildings constructed of unreinforced masonry being among the most vulnerable. The intensity of the ground shaking at a particular site depends on characteristics of the earthquake source (magnitude, location, and area of causative fault surface), distance from the fault, and amplification effect of local geologic deposits. Magnitude is a measure of the energy released by an earthquake, which is assessed by seismographs. Intensity is a subjective measure of the perceptible effects of seismic energy at a given point and varies with distance from the epicenter and local geologic conditions.

Earthquake intensity in a given locality is typically measured using the Modified Mercalli Intensity (MMI) Scale, with values ranging from I to XII. The most commonly used adaptation covers the range of intensities from I (which would be felt by very few people) to XII (which would be total damage with objects thrown into the air). While an earthquake has only one magnitude, it can have several intensities, which typically decrease with distance from the epicenter. Table 3.6-4, Approximate Relationships Between Earthquake Magnitude and Intensity, defines these intensities in more detail.

Liquefaction. Liquefaction is the temporary transformation of loose, saturated granular sediments from a solid state to a liquefied state ("quicksand") as a result of seismic ground shaking. In the process, the soil undergoes temporary loss of strength, which commonly causes ground displacement or ground failure. Soils susceptible to liquefaction are sands of low to medium relative density, relatively free of silt and clay, and saturated. Liquefaction variables include duration of earthquake loading, earthquake acceleration, depth to groundwater, and the potential influence of man-made structures. Liquefaction can cause severe damage to buildings, including tilting and other non-uniform settlement. Since

saturated soils are a necessary condition for liquefaction, soil layers in areas where the groundwater table is near the surface have higher liquefaction potential than those in which the water table is located at greater depths.

Table 3.6-4 Approximate Relationships Between Earthquake Magnitudes and Intensity

Richter Scale Magnitude	Maximum Expected Intensity (MMI)	Effects
1.0 – 3.0	I	Not felt except by a very few persons under especially favorable conditions.
3.0 - 3.9	II - III	Felt only by a few persons at rest, especially on upper floors of buildings. Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
4.0 - 4.9	IV - V	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed, walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably. Felt by nearly everyone, many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
5.0 – 5.9	VI - VII	Felt by all, many frightened. Some heavy furniture moved, a few instances of fallen plaster. Damage slight. Damage negligible in buildings of good design and construction, slight to moderate in well-built ordinary structures, considerable damage in poorly-built or badly-designed structures, some chimneys broken.
6.0 – 6.9	VIII - IX	Damage slight in specially-designed structures, considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. Damage considerable in specially-designed structures, well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
7.0 and higher	VIII or higher	Some well-built wooden structures destroyed, most masonry and frame structures destroyed with foundations. Rails bent. Few, if any (masonry) structures remain standing. Bridges destroyed. Rails bent greatly. Damage total. Lines of sight and level are distorted. Objects thrown into the air.

Source: United States Geologic Survey 2015

The County of Santa Clara has mapped these seismic hazard zones as presented on Figure 3.6-2, Liquefaction Hazard Zones. Areas with potential liquefaction hazards within the Urban Growth Boundary are concentrated along Uvas Creek from Hecker Pass Highway to the southeast toward U.S. Highway 101, and other areas east of U.S. Highway 101.

Lateral Spreading. Lateral spreading is a form of horizontal displacement of soil toward an open channel or other "free" face, such as an excavation boundary. Lateral spreading can

result from either the slump of low cohesive and unconsolidated material or more commonly by liquefaction of either the soil layer or a subsurface layer on a slope. Earthquake shaking leading to liquefaction of saturated soil can result in lateral spreading where the soil undergoes a temporary loss of strength. Areas within the Urban Growth Boundary that are vulnerable to liquefaction hazards (refer to Figure 3.6-2) would also be potentially susceptible to lateral spreading.

Soil Constraints

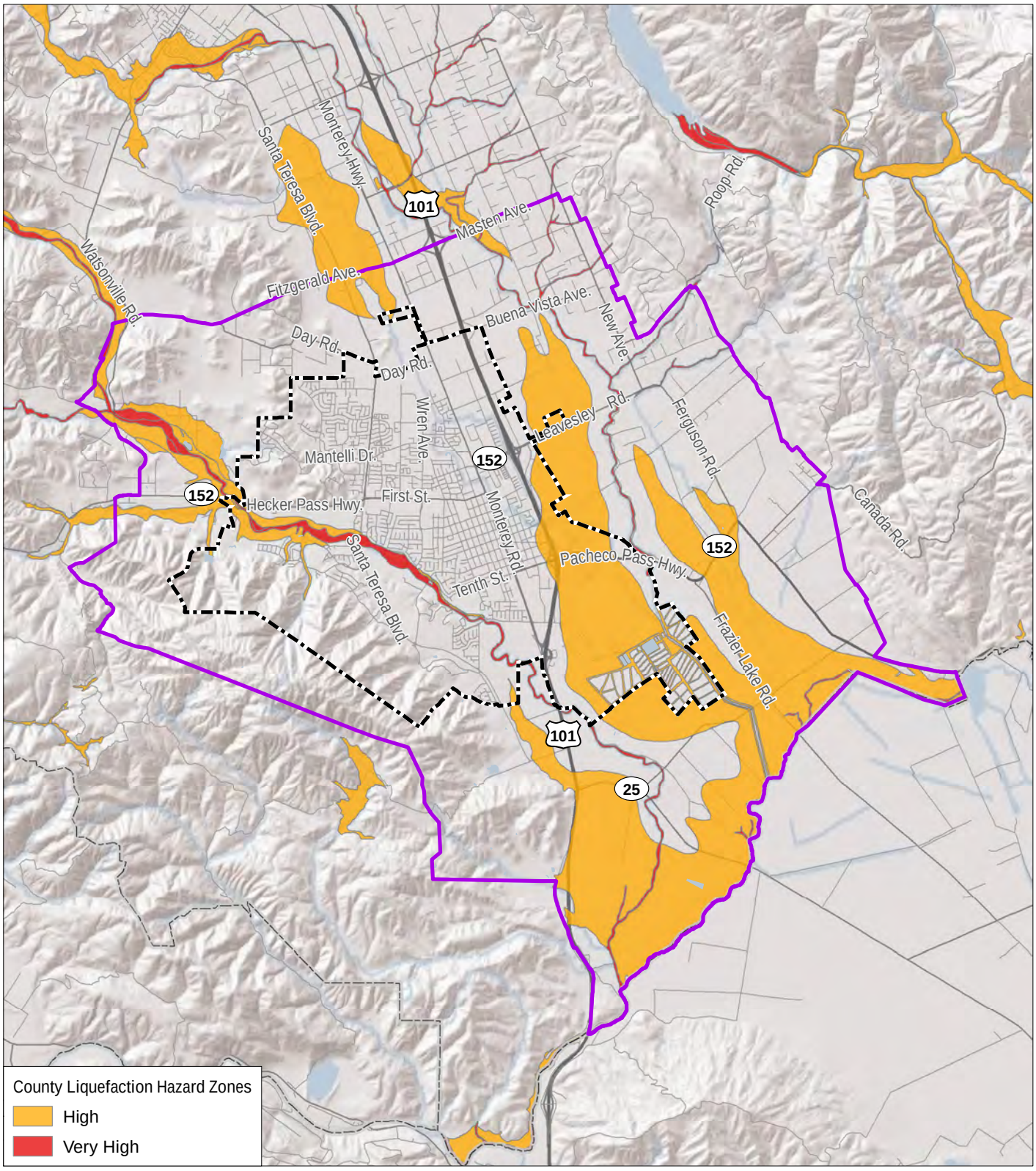
Soil characteristics determine suitability for buildings, structures, infrastructure, paving, and landscaping. Soil constraints and seismic hazards are often interrelated. Soil-related limitations can include expansive soils, erosion, settlement, subsidence, and slope instability.

Expansive Soils. Expansive soils are composed largely of clays, and can undergo significant volume change with changes in moisture content. They shrink and harden when dried, and expand and soften when wetted ("shrink/swell potential"). If not properly engineered, this expansive nature can damage building foundations and other construction, such as sidewalks and concrete. Many soils within the Urban Growth Boundary have moderate to high shrink/swell potential (refer to Table 3. 6-1).

Soil Erosion. Soil erosion is the process by which soil particles are removed from a land surface by wind, water, or gravity. Most natural erosion occurs at slow rates; however, excavation or grading may increase the rate of erosion during construction activities, even where buildings and pavement previously existed at a construction site, because bare soils are exposed and could be eroded by wind or water. Eroded soils can be captured by and transported in stormwater runoff and discharged to surface waters, thereby affecting the water quality of receiving waters.

The erosion potential of soils within the Urban Growth Boundary is shown on Table 3.6-1. In general, the erosion potential ranges from none to slight in areas where the slopes are less than 10 percent, and ranges from moderate to very severe in areas with 10 to 75 percent slopes. Impacts related to the loss of topsoil are primarily associated with the replacement of productive agricultural land with non-agricultural uses. Impacts related to the loss of farmland and farmland soils are addressed in Section 3.2, Agricultural Resources.

Differential Settlement. Differential settlement can occur if buildings or other improvements are built on low-strength foundation materials (e.g., imported fill) or if improvements straddle the boundary between different types of subsurface materials (e.g., a boundary between native soil and fill). Differential settlement can also occur when an earthquake causes non-uniform compaction of the soil and movement of near-surface soils. Although differential settlement generally occurs slowly enough that its effects are not dangerous to inhabitants, it can cause significant building damage over time.



Source: Santa Clara County 2018, Esri 2015

Figure 3.6-2

Liquefaction Hazard Zones

Gilroy 2040 General Plan EIR

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It is possible that developed areas within the Urban Growth Boundary may have historically been constructed on low-strength soils and fill materials that may potentially lead to differential settlement and building damage. For future development within the Urban Growth Boundary, differential settlement and other soil hazards can be mitigated by performing a geotechnical evaluation of the soils on the property and having a State qualified registered engineer design a building foundation appropriate for site conditions and in compliance with the seismic safety standards contained in the California Building Code. The city's Subdivision Ordinance requires soils reports with subdivision applications to address these issues associated with subdivisions.

Subsidence. Subsidence can occur as the result of groundwater extraction, decomposition of highly organic soils, or seasonal drying of expansive clay soils. Santa Clara County experienced subsidence associated with over-withdrawal of groundwater during the period from about 1915 to 1969 (Santa Clara Valley Water District 2019). Most subsidence occurred in the northern portion of Santa Clara Valley. However in the vicinity of Gilroy, Valley Water maintains a minimum level of groundwater capacity to minimize the potential for land subsidence due to groundwater extractions from the Llagas Subbasin (Santa Clara Valley Water District 2019). Valley Water's *2016 Groundwater Management Plan* sets forth objectives so that "groundwater supplies are managed to optimize water supply reliability and minimize land subsidence" and that "groundwater is protected from existing and potential contamination, including salt water intrusion."

Valley Water actively monitors for land subsidence in northern Santa Clara County through benchmark surveying, groundwater elevation monitoring, and data from two 1,000-foot-deep wells designed to measure any changes in the land surface resulting from soils groundwater extraction. Tom Mohr, Valley Water Senior Hydrologist, (email messages, October 21 and 22, 2015) stated that Valley Water does not formally monitor for subsidence in south Santa Clara County, however, informal monitoring conducted between 2004 and 2014 has not shown any significant change in land surface elevation. Valley Water has relied on several satellite-based studies performed by U. C. Berkeley in south Santa Clara County between 1995 through 2001, which showed no indication of long-term land subsidence or uplift in the Southern Santa Clara County Valley at that time (Burgmann and Johanson 2005).

Slope Instability and Landslides. Slope instability can result from geologic materials prone to slope instability during large earthquakes, as well as wet weather, weak soils, improper grading, improper drainage, steep slopes, or a combination of these factors. Slope instability can occur in the form of landslides, mudflow, debris flow, slope creep, slumps, rockfall, or erosion. Figure 3.6-3, Slope Instability and Landslide Hazard Zones, depicts areas of slope instability and potential landslide within the Gilroy 2040 General Plan Planning Area/Sphere of Influence including the Urban Growth Boundary. Areas vulnerable to slope instability and landslide hazards are generally located in steep, hilly terrain in northwestern and southwestern foothills. Construction on slopes steeper than 15 percent typically requires special foundation design considerations.

Other Seismic and Soil Hazards

Structural hazards exist in unreinforced masonry buildings, structures constructed prior to 1933, and structures on unengineered fill, particularly in areas of former marshland and ancient creek beds. In addition to seismic hazards and other soil hazards, asbestos-containing (serpentinized or ultramafic) rocks or soils, pose hazards due to the potential for inhalation when the fibrous mineral (specifically, chrysotile asbestos) is dislodged by erosive natural or human disturbance. Even if the presence of naturally-occurring asbestos is suspected or proven, it is not always present at a harmful level. A State-qualified and registered engineer with expertise in soil evaluation can conclude whether or not the asbestos is not present at a harmful level.

Serpentine rocks and soils, although present in the Gilroy 2040 General Plan Planning Area/Sphere of Influence, are not common within the Urban Growth Boundary. Most of the formations are found in areas designated as Open Space, but have also been observed within the Glen Loma Ranch Specific Plan area, south of Christmas Hill and Mesa Road, and between Farman Canyon and Reservoir Canyon. The Glen Loma Ranch Specific Plan identifies serpentine rocks and soils in an open space area identified as the "Rocky Knoll Habitat Area" on the Specific Plan land use map. Serpentine soils also are known to occur between Reservoir Canyon and Babbs Canyon, and small patches are found between Hecker Pass and Day Road, west of Gilroy. It is possible that serpentine soils may also occur in other undocumented areas. Impacts associated with exposures to naturally occurring asbestos are addressed in Section 3.3, Air Quality and Section 3.8 Hazardous Materials

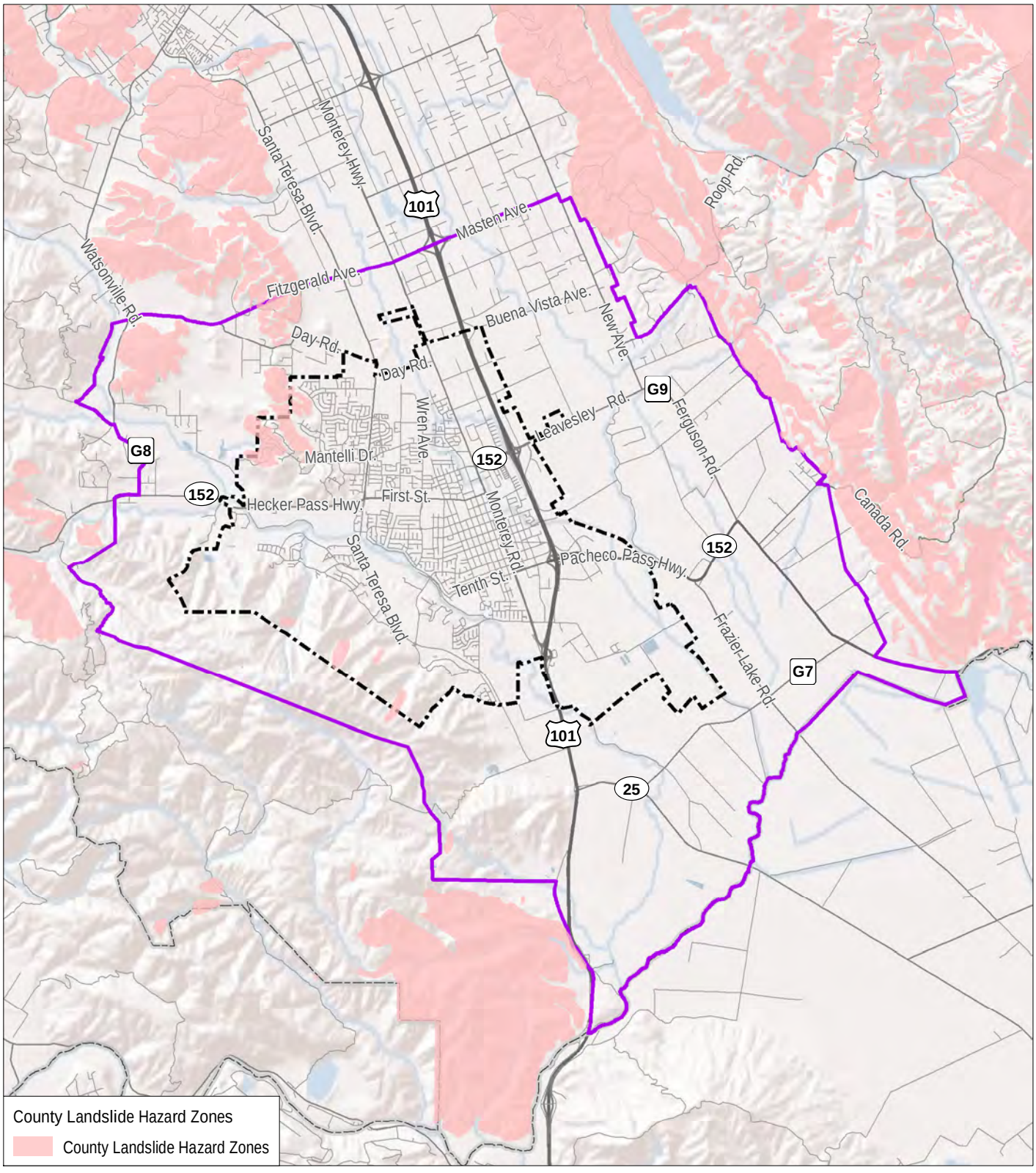
Regulatory Setting

California Building Codes

The California Building Codes (Title 24 of the California Code of Regulations) provide standards for testing and building construction as well as safety measures for development within earthquake prone areas. The project site is located within Seismic Zone D, which is expected to experience the significant effects from earthquakes, and which requires stringent standards for seismic design.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (Pub. Res. Code Division 2, Chapter 7.5, commencing with Section 2621) was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The main purpose of this Act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act addresses only the hazards of surface fault rupture and is not directed toward other earthquake hazards. The City of Gilroy is not located within an Alquist-Priolo Fault zone (California Department of Conservation 2016).



Source: Santa Clara County 2018, Esri 2015

Figure 3.6-3

Slope Instability and Landslides Hazard Zones

Gilroy 2040 General Plan EIR

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Seismic Hazards Mapping Act (1990)

The Seismic Hazards Mapping Act (Pub. Res. Code Division 2, Chapter 7.8, commencing with Section 2690) (1990) requires the State Geologist to designate Seismic Hazard Zones. These zones assist cities and counties in fulfilling their responsibilities for protecting the public from the effects of non-surface fault rupture earthquake hazards such as strong ground shaking, earthquake-induced landslides, liquefaction, or other ground failures. The California Geological Survey has not yet issued a Seismic Hazards Map for the City of Gilroy.

Santa Clara County and City of Gilroy Emergency Planning

The *Santa Clara County Operational Area Emergency Operations Plan* outlines administrative response protocols for the County (Santa Clara County Office of the County Executive 2017). In general, during emergencies, major roads, highways, hospitals, and fire stations are important to the initial response. Schools, churches, and community centers are frequently used as assembly points for persons displaced from homes, or for distribution of emergency supplies. The *Evacuation Annex to the County of Santa Clara Emergency Operations Plan* is a guidance document to the *Santa Clara County Operational Area Emergency Operations Plan* and outlines the general strategy for emergency response to an incident with regional impact. In addition, Santa Clara County in conjunction with other Bay Area city and county governments along with the California Emergency Management Agency, developed a *Regional Catastrophic Earthquake Mass Transportation/Evacuation Plan* in 2011, which provides further evacuation planning guidance to city and county governments in the event of an earthquake with region-wide impacts.

The *City of Gilroy Municipal Code Chapter 9 Emergency Organization and Functions* outlines the power and duties of the City Administrator to act as the director of emergency services to ensure the protection of the public and property within the city in the event of an emergency. This chapter of the municipal code addresses the direction of the emergency organization and the coordination of emergency functions with mutual aid.

Gilroy Design and Development Requirements

Development is subject to compliance with existing Gilroy 2020 General Plan policies and municipal code requirements for new development. Development applications are required to include a soils report prepared by a qualified soils engineer. Report recommendations are required to be included on final improvement plans and are reviewed for approval by the City Engineer, prior to approval of building permits.

To control erosion during grading and construction phases of a project, developers are required to prepare erosion control plans that detail appropriate methods to prevent and/or minimize erosion. Erosion control plans are subject to review and approval by the City of Gilroy Public Works Department prior to the issuance of building permits.

Structural designs are required to comply with the seismic design criteria of the most recent version of the California Building Code in effect at the time of application. Structural designs are subject to the review and approval by the City of Gilroy Building Division prior to the issuance of building permits.

Thresholds of Significance

The City of Gilroy CEQA thresholds of significance state that a project may have a significant effect on the environment if it would:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. Where there is substantial evidence of a known fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist, structures proposed within 100 feet of such a fault would be considered to be subject to a significant impact;

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking or seismic-related ground failure, including liquefaction. All of Gilroy is classified as an area of high seismic motion under the International Building Codes and any project containing structures has the potential to be affected by seismic activity. A soils report is required for all new development applications to assess potential geologic hazards, including seismic-related ground failure, and identify if impacts are significant and if special design is required;

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. Development on slopes greater than 10 percent may be subject to significant impacts;

- Result in substantial soil erosion or the loss of topsoil. Any project that involves soil disturbance would potentially be significant;

- 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. A soils report is required for all new development applications to assess potential geologic hazards, including soils instability, and identify if impacts are significant and if special design is required; or

- Be located on expansive soil, as defined in Section 1803.5.3 of the 2013 California Building Code, creating substantial risks to life or property. A soils report is required for all new development applications to assess potential geologic hazards, including expansive soils, and identify if impacts are significant and if special design is required.

Analysis, Impacts, and Mitigation

IMPACT	Expose People or Structures to Loss or Injury Involving Fault Ruptures	Less than Significant

Buildout consistent with the land use designations in the Gilroy 2040 General Plan would result in new development and introduce additional population that could be exposed to risks of harm and property damage resulting from surface fault rupture and/or fault creep along the Carnadero Fault. Although the United States Geological Survey has not identified this fault as active, the County of Santa Clara has mapped Fault Rupture Zones along the fault. Therefore, fault hazards exist in the vicinity of the Carnadero Fault. According to the Gilroy 2040 General Plan Land Use Map (refer to Figure 2.2-1), under buildout conditions, land uses along the County's identified fault rupture zone would be developed with hillside residential and low-density residential uses, visitor serving commercial uses, park and recreational facility uses, and public and quasi-public facility uses. Development of these uses in proximity to the Carnadero Fault could expose people and structures to increased risks of injury or property damage resulting from fault rupture or fault creep along the Carnadero Fault. This is a potentially significant impact.

Gilroy 2040 General Plan

The Gilroy 2040 General Plan includes the following goals and policies to protect life and property and minimize potential for loss of life, injury, damage to property, and economic and social dislocation due to natural hazards, including seismic hazards such as fault rupture or fault creep. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs, for the full policy language.

> **Goal PH 1:** Minimize potential for loss of life, injury, damage to property, and economic and social dislocation due to natural hazards through development controls and emergency preparedness.

- PH 1.1 Location of Future Development
- PH 1.3 Development Review
- PH 1.10 Hazard Maps
- PH 1.15 Emergency Preparedness Planning
- PH 1.16 Development Tracking System
- PH 1.18 Address Emergency Preparedness in Plan and Code Updates

Policy PH 1.1 allows development only in those areas where potential danger to the health, safety, and welfare of residents can be adequately mitigated to an acceptable level of risk

and applies to development in areas subject to flood damage, fire damage, or geological hazard due to their location and/or design. Policy PH 1.3 requires appropriate studies as part of the development review process to assess potential hazards and assure that potential, significant impacts are adequately mitigated. Policy PH 1.10 requires the maintenance of the most current seismic hazards maps for use in development review, in accordance with the State of California's Seismic Hazards Mapping Act. Policy PH 1.15 requires that new specific plans and city plans and programs address emergency preparedness. Policy PH 1.16 states the city should consider the feasibility of procuring and implementing a system to track development in hazard prone areas. Policy PH 1.18 requires that the city address emergency preparedness during the next update to the city's Capital Improvement Plan, Storm Water Quality Protection and Discharge Control and Habitat Conservation Plan provisions in the Municipal Code, or for any new storm water management plans in order to reduce natural disaster impacts.

Goal PH 2: Protect life and minimize property damage from potential seismic and geologic hazards.

- PH 2.1 Active Faults
- PH 2.2 Site Investigation and Mitigation
- PH 2.3 Roads, Bridges, and Utility Lines
- PH 2.5 Geologic Hazards Reports

Policy PH 2.1 calls for consideration of all faults in the area to be active faults, unless and until evidence to the contrary is developed through field investigation. Policy PH 2.2 requires proper soils and geologic site investigation and appropriate mitigation for development proposals in areas of unconsolidated fill, and areas subject to seasonal high groundwater tables or other potentially unstable soils. Policy PH 2.3 requires design and engineering of new roads, bridges and utility lines (public and private) that cross active or potentially active fault traces, streams, or other areas of high seismic risk to ensure that structures are resilient to the potential hazards posed by ground movement along these corridors. Policy PH 2.5 requires geologic hazards reports for all new development applications to assess potential geologic hazards and to determine if these hazards can be adequately mitigated.

Conclusion

With implementation of these Gilroy 2040 General Plan goals and policies the risk of human harm or property damage due to fault rupture or fault creep along the Carnadero Fault would be less than significant.

IMPACT	Expose People or Structures to Loss or Injury Involving Seismic Ground Shaking	Less than Significant

During the lifetime of the Gilroy 2040 General Plan, the Urban Growth Boundary will likely be subject to significant ground shaking during a seismic event. As noted previously, United States Geological Survey data indicates the probability of a 6.7-magnitude or greater earthquake on the Hayward Fault is 31 percent and on the San Andreas Fault is 21 percent in the next two decades. Existing and future development associated with buildout of the Gilroy 2040 General Plan would be exposed to seismic ground shaking to the extent that human harm and/or property damage could occur. The intensity of the ground shaking depends on the earthquake size, distance to fault, building construction, and subsurface conditions in the Urban Growth Boundary. Seismic shaking from a moderate to large magnitude earthquake on a regional fault has potential to cause direct and indirect damage to building and infrastructure and to cause injury in all areas of the Urban Growth Boundary. This is a potentially significant impact.

The Gilroy 2040 General Plan goals and policies below require field investigations of faults, soil and geologic site investigation and mitigation for new development, compliance with building code standards, restriction of development on slopes susceptible to landslides and soil creep, and preparation of geologic hazard reports for new development applications.

Gilroy 2040 General Plan

The Gilroy 2040 General Plan includes the following goals and policies to minimize potential for loss of life, injury, damage to property, and economic and social dislocation due to natural hazards such as seismic ground shaking, through development controls and emergency preparedness.

Goal PH 1: Minimize potential for loss of life, injury, damage to property, and economic and social dislocation due to natural hazards through development controls and emergency preparedness.

- PH 1.1 Location of Future Development
- PH 1.2 Emergency Services
- PH 1.3 Development Review
- PH 1.4 Secondary Access
- PH 1.5 Building and Fire Codes
- PH 1.6 Essential Emergency Public Services
- PH 1.10 Hazard Maps

- PH 1.15 Emergency Preparedness Planning
- PH 1.16 Development Tracking System
- PH 1.18 Address Emergency Preparedness in Plan and Code Updates

Policy PH 1.1 allows development only in those areas where potential danger to the health, safety, and welfare of residents can be adequately mitigated to an acceptable level of risk and applies to development in areas subject to flood damage, fire damage, or geological hazard due to their location and/or design. Policy PH 1.2 prohibits development in areas where emergency services, including fire protection, cannot be provided. Policy PH 1.3 requires appropriate studies as part of the development review process to assess potential hazards and assure that potential, significant impacts are adequately mitigated. Policy PH 1.4 requires the provision of secondary access for residential Streets and developments serving 30 or more single-family units or 100 or more multi-family units, subject to review by the Fire Chief. Policy PH 1.5 requires regular updates to the building and fire codes to address earthquake, fire, and other hazards. Policy PH 1.6 calls for provision of essential emergency public services during natural catastrophes and their aftermath to ensure a rapid recovery. Policy PH 1.10 requires the maintenance of the most current seismic hazards maps for use in development review, in accordance with the State of California's Seismic Hazards Mapping Act. Policy PH 1.15 requires that new specific plans and city plans and programs address emergency preparedness. Policy PH 1.16 states the city should consider the feasibility of procuring and implementing a system to track development in hazard prone areas. Policy PH 1.18 requires that the city address emergency preparedness during the next update to the City's Capital Improvement Plan, Storm Water Quality Protection and Discharge Control and Habitat Conservation Plan provisions in the Municipal Code, or for any new storm water management plans in order to reduce natural disaster impacts.

Goal PH 2: Protect life and minimize property damage from potential seismic and geologic hazards.

- PH 2.1 Active Faults
- PH 2.2 Site Investigation and Mitigation
- PH 2.3 Roads, Bridges, and Utility Lines
- PH 2.4 Slope Restrictions
- PH 2.5 Geologic Hazards Reports
- PH 2.8 Unreinforced Masonry (URM) Buildings

Policy PH 2.1 calls for consideration of all faults in the area to be active faults, unless and until evidence to the contrary is developed through field investigation. Policy PH 2.2 requires proper soils and geologic site investigation and appropriate mitigation for

development proposals in areas of unconsolidated fill, and areas subject to seasonal high groundwater tables or other potentially unstable soils. Policy PH 2.3 requires design and engineering of new roads, bridges and utility lines (public and private) that cross active or potentially active fault traces, streams, or other areas of high seismic risk to ensure that structures are resilient to the potential hazards posed by ground movement along these corridors. Policy PH 2.4 restricts development on steep slopes and on slopes susceptible to landslides and soil creep, and identifies that slopes of 10 to 30 percent may be suitable for low intensity, low density development, subject to site-specific review and approval. This policy also identifies that slopes greater than 30 percent, areas of high landslide risk, and areas with highly expansive soils on slopes greater than 10 percent are not suitable for development and will remain open space. Policy PH 2.5 requires geologic hazards reports for all new development applications to assess potential geologic hazards and to determine if these hazards can be adequately mitigated. Policy PH 2.8 calls for continued implementation of Article VI, Seismic Safety of the Gilroy City Code to improve the safety of the city's Unreinforced Masonry (URM) buildings.

Conclusion

With implementation of these goals, policies, and programs the risk of human harm or property damage resulting from exposure to seismic ground shaking would be less than significant. No mitigation measures are required.

IMPACT	Expose People or Structures to Loss or Injury Involving Seismically-Induced Ground Failure	Less than Significant

Future development associated with buildout of the Gilroy 2040 General Plan could increase the risks of human harm or property damage due to seismically-induced ground failure/liquefaction. Liquefaction hazard zones identified by the County of Santa Clara indicate that potentially significant impacts due to seismic-related ground failure could occur to future development within the Urban Growth Boundary. As previously reported, very high liquefaction areas are present within the Urban Growth Boundary along Uvas Creek from Hecker Pass Highway to the southeast toward State Highway 101 (refer to Figure 3.6-2). Other areas within the Urban Growth Boundary with potential liquefaction hazards are primarily areas east of State Highway 101. Development within the areas identified as having liquefaction risk could suffer significant damage in the event of a strong earthquake that triggered liquefaction or soil settlement. This is a potentially significant impact.

Gilroy 2040 General Plan

The Gilroy 2040 General Plan includes the following goals and policies to protect life and minimize property damage resulting from seismic hazards such as seismically-induced ground failure.

Goal PH 1: Minimize potential for loss of life, injury, damage to property, and economic and social dislocation due to natural hazards through development controls and emergency preparedness.

- PH 1.1 Location of Future Development
- PH 1.2 Emergency Services
- PH 1.3 Development Review
- PH 1.4. Secondary Access
- PH 1.5 Building and Fire Codes
- PH 1.6 Essential Emergency Public Services
- PH 1.10 Hazard Maps
- PH 1.12 Public Information
- PH.1.15 Emergency Preparedness Planning
- PH 1.16 Development Tracking System
- PH.1.18 Address Emergency Preparedness in Plan and Code Updates

Policy PH 1.1 allows development only in those areas where potential danger to the health, safety, and welfare of residents can be adequately mitigated to an acceptable level of risk and applies to development in areas subject to flood damage, fire damage, or geological hazard due to their location and/or design. Policy PH 1.2 prohibits development in areas where emergency services, including fire protection, cannot be provided. Policy PH 1.3 requires appropriate studies as part of the development review process to assess potential hazards and assure that potential, significant impacts are adequately mitigated. Policy PH 1.4 requires the provision of secondary access for residential Streets and developments serving 30 or more single-family units or 100 or more multi-family units, subject to review by the Fire Chief. Policy PH 1.5 requires regular updates to the building and fire codes to address earthquake, fire, and other hazards. Policy PH 1.6 calls for provision of essential emergency public services during natural catastrophes and their aftermath to ensure a rapid recovery. Policy PH 1.10 requires the maintenance of the most current seismic hazards maps for use in development review, in accordance with the State of California's Seismic Hazards Mapping Act. Policy PH 1.12 requires the provision of information through the city's quarterly newsletter, and through local radio and television, the internet, social media, and reverse 911 directories to educate the public on potential natural hazards and actions they can take to help minimize those hazards. Policy PH 1.15 requires that new specific plans and city plans and programs address emergency preparedness. Policy PH 1.16 states the city should consider the feasibility of procuring and implementing a system to track development in hazard prone areas. Policy PH 1.18 requires that the city address emergency preparedness during the next update to the city's Capital Improvement Plan, Storm Water

Quality Protection and Discharge Control and Habitat Conservation Plan provisions in the Municipal Code, or for any new storm water management plans in order to reduce natural disaster impacts.

Goal PH 2: Protect life and minimize property damage from potential seismic and geologic hazards.

- PH 2.1 Active Faults
- PH 2.2 Site Investigation and Mitigation
- PH 2.3 Roads, Bridges, and Utility Lines
- PH 2.4 Slope Restrictions
- PH 2.5 Geologic Hazards Reports
- PH 2.6 Erosion and Deposition Control
- PH 2.7 Hazardous Building Inspection
- PH 2.8 Unreinforced Masonry (URM) Buildings
- PH 2.9 City Facility Upgrades

Policy PH 2.1 calls for consideration of all faults in the area to be active faults, unless and until evidence to the contrary is developed through field investigation. Policy PH 2.2 requires proper soils and geologic site investigation and appropriate mitigation for development proposals in areas of unconsolidated fill, and areas subject to seasonal high groundwater tables or other potentially unstable soils. Policy PH 2.3 requires design and engineering of new roads, bridges and utility lines (public and private) that cross active or potentially active fault traces, streams, or other areas of high seismic risk to ensure that structures are resilient to the potential hazards posed by ground movement along these corridors. Policy PH 2.4 restricts development on steep slopes and on slopes susceptible to landslides and soil creep, and identifies that slopes of 10 to 30 percent may be suitable for low intensity, low density development, subject to site-specific review and approval. This policy also identifies that slopes greater than 30 percent, areas of high landslide risk, and areas with highly expansive soils on slopes greater than 10 percent are not suitable for development and will remain open space. Policy PH 2.5 requires geologic hazards reports for all new development applications to assess potential geologic hazards and to determine if these hazards can be adequately mitigated. Policy PH 2.6 requires all new development proposals to include a site plan detailing appropriate methods of erosion and deposition control during site development and subsequent use. Policy PH 2.7 requires the inspection of buildings to identify, abate, or mitigate existing hazardous structures. Policy PH 2.8 calls for continued implementation of Article VI, Seismic Safety of the Gilroy City Code to improve the safety of the city's Unreinforced Masonry (URM) buildings. Policy PH 2.9 calls for continued effort to seismically upgrade existing city facilities that do not meet current building code standards.

Conclusion

With implementation of these goals and policies, the risk of human harm or property damage resulting from exposure to seismically-induced ground failure would be less than significant. No additional mitigation is required.

IMPACT	Expose People or Structures to or Injury Involving Seismically-Induced Landslides	Less than Significant

Future development associated with buildout of the Gilroy 2040 General Plan could increase the risks of human harm or property damage due to landslides resulting from seismic ground shaking. Slope instability and landslides hazard zones identified by the County of Santa Clara indicate that potentially significant impacts due to landslides could occur to small areas of development located in the steep, hilly terrain in the foothills of the Santa Cruz Mountains in the northwestern and southwestern parts of the Urban Growth Boundary, as presented earlier in Figure 3.6-3, Slope Instability and Landslides Hazard Zones. Development within the areas identified as having a landslide risk and areas where slopes are greater than 10 percent could suffer significant damage from downward or lateral slope movement during large earthquakes, as well as wet weather, weak soils, improper grading, improper drainage, steep slopes, or a combination of these factors. This is a potentially significant impact.

Gilroy 2040 General Plan

The Gilroy 2040 General Plan includes the following goals and policies to minimize potential for loss of life, injury, damage to property, and economic and social dislocation due to natural hazards such as seismically-induced landslides through development controls and emergency preparedness.

Goal PH 1: Minimize potential for loss of life, injury, damage to property, and economic and social dislocation due to natural hazards through development controls and emergency preparedness.

- PH 1.1 Location of Future Development
- PH 1.2 Emergency Services
- PH 1.3 Development Review
- PH 1.4 Secondary Access.
- PH 1.5 Building and Fire Codes
- PH 1.6 Essential Emergency Public Services
- PH 1.10 Hazard Maps

- PH 1.12 Public Information
- PH 1.15 Emergency Preparedness Planning
- PH 1.16 Development Tracking System
- PH 1.18 Address Emergency Preparedness in Plan and Code Updates

Policy PH 1.1 allows development only in those areas where potential danger to the health, safety, and welfare of residents can be adequately mitigated to an acceptable level of risk and applies to development in areas subject to flood damage, fire damage, or geological hazard due to their location and/or design. Policy PH 1.2 prohibits development in areas where emergency services, including fire protection, cannot be provided. Policy PH 1.3 requires appropriate studies as part of the development review process to assess potential hazards and assure that potential, significant impacts are adequately mitigated. Policy PH 1.4 requires the provision of secondary access for residential Streets and developments serving 30 or more single-family units or 100 or more multi-family units, subject to review by the Fire Chief. Policy PH 1.5 requires regular updates to the building and fire codes to address earthquake, fire, and other hazards. Policy PH 1.6 calls for provision of essential emergency public services during natural catastrophes and their aftermath to ensure a rapid recovery. Policy PH 1.10 requires the maintenance of the most current seismic hazards maps for use in development review, in accordance with the State of California's Seismic Hazards Mapping Act. Policy PH 1.12 requires the provision of information through the city's quarterly newsletter, and through local radio and television, the internet, social media, and reverse 911 directories to educate the public on potential natural hazards and actions they can take to help minimize those hazards. Policy PH 1.15 requires that new specific plans and city plans and programs address emergency preparedness. Policy PH 1.16 states the city should consider the feasibility of procuring and implementing a system to track development in hazard prone areas. Policy PH 1.18 requires that the city address emergency preparedness during the next update to the city's Capital Improvement Plan, Storm Water Quality Protection and Discharge Control and Habitat Conservation Plan provisions in the Municipal Code, or for any new storm water management plans in order to reduce natural disaster impacts.

Goal PH 2: Protect life and minimize property damage from potential seismic and geologic hazards.

- PH 2.1 Active Faults
- PH 2. Site Investigation and Mitigation
- PH 2.3 Roads, Bridges, and Utility Lines
- PH 2.4 Slope Restrictions
- PH 2.5 Geologic Hazards Reports

Policy PH 2.1 calls for consideration of all faults in the area to be active faults, unless and until evidence to the contrary is developed through field investigation. Policy PH 2.2 requires proper soils and geologic site investigation and appropriate mitigation for development proposals in areas of unconsolidated fill, and areas subject to seasonal high groundwater tables or other potentially unstable soils. Policy PH 2.3 requires design and engineering of new roads, bridges and utility lines (public and private) that cross active or potentially active fault traces, streams, or other areas of high seismic risk to ensure that structures are resilient to the potential hazards posed by ground movement along these corridors. Policy PH 2.4 restricts development on steep slopes and on slopes susceptible to landslides and soil creep, and identifies that slopes of 10 to 30 percent may be suitable for low intensity, low density development, subject to site-specific review and approval. This policy also identifies that slopes greater than 30 percent, areas of high landslide risk, and areas with highly expansive soils on slopes greater than 10 percent are not suitable for development and will remain open space. Policy PH 2.5 requires geologic hazards reports for all new development applications to assess potential geologic hazards and to determine if these hazards can be adequately mitigated.

Conclusion

Implementation of Gilroy 2040 General Plan goals and policies would reduce the risks of potential significant impacts resulting in human harm and/or property damage due to seismically-induced landslides to less than significant. No additional mitigation is required.

IMPACT	Result in Soil Erosion or Loss of Topsoil	Less than Significant

Future development associated with buildout of the Gilroy 2040 General Plan has the potential to result in soil erosion. Soils within the Urban Growth Boundary have differing rates of erosion potential based on site-specific soil characteristics and topography (refer to Table 3.6-1 and Figure 3.2-1).

The potential for soil erosion within the northern, central, and eastern portions of the Urban Growth Boundary varies from none to slight in areas with slopes of less than 10 percent. In the western and southern portions of the Urban Growth Boundary, the potential for soil erosion ranges from moderate to very severe in areas with 10 to 75 percent slopes.
A comparison between the Gilroy 2040 General Plan Land Use Map (Figure 2.2-1) with the soil map (Figure 3.2-3) illustrates that the majority of future construction activities in the Urban Growth Boundary will likely occur on relatively flat slopes where the soil erosion potential ranges from none to slight, therefore, impacts from soil erosion in these areas of the Urban Growth Boundary will likely be limited. However, future development consistent with Gilroy 2040 General Plan land use designations on hillsides in the western and southern portions of the Urban Growth Boundary and unprotected alterations in drainage

patterns could increase soil erosion. Erosion impacts related to altered drainage patterns are discussed in more detail in Section 3.9, Storm Water and Flooding.

For areas within the Urban Growth Boundary with erosion potential upon which future development or improvements to existing development would occur, the city's existing erosion control requirements and standard conditions of approval adequately address erosion impacts from site-specific development. As noted previously, these requirements include the provision of project-specific soils and geotechnical reports and erosion control plans. After construction is complete, soils would be covered by buildings, other impervious surfaces, and landscaping, all of which would prevent significant erosion. Erosion would not be a significant impact in areas with relatively flat slopes.

Gilroy 2040 General Plan

The following Gilroy 2040 General Plan goals, policies, and program address soil erosion.

- LU 3.9 Hillside Development

Goal PH 1: Minimize potential for loss of life, injury, damage to property, and economic and social dislocation due to natural hazards through development controls and emergency preparedness.

- PH 1.1 Location of Future Development
- PH 1.3 Development Review
- PH 1.15 Emergency Preparedness Planning
- PH 1.16 Development Tracking System
- PH 1.18 Address Emergency Preparedness in Plan and Code Updates

Goal PH 2: Protect life and minimize property damage from potential seismic and geologic hazards.

- PH 2.2 Site Investigation and Mitigation
- PH 2.4 Slope Restrictions
- PH 2.5 Geologic Hazards Reports
- PH 2.6 Erosion and Deposition Control
- PH 3.6 Permeable Surfaces for Runoff Reduction and Absorption
- PH 3.7 Erosion Control in Hillside Areas

Policy LU 3.9 provides guidance for hillside development and calls for minimization of grading and topographical alteration needed to create developments that appear to be in a natural hillside setting.

Policy PH 1.1 allows development only in those areas where potential danger to the health, safety, and welfare of residents can be adequately mitigated to an acceptable level of risk and applies to development in areas subject to flood damage, fire damage, or geological hazard due to their location and/or design. Policy PH 1.3 requires appropriate studies as part of the development review process to assess potential hazards and assure that potential impacts are adequately mitigated. Policy PH 1.15 requires that new specific plans and city plans and programs address emergency preparedness. Policy PH 1.16 states the city should consider the feasibility of procuring and implementing a system to track development in hazard prone areas. Policy PH 1.18 requires that the city address emergency preparedness during the next update to the city's Capital Improvement Plan, Storm Water Quality Protection and Discharge Control and Habitat Conservation Plan provisions in the Municipal Code, or for any new storm water management plans in order to reduce natural disaster impacts.

Policy PH 2.2 requires proper soils and geologic site investigation and appropriate mitigation for development proposals in areas of unconsolidated fill, and areas subject to seasonal high groundwater tables or other potentially unstable soils. Policy PH 2.4 restricts development on steep slopes and on slopes susceptible to landslides and soil creep, and identifies that slopes of 10 to 30 percent may be suitable for low intensity, low density development, subject to site-specific review and approval. This policy also identifies that slopes greater than 30 percent, areas of high landslide risk, and areas with highly expansive soils on slopes greater than 10 percent are not suitable for development and will remain open space. Policy PH 2.5 requires geologic hazards reports for all new development applications to assess potential geologic hazards and to determine if these hazards can be adequately mitigated. Policy PH 2.6 requires all new development proposals to include a site plan detailing appropriate methods of erosion and deposition control during site development and subsequent use.

Policy PH 3.6 requires new development to include landscaped areas for reducing runoff and increasing runoff absorption capacities and encourages the use of permeable paving materials, which would minimize the erosive effects of storm water. Policy PH 3.7 requires new development in hillside areas to retain and protect areas of native vegetation to help reduce erosion and slow the speed of rainfall runoff. These efforts will assist in retaining the hillside areas' natural flood control characteristics and ensure that retention and protection of vegetated areas is also in keeping with fire hazard management goals.

Conclusion

Implementation of these goals, policies, and programs would reduce the risks of potential significant impacts from soil erosion to a less-than-significant level. No additional mitigation is required.

IMPACT	Development Located on an Unstable Geologic Unit or Soil and Potentially Result in On- or Off-Site Landslide, Lateral Spreading, Subsidence, Liquefaction, or Collapse	Less than Significant

As noted previously, soils in the vicinity of Gilroy and within the Urban Growth Boundary include expansive soils and areas vulnerable to liquefaction and soil settlement (refer Figures 3.6-2 and 3.6-3). Future development associated with buildout of the Gilroy 2040 General Plan could occur on unstable soils that could, unrelated to seismic events, become unstable and potentially result in landslides, lateral spreading, subsidence, liquefaction, or collapse. All of these hazards have the potential to damage property and in extreme circumstances, could also result in human harm or loss of life. This is a potentially significant impact.

Gilroy 2040 General Plan

The Gilroy 2040 General Plan includes the following goals, policies, and programs to protect life and minimize property damage from development on unstable soils or geologic unit.

Goal LU 3. Provide a variety of housing types that offer choices for Gilroy residents and create complete, livable neighborhoods.

- LU 3.9 Hillside Development

Policy LU 3.9 provides guidance for hillside development and calls for minimization of grading and topographical alteration needed to create developments that appear to be in a natural hillside setting.

Goal PH 1: Minimize potential for loss of life, injury, damage to property, and economic and social dislocation due to natural hazards through development controls and emergency preparedness.

- PH 1.1 Location of Future Development
- PH 1.2 Emergency Services
- PH 1.3 Development Review
- PH 1.5 Building and Fire Codes
- PH 1.6 Essential Emergency Public Services

- PH 1.10 Hazard Maps
- PH 1.12 Public Information
- PH 1.15 Emergency Preparedness Planning
- PH 1.16 Development Tracking System
- PH 1.18 Address Emergency Preparedness in Plan and Code Updates

Policy PH 1.1 allows development only in those areas where potential danger to the health, safety, and welfare of residents can be adequately mitigated to an acceptable level of risk and applies to development in areas subject to flood damage, fire damage, or geological hazard due to their location and/or design. Policy PH 1.2 prohibits development in areas where emergency services, including fire protection, cannot be provided. Policy PH 1.3 requires appropriate studies as part of the development review process to assess potential hazards and assure that potential, significant impacts are adequately mitigated. Policy PH 1.4 requires the provision of secondary access for residential Streets and developments serving 30 or more single-family units or 100 or more multi-family units, subject to review by the Fire Chief. Policy PH 1.5 requires regular updates to the building and fire codes to address earthquake, fire, and other hazards. Policy PH 1.6 calls for provision of essential emergency public services during natural catastrophes and their aftermath to ensure a rapid recovery. Policy PH 1.10 requires the maintenance of the most current seismic hazards maps for use in development review, in accordance with the State of California's Seismic Hazards Mapping Act. Policy PH 1.15 requires that new specific plans and city plans and programs address emergency preparedness. Policy PH 1.16 states the city should consider the feasibility of procuring and implementing a system to track development in hazard prone areas. Policy PH 1.18 requires that the city address emergency preparedness during the next update to the city's Capital Improvement Plan, Storm Water Quality Protection and Discharge Control and Habitat Conservation Plan provisions in the Municipal Code, or for any new storm water management plans in order to reduce natural disaster impacts.

Goal PH 2: Protect life and minimize property damage from potential seismic and geologic hazards.

- PH 2.2 Site Investigation and Mitigation
- PH 2.3 Roads, Bridges, and Utility Lines
- PH 2.4 Slope Restrictions
- PH 2.5 Geologic Hazards Report
- PH 2.6 Erosion and Deposition Control

Policy PH 2.2 requires proper soils and geologic site investigation and appropriate mitigation for development proposals in areas of unconsolidated fill, and areas subject to seasonal high groundwater tables or other potentially unstable soils. Policy PH 2.3 requires design and engineering of new roads, bridges and utility lines (public and private) that cross active or potentially active fault traces, streams, or other areas of high seismic risk to ensure that structures are resilient to the potential hazards posed by ground movement along these corridors. Policy PH 2.4 restricts development on steep slopes and on slopes susceptible to landslides and soil creep, and identifies that slopes of 10 to 30 percent may be suitable for low intensity, low density development, subject to site-specific review and approval. This policy also identifies that slopes greater than 30 percent, areas of high landslide risk, and areas with highly expansive soils on slopes greater than 10 percent are not suitable for development and will remain open space. Policy PH 2.5 requires geologic hazards reports for all new development applications to assess potential geologic hazards and to determine if these hazards can be adequately mitigated. Policy PH 2.6 requires all new development proposals to include a site plan detailing appropriate methods of erosion and deposition control during site development and subsequent use.

Implementation of these Gilroy 2040 General Plan goals and policies reduce the potential, significant impacts related to ground failure to less than significant. No additional mitigation is required.

IMPACT	Development Located on Expansive Soil, Creating Risks to Life or Property	Less than Significant

Future development associated with buildout of the Gilroy 2040 General Plan could increase the risks of human harm or property damage due to construction on expansive soils. Most of the soils in the Urban Growth Boundary are characterized as having a moderate or high shrink-swell potential. Buildings and other improvements constructed in the Urban Growth Area may experience settlement caused by consolidation of expansive soils under the weight of the new fill and building load. Differential settlements may be expected between the heavily loaded interiors of large structures and the more lightly loaded perimeters. Differential settlements can cause significant damage to structures, surrounding pavements and utilities, which may subsequently create hazardous environments to humans. This impact is potentially significant.

Building foundation designs need to accommodate expansive soil properties in order to prevent building damage. As previously noted, the city's existing municipal code requires soils investigations as part of development applications and infrastructure improvement plans to address concerns that might be identified regarding expansive soils at specific building sites. In addition, future development consistent with the Gilroy 2040 General Plan land use designations are subject to compliance with building code requirements for the design and construction of foundations, footings and utilities.

Gilroy 2040 General Plan

The Gilroy 2040 General Plan includes the following goals and policies to protect life and minimize property damage from development on expansive soils.

> **Goal PH 1:** Minimize potential for loss of life, injury, damage to property, and economic and social dislocation due to natural hazards through development controls and emergency preparedness.

- PH 1.1 Location of Future Development
- PH 1.2 Emergency Services
- PH 1.3 Development Review
- PH 1.5 Building and Fire Codes
- PH 1.6 Essential Emergency Public Services
- PH 1.10 Hazard Maps
- PH 1.12 Public Information
- PH 1.15 Emergency Preparedness Planning
- PH 1.16 Development Tracking System
- PH 1.18 Address Emergency Preparedness in Plan and Code Updates

Policy PH 1.1 allows development only in those areas where potential danger to the health, safety, and welfare of residents can be adequately mitigated to an acceptable level of risk and applies to development in areas subject to flood damage, fire damage, or geological hazard due to their location and/or design. Policy PH 1.2 prohibits development in areas where emergency services, including fire protection, cannot be provided. Policy PH 1.3 requires appropriate studies as part of the development review process to assess potential hazards and assure that potential, significant impacts are adequately mitigated. Policy PH 1.4 requires the provision of secondary access for residential Streets and developments serving 30 or more single-family units or 100 or more multi-family units, subject to review by the Fire Chief. Policy PH 1.5 requires regular updates to the building and fire codes to address earthquake, fire, and other hazards. Policy PH 1.6 calls for provision of essential emergency public services during natural catastrophes and their aftermath to ensure a rapid recovery. Policy PH 1.10 requires the maintenance of the most current seismic hazards maps for use in development review, in accordance with the State of California's Seismic Hazards Mapping Act. Policy PH 1.15 requires that new specific plans and city plans and programs address emergency preparedness. Policy PH 1.16 states the city should consider the feasibility of procuring and implementing a system to track development in hazard prone areas. Policy PH 1.18 requires that the city address emergency preparedness during the next

update to the city's Capital Improvement Plan, Storm Water Quality Protection and Discharge Control and Habitat Conservation Plan provisions in the Municipal Code, or for any new storm water management plans in order to reduce natural disaster impacts.

Goal PH 2: Protect life and minimize property damage from potential seismic and geologic hazards.

- PH 2.2 Site Investigation and Mitigation
- PH 2.4 Slope Restrictions
- PH 2.5 Geologic Hazards Reports
- PH 2.7 Hazardous Building Inspection

Policy PH 2.2 requires proper soils and geologic site investigation and appropriate mitigation for development proposals in areas of unconsolidated fill, and areas subject to seasonal high groundwater tables or other potentially unstable soils. Policy PH 2.3 requires design and engineering of new roads, bridges and utility lines (public and private) that cross active or potentially active fault traces, streams, or other areas of high seismic risk to ensure that structures are resilient to the potential hazards posed by ground movement along these corridors. Policy PH 2.4 restricts development on steep slopes and on slopes susceptible to landslides and soil creep, and identifies that slopes of 10 to 30 percent may be suitable for low intensity, low density development, subject to site-specific review and approval. This policy also identifies that slopes greater than 30 percent, areas of high landslide risk, and areas with highly expansive soils on slopes greater than 10 percent are not suitable for development and will remain open space. Policy PH 2.5 requires geologic hazards reports for all new development applications to assess potential geologic hazards and to determine if these hazards can be adequately mitigated. Policy PH 2.6 requires all new development proposals to include a site plan detailing appropriate methods of erosion and deposition control during site development and subsequent use. Policy PH 2.7 requires the inspection of buildings to identify, abate, or mitigate existing hazardous structures. Policy PH 2.8, described previously, calls for continued implementation of Article VI, Seismic Safety of the Gilroy City Code to improve the safety of the city's Unreinforced Masonry (URM) buildings.

Conclusion

Implementation of these Gilroy 2040 General Plan goals and policies reduces potential, significant impacts from constructing improvements on expansive soils to a less-than-significant level. No additional mitigation is required.

3.7 GREENHOUSE GAS EMISSIONS

Implementation of the Gilroy 2040 General Plan will result in generation of greenhouse gas emissions (GHG) from new future construction activities and from operations of new land development and municipal operations activities. The amount of new development projected under buildout conditions is identified in Table 2.2-1, Development Potential, in Section 2.0, Project Description. The primary sources of GHGs will be from combustion of fuel in vehicles and use of electricity generated by fossil fuels. These GHG emissions will contribute to global warming that changes climate conditions. This section of the EIR includes discussion of the science of climate change, existing setting conditions, existing applicable policy and regulatory direction regarding climate change, the sources and projected volume of GHG emissions that would be generated by the proposed project, GHG emissions volume reductions that accrue to state legislation and regulations, and potential GHG emissions impacts in light of applicable thresholds of significance.

Information is this section is derived from a variety of sources including:

- *Gilroy 2040 General Plan Background Report* (Mintier Harnish 2014);
- *City of Gilroy Climate Action Plan Administrative Draft* (AECOM 2015);
- *2017 CEQA Air Quality Guidelines* (Bay Area Air Quality Management District 2017a);
- *2017 Clean Air Plan: Spare the Air, Cool the Climate* (Bay Area Air Quality Management District 2017b);
- *City of Gilroy 2040 General Plan Draft Transportation Analysis* (Hexagon Transportation Consultants 2020); and
- *City of Gilroy 2040 General Plan Greenhouse Gas Emissions Modeling Methodologies and Assumptions* (EMC Planning Group 2020).

The Bay Area Air Quality Management District ("air district") submitted comments on the revised NOP that address GHG emissions. The revised NOP and comment letters are included in Appendix B.

Environmental Setting

Unless otherwise noted, the information in this environmental setting section is taken from the *Gilroy 2040 General Plan Background Report* (Mintier Harnish 2014). Please refer to that report for more information.

Climate Change Science

The international scientific community has concluded with a high degree of confidence that human activities are causing an accelerated warming of the atmosphere. The resulting change in climate has serious global implications and consequently, human activities that

contribute to climate change may have a potentially significant effect on the environment. In recent years, concern about climate change and its potential impacts has risen dramatically. That concern has translated into a range of international treaties and national and regional agreements aimed at diminishing the rate at global warming is occurring. The federal government has begun to tackle concerns about climate change through a range of initiatives and regulatory actions. Many states and local agencies, private sector interests, and other public and private interests have also taken initiative to combat climate change. At the state level, California has taken a leadership role in tackling climate change, as evidenced by the programs outlined in the Regulatory Setting section below.

Causes of Climate Change

The greenhouse effect naturally regulates the Earth's temperature. However, human activity has increased the intensity of the greenhouse effect by releasing increasing amounts of GHGs into the atmosphere. GHGs can remain in the atmosphere for decades. The GHG emissions that are already in the atmosphere will continue to cause climate change for years to come, just as the warming being experienced now is the result of emissions produced in the past. Climatic changes are happening now and are projected to increase in frequency and severity before the benefits of GHG emission reductions will be realized.

Effects of Climate Change

Increased concentrations of GHGs in the atmosphere result in increased air, surface, and ocean temperatures. Many of the effects and impacts of climate change stem from resulting changes in temperature and meteorological responses to those changes.

Rising Temperatures. The Intergovernmental Panel on Climate Change, which includes more than 1,300 scientists from the United States and other countries, estimated that global temperatures have increased by about 2 degrees Fahrenheit (°F) during the 20th century (NASA 2020). The Intergovernmental Panel on Climate Change forecasts indicate that global temperatures can be expected to continue to rise between 2.5 and 10°F over the next century. According to the California Climate Adaptation Strategy (California Natural Resources Agency 2009), average state temperatures are currently predicted to increase 1.8 to 5.4°F by 2050 and 3.6 to 9°F by 2100. Some regional models show average temperatures in California increasing as much as 10.8°F. Achieving the low emission scenarios has become unlikely, while the probability of reaching the medium and high scenarios is believed to be more likely.

Gilroy has already experienced a rise in average temperatures. Winters are now shorter and warmer than they were 30 years ago. Temperatures in California have already risen 1°F on average. Cal-Adapt, a climate change projection modeling tool developed by California Energy Commission, indicates that temperatures in Gilroy have historically (1950-2005) averaged about 72.9°F. Average temperatures are projected to rise between 4.4 and 8.9°F by 2099, based on low and high emissions scenarios.

While temperatures are relatively low in Gilroy compared to other areas in the state, Gilroy will still experience temperature changes related to climate change. Gilroy has historically experienced four extreme heat days per year (over 99.7°F). The model projections fluctuate on an annual basis. The number of extreme heat days per year is expected to increase to 10 days by 2099 (Cal-Adapt 2020a).

Precipitation Levels. Precipitation levels are difficult to predict compared to other indicators of climate change. Annual rain and snowfall patterns vary widely from year to year, especially in California. Generally, higher temperatures increase evaporation and decrease snowfall, resulting in a drier climate. On average, Cal-Adapt projections show little change in total annual precipitation in California. Furthermore, among several models, precipitation projections do not show a consistent trend during the next century. The Mediterranean seasonal precipitation pattern is expected to continue, with most precipitation falling during winter from North Pacific storms. One of the four climate models projects slightly wetter winters, and another model projects slightly drier winters with a 10 to 20 percent decrease in total annual precipitation. However, even modest changes would have a significant impact because California ecosystems are conditioned to historical precipitation levels and water resources are nearly fully utilized.

Gilroy has historically averaged about 21.7 inches of rainfall per year. Average rainfall is forecast to increase to about 24.2 inches by the year 2099 (Cal-Adapt 2020b).

Reduced Snowpack. The Sierra Nevada snowpack acts as a large natural reservoir that stores water during the winter and releases it into rivers and reservoirs in the spring and summer. It is expected that there will be less snowfall in the Sierra Nevada and that the elevations at which snow falls will rise. Similarly, there will be less snowpack water storage to supply runoff water in the warmer months. It has already been documented that California's snow line is rising. More precipitation is expected to fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack. The spring snowpack in the Sierra Nevada decreased by 10 percent in the last century and may decrease as much as 70 to 90 percent by 2100 (Cal-Adapt 2020c). It is estimated that for each 1.8°F increase in Earth's average temperature, the Sierra snowpack will retreat 500 feet in elevation and an overall reduction of 25 to 40 percent reduction in snowpack by 2050 is projected.

The Sierra Nevada snowpack provides approximately 80 percent of California's annual water supply. The rapid decrease in snowpack and spring melt poses a threat to groundwater resources in many parts of the state where rivers that recharge groundwater with melt water from the Sierra Nevada will have reduced groundwater recharge potential.

More Frequent and Extreme Storm Events. Extreme weather is expected to become more common throughout California. More extreme storm events are expected to increase water runoff to streams and rivers during the winter months, heightening flood risks. Warmer ocean surface temperatures have caused warmer and wetter conditions in the Sierra

Nevada, increasing flood risk. Strong winter storms may produce atmospheric rivers that transport large amounts of water vapor from the Pacific Ocean to the California coast. They often last for days and drop heavy rain or snow for days. Storms involving such atmospheric rivers occurred during the winter of 2016-2017. As the strength of these storms increase and transport increased amounts of precipitation, the risk of flooding is increased.

Sea Level Rise. Sea level rise is one of the most significant effects of climate change. Sea level has been rising over the past century, and the rate has increased in recent decades. Global mean sea level in 2017 was the highest annual average in the satellite era (since 1993) with a value of 77 millimeters above the 1993 average (Hartfield, Blunden, and Arndt 2018). Globally, sea levels are rising due to two main reasons: thermal expansion of warming ocean water and melting of ice from glaciers and ice sheets. Rising sea levels amplify the threat and magnitude of storm surges in coastal areas. Water infrastructure, often located along the coast or tidally-influenced water bodies, can be vulnerable to greater changes in storm surge intensity. The threat of flooding and damage to water infrastructure will continue to increase over time as sea levels rise and the magnitude of storms increase. Rising sea levels will create stress on coastal ecosystems that provide recreation, protection from storms, and habitat for fish and wildlife, including commercially valuable fisheries. Rising sea levels can also introduce new, or exacerbate existing, saltwater intrusion into freshwater resources.

Diminished Air Quality. Climate change is expected to exacerbate air quality problems by increasing the frequency, duration, and intensity of conditions conducive to air pollution formation. Higher temperatures and increased ultraviolet radiation from climate change are expected to facilitate the chemical formation of more secondary air pollutants from ground-level sources. Conversely, decreased precipitation is expected to reduce the amount of particulates cleansed from the air. Incidents of wildfires are expected to increase due to climate change, further contributing to air quality problems.

According to the American Lung Association, Californians experience the worst air quality in the nation. Statewide, over 35 million Californians (91 percent) live in counties affected by unhealthy air during the year (American Lung Association 2018).

Ecosystem Changes. Climate change effects will have broad impacts on local and regional ecosystems, habitats, and wildlife as average temperatures increase, precipitation patterns change, and more extreme weather events occur. Species have adapted to natural, and more gradual, environmental changes for millions of years. Species that cannot adapt are at risk of extinction. Some species could increase their habitat range. The risk of extinction could increase for many species. As temperatures increase, California vegetation is expected to change. Desert and grassland vegetation are projected to increase while forest vegetation is projected to generally decline. The natural cycle of plant flowering and pollination, as well as the temperature conditions necessary for a thriving locally adapted agriculture, may also be affected. Perennial crops, such as grapes, may take years to recover. Increased temperatures also provide a foothold for invasive species of weeds, insects, and animals.

Social Vulnerability to Climate Change. The impacts of climate change will not affect people equally. People exposed to the most severe climate-related hazards are often those least able to cope with the associated impacts, due to their limited resources and adaptive capacity. Climate change is expected to have a greater impact on larger populations living in poorer and developing countries with lower incomes that rely on natural resources and agricultural systems that will likely be affected by changing climates.

Certain groups in developed countries like the United States will also experience more impacts from climate change than others. People in rural areas are more likely to be affected by climate change related droughts or severe storms compared to their urban counterparts. However, certain groups living in cities will also be at higher risk than others. Place of residence is another vulnerability indicator, as renters, households without air conditioning, households lacking access to grocery stores, households in treeless areas, and households on impervious land cover are also more vulnerable to climate change impacts.

Gilroy residents who are at greatest risk include children, the elderly, those with existing health problems, the socially and/or economically disadvantaged, those who are less mobile, and those who work outdoors.

Anticipated Climate Change Impacts in Gilroy

Global climate change will have a range of effects in Gilroy. As described in the Analysis, Impacts, and Mitigation section below, implementation of the Gilroy 2040 General Plan will result in generation of an increased volume of GHGs relative to current conditions. Hence, the project will contribute related effects, although the project's contribution will be extremely small relative to the contribution of global activities to climate change. These effects are summarized below.

Temperature Rise. According to the *California Climate Change Adaptation Strategy* (California Natural Resources Agency 2009), Gilroy can expect to experience increased average temperatures with overall hotter and drier conditions, reductions in winter snow, increases in winter rains, accelerating sea-level rise, and more extreme weather events. Extreme weather events (e.g., heat waves), wildfires, droughts, and floods are likely to be some of the earliest climate impacts.

Water Supply and Quality. Climate change is expected to increase pressure on and competition for water resources, further exacerbating already stretched water supplies. Decreasing snowpack and spring stream flows and increasing demand for water from a growing population and hotter climate could lead to increasing water shortages. Water supplies are also at risk from rising sea levels. The San Francisco Bay Area is expected to experience hotter and drier conditions and reduced snowpack that could cause reduced reservoir supplies, river flows, and water deliveries from state and federal water projects. In south Santa Clara County, domestic water supply consists of groundwater extractions that are balanced in part by Valley Water groundwater recharge programs. Extended drought conditions exacerbate the availability of groundwater supplies from the Llagas subbasin for

the city and other jurisdictions that draw water from the Llagas subbasin. Extended drought conditions have resulted in state and federal cutbacks on water deliveries used in Valley Water groundwater recharge programs (see related discussion in Section 3.11, Groundwater). Increased pumping and fewer water deliveries have resulted in an overall drop in groundwater levels and have caused a reduction in groundwater supply capacity. The region may experience more intense rainfall events that could increase demand for reservoir capacity to provide for water capture and storage. As a result, water supply is expected to decrease and water yields from reservoirs are expected to become more unreliable. Competition for water between cities, farmers, and the environment is expected to increase.

Changes to air and land temperatures will have an impact on the timing, amount, type, and location of precipitation and runoff. This will impact the quantity of water supplies, the management of those quantities, the quality of the source water, and the demand for treated drinking water. Anticipated changes to source water conditions including more intense storm events, longer drought periods, reduced snowpack at lower elevations, and earlier spring runoff will likely impact the quality of the source waters. Changes in source water quantity and quality may impact the treatment necessary to produce potable drinking water. These changes could result in additional treatment processes required and increased costs for treated drinking water in order to avoid potential for human health risk via drinking water consumption.

Health Effects/Illness. As temperatures rise from global warming, the frequency and severity of heat waves will grow and increase the potential for bad air days, which can lead to increases in illness and death due to dehydration, heart attack, stroke, and respiratory disease. Additionally, dry conditions can lead to a greater number of wildfires producing smoke that puts people with asthma and respiratory conditions at risk of illness or death.

Higher temperatures and the increased frequency of heat waves are expected to significantly increase heat-related illnesses, such as heat exhaustion and heat stroke, while also exacerbating conditions associated with cardiovascular and respiratory diseases, diabetes, nervous system disorders, emphysema, and epilepsy. An increase of 10°F in average daily temperature is associated with a 2.3 percent increase in mortality. During heat waves mortality rates can increase to about nine percent. By 2099, Gilroy could experience up to a twelve percent increase in average temperature and up to 10 heat waves per year. As temperatures in Gilroy increase, vulnerable populations such as children, the elderly, people with existing illnesses, and people who work outdoors will face the greatest risk of heat-related illness.

As climate change affects the temperature, humidity, and rainfall levels across California, some areas could become more suitable habitats for insects (especially mosquitoes), ticks, and mites that may carry diseases. Wetter regions are typically more susceptible to vector-borne diseases, especially human hantavirus cardiopulmonary syndrome, Lyme disease,

and West Nile virus. Gilroy is projected to have warmer winters with up to approximately 24.2 inches of rain by 2099. This may attract vector populations (e.g., mosquito inhabited still-water pools may become more prolific). Floods can also increase the food supply available to rodents that may transmit Lyme disease, plague, tularemia, and rickettsial infections. In each of these cases the increase in vector-borne disease occurrences is expected to impact public health and increase demand on health care systems.

Finally, increased health and safety impacts are expected to cause a corresponding increase in demand for health care and place additional strain on health care systems by overloading emergency rooms and medical facilities. As a result, residents and businesses may experience increased health care costs and higher insurance premiums.

Flood Risk. Increased flood frequency and elevated flood risk are expected in California as a result of sea level rise, more intense storm events, and shifts in the seasonal timing of rainfall and snowpack runoff. Gilroy is protected by a system of levees that will be further strained to meet the challenges expected from sea level rise and more extreme storm events. Additionally, more frequent and heavier precipitation may cause flooding and landslides, which would result in considerable costs in damages to property, infrastructure, and even human life.

Gilroy is bound to the southwest and to the east by Uvas Creek and Llagas Creek respectively. Large portions of the Gilroy area are subject to flood hazards due to seasonal run-off along these creeks. The problem is particularly acute in the eastern agricultural areas along Llagas Creek and along the southern portion of Uvas Creek.

As of 2005, 25 miles of Gilroy's roadways are in the 100-year flood plain, while an additional 93 miles are in other flood-prone areas. A totally of 869 of acres are in the 100-year flood plain, while an additional 3,190 acres are in other flood-prone areas. Twenty-four city-owned critical facilities are in the 100-year flood plain. Sixty-four out of the city's 78 identified critical facilities are at risk of being inundated from one or more dams failing. Five health care facilities and nine schools are in other flood-prone areas.

Fire Risk. Gilroy's western hillside areas pose a high fire hazard for the residents who live there, especially along the "wildland-urban interface." These areas are subject to special development controls to help reduce the potential loss of life and property in the event of a local wildfire. As of 2005, 189 acres are subject to high or very high wildfire threat (because of the urban-rural interface of the city's western perimeter), and 2,938 acres of urban land uses are in the wildland-urban interface threat areas. Reductions in precipitation that could result from climate change could result in enhanced fire risk in areas already prone to high fire hazard.

Economic Growth and Stability. Economic impacts due to climate change will likely affect all sectors of the economy with negative consequences. A study conducted in 2008 by the University of California, Berkeley, and Next10, estimated that if no action is taken, potential

statewide direct costs due to climate change-induced damage could exceed tens of billions of dollars annually, with even higher direct economic costs and placing trillions of dollars of real estate at risk. Residents, businesses, and public agencies will likely see everyday costs for food and services increase. Costs will increase to cover energy, water, food, health, and potential property damage effects leaving less money for discretionary household spending, business investment and profits, and government services.

Greenhouse Gas Types

GHGs are emitted by natural processes and human activities. The human-produced GHGs most responsible for global warming and their relative contribution to it are carbon dioxide, methane, nitrous oxide and chlorofluorocarbons. The contribution of these GHGs to the U.S. inventory of GHGs in 2017 is summarized in Table 3.7-1, Greenhouse Gas Types and Their Contribution to Global Warming.

Table 3.7-1 Greenhouse Gas Types and Their Contribution to Global Warming

Greenhouse Gas	Percent of all GHG	Typical Sources
Carbon dioxide (CO_2)	81.6 percent	Combustion of fuels, solid waste, wood
Methane (CH_4)	10.2 percent	Fuel production/combustion, livestock, decay of organic materials
Nitrous Oxide (N_2O)	5.6 percent	Combustion of fuels, solid waste, agricultural and industrial processes
Chlorofluorocarbons (CFCs)	2.6 percent	Industrial processes

Source: United States Environmental Protection Agency 2019b.
Note: Percentages reflect weighting for global warming potential.

Greenhouse Gas Global Warming Potentials

Each type of GHG has a different capacity to trap heat in the atmosphere and each type remains in the atmosphere for a particular length of time. The ability of a GHG to trap heat is measured by an index called the global warming potential expressed as carbon dioxide equivalent. Carbon dioxide is considered the baseline GHG in this index and has a global warming potential of one. Methane has a global warming potential of 21 times that of carbon dioxide and nitrous oxide has a global warming potential of 310 times that of CO_2. The families of chlorofluorocarbons, hydrofluorocarbons and perfluorocarbons have a substantially greater global warming potential than other GHGs, generally ranging from approximately 1,300 to over 10,000 times that of CO_2. Table 3.7-2, Greenhouse Gas Global Warming Potentials, presents data on the global warming potential of various GHGs. While CO_2 represents the vast majority of the total volume of GHGs released into the atmosphere, the release of even small quantities of other types of GHGs can be significant for their contribution to climate change.

Table 3.7-2 Greenhouse Gas Global Warming Potentials

GHG	Atmospheric Lifetime (Years)	Global Warming Potential (100-Year Time Horizon)
Carbon Dioxide CO_2	50-200	1
Methane CH_4	12 (+/- 3)	21
Nitrous Oxide N_2O	120	310
HFC-23	264	11,700
HFC-134a	14.6	1,300
HFC-152a	1.5	140
PFC Tetrafluoromethane CF_4	50,000	6,500
PFC Hexafluoroethane C_2F_6	10,000	9,200
Sulfur Hexaflouride SF_6	3,200	23,900

Source: United Nations Framework Convention on Climate Change 2020.

The GHG volume produced by a particular source is often express in terms of carbon dioxide equivalent (CO_2e). Carbon dioxide equivalent describes how much global warming a given type of GHG will cause, with the global warming potential of CO_2 as the base reference. It is useful because it allows comparisons of the impact from many different GHGs, such as methane, perfluorocarbons or nitrous oxide. If a project is a source of several types of GHGs, their individual global warming potential can be standardized and expressed in terms of CO_2e.

Inventories of Greenhouse Gases

California GHG Emissions Inventory. California is a substantial contributor of global greenhouse gases. Based on the California Air Resources Board's (CARB) current state GHG inventory data, a net of about 424.1 million metric tons (MMT) of CO_2e were generated in 2017 (California Air Resources Board 2020d). In 2017, about 41 percent of all GHG gases emitted in the state came from the transportation sector. Industrial uses and electric power generation (in state generation and out of state generation for imported electricity) were the second and third largest categories at about 24 percent and 15 percent, respectively. The commercial and residential use sectors combined to generate about 12 percent of the 2017 emissions, while the agricultural sector contributed about 8 percent.

City of Gilroy GHG Emissions Inventory. Under a Santa Clara County regional climate mitigation and adaptation initiative known as Silicon Valley 2.0, the Santa Clara County Office of Sustainability and Pacific Gas & Electric (PG&E) provided grant funding to several cities to prepare their own climate action plans. The City of Gilroy participated in the initiative and completed the *City of Gilroy Climate Action Plan Administrative Draft* (AECOM 2015) in June 2015. Contact the City of Gilroy Planning Department for a copy of the document. The *City of Gilroy Climate Action Plan Administrative Draft* included a baseline GHG inventory (completed in 2013 for the baseline year of 2010) and GHG forecasts and target reductions for 2020 and 2035.

Gilroy's baseline GHG emissions inventory totaled 258,246 metric tons (MT) CO_2e in 2010. The energy sector was the largest contributor of GHG emissions in the city (56 percent), with transportation sector emissions contributing the majority of the remainder (37 percent). Off-road sources comprised three percent of the inventory, and solid waste emissions provide another two percent. Potable water use and wastewater treatment are both small contributors by comparison and made up the balance of about two percent of the inventory. Total business-as-usual emissions volumes of 294,509 MT CO_2e and 389,175 MT CO_2e were forecast for the years 2020 and 2035, respectively. The order of the sector contributions to these volumes are the same as reported for the 2010 inventory, but over time, the ratio of energy to transportation sector emissions declines. In 2035, energy is projected to comprise approximately 49 percent of total emissions, while transportation would comprise approximately 45 percent.

Policy and Regulatory Setting

State and regional policies and regulations pertaining to climate change are summarized below. These provide context for how climate change is being addressed and to identify policy and regulatory actions whose implementation would lessen the contribution of the proposed project to climate change. The federal government is also taking significant regulatory steps toward addressing climate change. Generally, California policy and regulations are as or more comprehensive than federal actions, therefore, this regulatory section focuses on state activity. A number of policies and programs are included in the Gilroy 2040 General Plan are directly targeted to reduce GHG, while others would indirectly reduce GHGs.

State

Statutes Setting Statewide GHG Reduction Targets

California Assembly Bill 32 (Global Warming Solutions Act). In September 2006, Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. 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 consistent with Executive Order S-03-05. 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 the CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources.

Senate Bill 32. Effective January 1, 2017, Senate Bill (SB) 32 added a new section 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." SB 32 requires California, by the year 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 ambitious GHG reduction targets included within certain high-profile 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. 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, former Governor Brown issued another Executive Order, B-30-15, which created a new interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030. The 2030 GHG reduction target in SB 32 is consistent with statewide emissions reduction target set forth in Executive Order B-30-15.

The Legislature has not yet set a 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. In the 2015 legislative session, the Legislature passed SB 350, which is discussed in more detail below. This legislation 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, in consultation with CARB and the California Energy Commission, 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."

Statutes Setting Targets for the Use of Renewable Energy for the Generation of Electricity

California Renewables Portfolio Standard. In September 2002, the Legislature enacted SB 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. The legislation set a target by which 20 percent of the State's electricity would be generated by renewable sources. As described in the Legislative Counsel's Digest, SB 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 September 2006, the Legislature enacted SB 107, 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. In April 2011, the Legislature, in a special session, enacted SB X1-2, which 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.

In 2015, the Legislature enacted SB 350. SB 350 embodies a policy encouraging a substantial increase in the use of electric vehicles and increased the Renewable Portfolio Standard (RPS) to require 50 percent of electricity generated to be from renewables by 2030. On September 10, 2018, former Governor Brown signed into law SB 100 and Executive Order B-55-18. The most significant aspect of the bill is a requirement that 100 percent of electricity in California must be obtained from renewable and zero carbon energy resources by 2045. To support this goal, SB 100 also raises California's RPS requirement to 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. SB 100 also requires that retail sellers and local publicly owned electric utilities procure an increasing percentage of their electricity from a minimum quantity of electricity products from eligible renewable energy resources to achieve the 60 percent target by 2030. In addition to targets under AB 32 and SB 32, Executive Order B-55-18 establishes a carbon

neutrality goal for California by 2045 that reinforces the SB 100 carbon neutrality goal and goes further to set a net negative emissions goal after 2045.

As noted earlier, the Public Utilities Code now states that the California Public Utilities Commission, in consultation with CARB and the California Energy Commission, 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."

In March 2012, former Governor Brown issued an Executive Order, B-16-12, which embodied a similar vision of a future in which zero-emission vehicles 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 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 "zero-emission vehicles ready;"
- By 2020, the state will have established adequate infrastructure to support one million zero-emission vehicles in California;
- By 2025, there will be 1.5 million zero-emission vehicles on the road in California; and
- By 2050, virtually all personal transportation in the State will be based on zero-emission vehicles, and greenhouse gas emissions from the transportation sector will be reduced by 80 percent below 1990 levels.

In sum, California has set a statutory goal of requiring that, by the year 2030, 60 percent of the electricity generated in California should be from renewable sources, with increased generation capacity intended to be sufficient to allow the mass conversion of the statewide vehicle fleet from petroleum-fueled vehicles to electrical vehicles and/or other zero-emission vehicles. 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 California Air Resources Board Regulations Addressing the Carbon Intensity of Petroleum-based Transportation Fuels

AB 1493, Pavley Clean Cars Standards. In July 2002, the Legislature enacted AB 1493 ("Pavley Bill"), 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. 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."

In January 2012, CARB adopted an Advanced Clean Cars program aimed at reducing both smog-causing pollutants and GHG emissions for vehicles model years 2017-2025. This historic program 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 Advanced Clean Cars program are the low-emission vehicle regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the zero-emission vehicle regulation, which requires manufacturers to produce an increasing number of pure zero-emission vehicles (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.

It is expected that the Advanced Clean Car 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.

Statutes Intended to Facilitate Land Use Planning Consistent with Statewide Climate Objectives

California SB 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 the years 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.

In 2013, the San Francisco Bay Metropolitan Transportation Commission and the Association of Bay Area Governments jointly approved Plan Bay Area, which includes the region's Sustainable Communities Strategy and the 2040 Regional Transportation Plan. Plan Bay Area includes a target of reducing GHGs to seven percent below 2005 emissions levels by 2020, and 15 percent below 2005 levels by 2035.

Local agencies that adopt land use, housing, and transportation policies that are consistent with and facilitate implementation of the related GHG reduction strategies in a sustainable communities strategy benefit through potential CEQA streamlining for qualifying projects proposed within their boundaries. Adoption of such policies can be a part of a general plan update or other similar policy adoption process. However, a local agency's general plan is not required to be consistent with a sustainable communities strategy.

Scoping Plans

AB 32 Scoping Plan. In December 2008, CARB adopted the Climate Change Scoping Plan, which contains the main strategies California will implement to achieve reduction of approximately 118 MMT CO_2e, or approximately 22 percent from the state's projected 2020 emission level of 545 MMT of CO_2e under a business-as-usual scenario This is a reduction of 47 MMT CO_2e, or almost 10 percent, from 2008 emissions. CARB's original 2020 projection was 596 MMT CO_2e, but this revised 2020 projection takes into account the economic downturn that occurred in 2008. The Scoping Plan also includes CARB recommended GHG reductions for each emissions sector of the state GHG inventory. CARB estimates the largest reductions in GHG emissions would be by implementing the following measures and standards:

- Improved emissions standards for light-duty vehicles (26.1 MMT CO_2e),
- The Low Carbon Fuel Standard (LCFS) (15.0 MMT CO_2e),
- Energy efficiency measures in buildings and appliances (11.9 MMT CO_2e), and
- RPS for electricity production (23.4 MMT CO_2e).

In 2011, CARB adopted a cap-and-trade regulation. The cap-and-trade program covers major sources of GHG emissions in the state such as refineries, power plants, industrial facilities, and transportation fuels. The cap-and-trade program includes an enforceable emissions cap that will decline over time. The state distributes allowances, which are tradable permits, equal to the emissions allowed under the cap. Sources under the cap are required to surrender allowances and offsets equal to their emissions at the end of each compliance period. Enforceable compliance obligations started in 2013. The program applies to facilities that comprise 85 percent of the states GHG emissions.

With regard to land use planning, the Scoping Plan expects that reductions of approximately 3.0 MMT CO_2e will be achieved through implementation of SB 375, which is discussed further below.

2014 Scoping Plan Update. In response to comments on the 2008 Scoping Plan, and AB 32's requirement to update the Scoping Plan every five years, CARB revised and reapproved the Scoping Plan, and prepared the First Update to the 2008 Scoping Plan in 2014 (2014 Scoping Plan). The 2014 Scoping Plan contains the main strategies California will implement to

achieve a reduction of 80 MMT of CO_2e emissions, or approximately 16 percent, from the state's projected 2020 emission level of 507 MMT of CO_2e under the business-as-usual scenario defined in the 2014 Scoping Plan. The 2014 Scoping Plan also includes a breakdown of the amount of GHG reductions CARB recommends for each emissions sector of the state's GHG inventory. Several strategies to reduce GHG emissions are included: the LCFS, the Pavley Rule, the Advanced Clean Cars program, the RPS, and the Sustainable Communities Strategy.

2017 Scoping Plan. With the passage of SB 32, the Legislature also passed companion legislation AB 197, which provides additional direction for developing the scoping plan. CARB adopted the final 2017 Scoping Plan in November 2017. The 2017 Scoping Plan represents a second update to the scoping plan to reflect 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 proposes to implement to meet the target include:

- SB 350 - achieve 50 percent Renewables Portfolio Standard by 2030 and doubling of energy efficiency savings by 2030;
- LCFS - 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 greenhouse gas 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.

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 California Building Standards Code, was first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The California Energy Code is updated every three years by the California Energy Commission as the Building Energy Efficiency Standards (BEES) to allow consideration and possible incorporation of new energy efficiency technologies and construction methods. Although the BEES were not originally intended to reduce GHG emissions, increased energy efficiency results in decreased GHG emissions because energy efficient buildings require less electricity. With less energy demand, the volume of GHG emissions produced as a byproduct of electricity production at fossil fuel powered power plants is reduced. The BEES apply to new construction of, and additions and alterations to, residential and nonresidential buildings.

In May 2018, the California Energy Commission adopted the 2019 BEES. The 2019 BEES went into effect on January 1, 2020. Residential and non-residential buildings permitted after January 1, 2020 are required to comply with the 2019 BEES. The 2019 BEES are structured to achieve the state's goal that all new low-rise residential buildings (single-family and multi-family homes) be zero net energy. That is, the amount of energy provided by on-site renewable energy sources is equal to the amount of energy used by the homes. For residential buildings, the 2019 BEES encourage "demand responsive technologies" including battery storage and heat pump water heaters, and require improved the building thermal envelopes through high performance attics, walls and windows. In non-residential buildings, the 2019 BEES update indoor and outdoor lighting making maximum use of LED technology. For both residential and nonresidential buildings, the 2019 BEES enable the use of highly efficient air filters to trap hazardous particulates from both outdoor air and cooking and improve kitchen ventilation systems. Single-family homes built with the 2019 BEES will use about seven percent less energy due to energy efficiency measures versus those built under the 2016 BEES. Once rooftop solar electricity generation is factored in, homes built under the 2019 BEES will use about 53 percent less energy than those under the 2016 BEES. Non-residential buildings will use about 30 percent less energy compared to the 2016 BEES, mainly due to lighting upgrades (California Energy Commission 2018).

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 were most recently updated in July 2019, instituted mandatory and voluntary 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:

- Water conserving plumbing fixtures and fittings for indoor water use;
- 65 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: on-site renewable energy generation, 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, 90 percent resilient flooring systems, electric vehicle charging spaces, thermal insulation, and cool/solar reflective roof; and
- Tier II: on-site renewable energy generation, stricter water conservation requirements for specific fixtures, 75 percent reduction in construction waste, 15 percent recycled content, 30 percent permeable paving, 25 percent cement reduction, 100 percent resilient flooring, electric vehicle charging spaces, thermal insulation, and cool/solar reflective roof.

Regional

Bay Area Air Quality Management District Guidance. The air district is charged with managing air quality within its boundaries. Regional guidance on GHG emissions is provided in the *2017 Bay Area Air Quality Management District CEQA Air Quality Guidelines* (2017 CEQA Guidelines) and *2017 Clean Air Plan: Spare the Air, Cool the Climate* (2017 Clean Air Plan). Neither of these documents serve as a qualified climate action plan from which the analysis of project impacts and mitigations can be tiered or streamlined. These documents are discussed below for informational purposes.

The air district has published comprehensive guidance on evaluating, determining significance of, and mitigating GHG impacts of projects and plans. The guidance is contained in the 2017 CEQA Guidelines (Bay Area Air Quality Management District 2017a). The 2017 CEQA Guidelines identify two thresholds of significance options for operational-related GHG emissions for plan projects (e.g. general plans, specific plans, community plans, regional plans, congestion management plans, etc.): 1) consistency with an adopted GHG reduction strategy, or 2) emissions below 6.6 MT CO_2e per year per service population (residents + employees). The air district does not have construction-related thresholds for GHG emissions at a plan-level.

These thresholds of significance are based on AB 32 GHG emission reduction goals for the year 2020. The general plan buildout year is 2040. Therefore, the air district's thresholds do not address GHG emissions reduction needed after 2020 to keep statewide emissions on a path toward meeting the 2030 SB 32 emissions reduction target for 2040.

The air district adopted the 2017 Clean Air Plan on April 19, 2017. The 2017 Clean Air Plan defines a vision for achieving 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.

There are 85 control measures in the 2017 Clean Air Plan, many of which are applicable only for regional or government implementation. The 2017 Clean Air Plan control measures that address GHG emissions include TR1: Clean Air Teleworking Initiative, TR 2: Trip Reduction Programs, TR19: Medium and Heavy Duty Trucks, TR 22: Construction, Freight, and Farming Equipment, BL1: Green Buildings, BL2: Decarbonize Buildings, BL4: Urban Heat Island Mitigation, and SL1: Short-Lived Climate Pollutants.

City of Gilroy

City of Gilroy Climate Action Plan Administrative Draft. Under a Santa Clara County regional climate mitigation and adaptation initiative known as Silicon Valley 2.0, the Santa Clara County Office of Sustainability and PG&E provided grant funding to several cities to prepare their own climate actions plans. The City of Gilroy participated in in the initiative. Assistance to the city addressed all components of a climate action plan, including a baseline GHG inventory (completed in 2013 for the baseline year of 2010), development of GHG forecasts and target reductions for 2020 and 2035, development of a draft climate action plan template, a gap analysis to identify current city efforts to reduce GHG emissions and additional opportunities to do so, and development of a menu of strategies/policies/programs that could be used to reduce communitywide emissions to meet 2020 and 2035 emissions reductions targets identified in the climate action plan.

This effort culminated in preparation of the *City of Gilroy Climate Action Plan Administrative Draft* ("administrative draft climate action plan") in June 2015. The GHG emissions reduction targets included in the administrative draft climate action plan were 15 percent below 2010 emissions levels for 2020 and 49 percent below 2010 emissions levels for 2035. The GHG reduction measures in the administrative draft climate action plan achieved reductions of 13.2 percent in 2020 and 42.5 percent in 2035. Since the reduction measures did not meet the community-wide emissions reduction targets and the document would not have served as a qualified plan for reducing GHG emissions, the administrative draft climate action plan was not formally adopted.

Thresholds of Significance

The City of Gilroy thresholds of significance currently do not address GHG emissions. Appendix G of the CEQA Guidelines indicates that a project may have a significant effect on the environment if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, or
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Analysis, Impacts, and Mitigation

IMPACT	Generate a Volume of GHG Emissions in 2040 That May Have a Significant Impact on Climate Change	Interim Significant and Unavoidable

State guidance and legislation, and case law regarding GHG emissions is continually evolving. The impact analysis methodology used in this EIR reflects current practice regarding plan projects. Interim 2030 effects are considered first in solely as a basis for measuring progress towards achieving emissions reductions needed at 2040 buildout. Year 2040 buildout impacts are then evaluated and used as the basis for determining the significance of project impacts.

Generation of GHG Emissions in 2030 – Interim Project Effects with Reference to SB 32

As described in the Policy and Regulatory Setting section above, SB 32 establishes a statewide year 2030 GHG reduction target of 40 percent below 1990 levels by 2030. The 2030 target is the successor to the 2020 target of 29 percent below business-as-usual established in AB 32 and the 2008 Scoping Plan.

The 2030 reduction target is relevant because 2030 is the mid-point in the 20-year planning horizon for buildout of the Gilroy 2040 General Plan. Thus, it is a representative reference point for assessing interim effects of the proposed project.

To derive an appropriate 2030 emissions reduction target for use in this analysis, several factors were considered. First, as guidance to local agencies, the 2017 Scoping Plan recommends a target for plan level projects of no more than 6 MT CO_2e per capita by 2030 and no more than 2 MT CO_2e per capita by 2050 (2017 Scoping Plan, p. 99). However, CARB acknowledges that these targets are based on the statewide GHG emissions inventory that includes all emissions sectors in the state (including large industrial sources covered under the State's Cap-and-Trade Program), and that it may be appropriate for local jurisdictions to derive evidence-based local per-capita goals based on local emissions sectors and growth projections. Emissions in a local jurisdiction's GHG inventory commonly do not include all

the emissions sectors included in the statewide inventory. Therefore, use of a statewide emissions reduction target as a threshold of significance for plans level projects of a local agency may not be appropriate. Rather, the most common sources of GHG emissions within most local jurisdiction are those related to land use (development) projects that are commonly of a residential, commercial, and industrial nature. This is the case in the City of Gilroy.

To more accurately relate the 2030 statewide GHG emissions reduction target to the local City of Gilroy emissions context, a 2030 target was derived based on the land use driven emissions components of the state 2020 GHG emissions inventory. Land use driven emissions are those from sources that function to support population and employment growth. Emissions sectors that would not accommodate projected new population or employment growth were eliminated. For example, emissions associated with ocean transport or agriculture are not related to new land use driven emissions and generally are not produced in most incorporated cities. Conversely, emissions associated with on-road transportation, electricity production, natural gas combustion, wastewater treatment, and solid waste from commercial and residential land uses are land use driven, as they contribute to accommodating new population and employment growth. Table 3.7-3, 2020 California Greenhouse Gas Inventory for Land Use Driven Emissions, shows the 2020 state emissions inventory for land use driven GHG emissions. Total land use driven emissions are projected at 286.70 MMT CO_2e.

Table 3.7-3 2020 California Greenhouse Gas Inventory for Land Use Driven Emissions

Land Use Type	Emissions (MMT CO_2e)
On-Road Transportation	
Passenger Cars	63.77
Light Duty Trucks	44.75
Motorcycles	0.43
Heavy Duty Trucks	29.03
Freight	0.02
Subtotal	138.00
Electricity Generation In-State	
Commercial Cogeneration	0.70
Merchant Owned	2.33
Transmission and Distribution	1.56
Utility Owned	29.92
Subtotal	34.51
Electricity Generation Out-of-State	
Specified Imports	29.61

Land Use Type	Emissions (MMT CO_2e)
Transmission and Distribution	1.02
Unspecified Imports	30.96
Subtotal	61.59
Commercial	
CHP: Commercial	0.40
Communication	0.07
Domestic Utilities	0.34
Education	1.42
Food Services	1.89
Healthcare	1.32
Hotels	0.67
Not Specified Commercial	5.58
Offices	1.46
Retail & Wholesale	0.68
Transportation Services	0.03
Subtotal	13.86
Residential	
Household Use	29.66
Subtotal	29.66
Industrial	
Landfills	6.26
Domestic Wastewater Treatment	2.83
Subtotal	9.09
Total Emissions	286.70

Source: CARB. No date.

CARB stated in the *First Update to the Climate Change Scoping Plan: Pursuant to AB 32, The California Global Warming Solutions Act of 2006* that an average statewide GHG reduction of 5.2 percent per year from the projected statewide year 2020 GHG emissions inventory volume will be needed to stay on a trajectory to achieve state reduction targets for 2030. This rate of emissions reduction was applied to the 2020 land use driven emissions inventory volume of 286.70 MMT CO_2e shown in Table 3.7-3 for consecutive years to derive a statewide volume of emissions that are land use driven. The result is an emissions volume of 168.08 MMT CO_2e in 2030. This is the volume of statewide emissions from land use driven emissions sectors that must be achieved in 2030 for California to meet the statewide emissions reduction goal embodied in SB 32. The projected 2030 statewide population is

43,631,295 (California Department of Finance 2019). The 2030 statewide reduction target for emissions from land use driven sectors is 168.08 MMT CO_2e/43,631,295, or 3.85 MT CO_2e per capita. This target is referenced here as an interim target appropriate for Gilroy, as it more accurately reflects land use driven emissions sectors and conditions in Gilroy than does the statewide 2017 Scoping Plan target of 6 MMT CO_2e for all emissions sectors.

2030 Emissions Projections for Gilroy. GHG emissions in the year 2030 resulting from continued growth in the city per the Gilroy 2040 General Plan were projected assuming 50 percent of the 2040 buildout conditions. The Emissions Factor Model (EMFAC2017) version 1.0.2 developed by CARB was used to model annual operational mobile source GHG emissions. EMFAC2017 can be used to assess emissions from on-road vehicles including cars, trucks, and buses in California. The California Emissions Estimator Model (CalEEMod) version 2016.3.2 was used to estimate construction and operational, non-mobile GHG emissions. The primary non-mobile sources of GHGs include energy use (electricity and natural gas), solid waste, water and wastewater, and area sources (landscaping). The EMFAC2017 and CalEEMod modeling results for 2030 conditions are included in Appendix E along with a memorandum describing the modeling assumptions and methodology.

EMFAC2017 2030 Operational, Mobile Source GHG Modeling and Results. The EMFAC2017 model uses vehicle miles travelled (VMT) as the primary input. The main GHG emission from transportation sources is CO2. Other related GHGs include methane CH4 and N2O, but these sources constitute a very small percentage of total mobile source GHGs relative to CO2 and are not addressed further. Total VMT under Gilroy 2040 General Plan buildout conditions was assessed as part of the *City of Gilroy 2040 General Plan Draft Transportation Analysis* (Hexagon Transportation Consultants 2020) (traffic report) included in Appendix G. The traffic analysis reports 2040 daily VMT at 2,446,223 miles. Assuming a constant rate of annual VMT growth rate over the 20-year planning period, the total daily VMT in 2030 would be 50 percent of the 2040 daily VMT, or 1,223,112 miles.

EMFAC includes assumptions about the types of vehicles (e.g. passenger vehicles, light duty trucks, heavy duty trucks, etc.) and types of fuels used by each that would comprise the vehicle fleet operating in 2040. EMFAC also includes air pollutant emissions factors for each type of vehicle by fuel type and by emission source (e.g. vehicle starts, vehicle idling, etc.). Further, the model includes assumptions about expected emissions factor reductions and rates that result from implementation of state and federal regulations that directly or indirectly affect vehicle emissions, especially GHG emissions. These regulations include the Pavley 1, Advanced Clean Car Standards, Smartway/Phase I Heavy Duty Vehicle Greenhouse Gas Regulation, and on-road diesel fleet rules promulgated by the state.

The EMFAC2017 model projects 2030 CO_2 emissions at 376.60 tons per day. GHG emissions volumes are typically reported in MT per year. A U.S. ton is equal to 0.907 MT. The converted GHG volume per day is 341.58 MT CO_2. The daily volume is then multiplied by

347 days per year to arrive at annual CO_2 emissions. Daily emissions are multiplied by 347 days per year rather than 365 days per year to scale average annual emissions to reflect that weekday VMT are higher than weekend VMT (California Air Resources Board 2016b). Total annual CO_2 emissions are projected at 118,528.26 MT CO_2 in 2030. EMFAC2017 also calculates daily CH_4 emissions, but the total annual volume is incidental compared to CO_2, so is not included in the total annual volume.

The EMFAC2017 results are considered to be conservative because they do not reflect the reduction in mobile source GHG emissions expected to occur with implementation of Gilroy 2040 General Plan policies and programs that could result in VMT reductions as described below.

CalEEMod 2030 Construction and Operational, Non-Mobile Source Modeling and Results. Construction and operational, non-mobile source GHG emissions were estimated using CalEEMod, which calculates annual average GHG emissions in MT CO_2e. Land use information from the Gilroy 2040 General Plan was utilized as the primary data input to the CalEEMod model. A multitude of assumptions were made to derive inputs to CalEEMod. These are summarized in Appendix E along with the model results.

Construction activity up to year 2030 is estimated to generate a maximum of 8,951.56 MT CO_2e of GHG emissions. Annual construction GHG emissions are 8,951.56 MT CO_2e/10 years = 895.16 MT CO_2e per year.

Table 3.7-4, 2030 Annual Operational, Non-Mobile Source Greenhouse Gas Emissions, summarizes operational, non-mobile emissions volumes in 2030. Detailed CalEEMod results are included in Appendix E.

Table 3.7-4 2030 Annual Operational, Non-Mobile Source Greenhouse Emissions

Condition	GHG Source	MT CO_2e/Year[1]
General Plan Interim - 2030	Area	442.68
	Energy	28,567.22
	Waste	5,300.90
	Water	4,364.01
	Total	38,674.81

Source: EMC Planning Group 2020.
Notes: 1. Numbers may vary due to rounding.

Total 2030 Annual Interim GHG Emissions. Table 3.7-5, Total Annual General Plan Interim Greenhouse Gas Emissions in Year 2030, presents the sum of operational (mobile source and non-mobile source) and construction GHG emissions estimates described above. The total 2030 GHG emissions are projected at 158,098.23 MT CO_2e/year.

Table 3.7-5 Total Annual General Plan Interim Greenhouse Gas Emissions in Year 2030

Condition	GHG Source	MT CO_2e/Year[1]
General Plan Interim - 2030	Operational, mobile	118,528.26
	Operational, non-mobile	38,674.81
	Construction	895.16
	Total	158,098.23

Source: EMC Planning Group 2020.
Notes: 1. Numbers may vary due to rounding.

2030 Interim GHG Effects. As discussed earlier, the interim GHG reduction target for the year 2030 is 3.85 MT CO_2e per capita. The total GHG emissions in 2030 are estimated at 158,098.23 MT CO_2e. According to Table 2.2-2, Population Projections, in Section 2.0, Project Description, the population increase associated with buildout of the Gilroy 2040 General Plan land uses is 19,756. The population increase in 2030 can be estimated at 50 percent of the population increase in 2040, or 9,878. The per capita rate of emissions in 2030 is projected at 158,098.23/9,878 or 16 MT CO_2e/capita/year, which exceeds the 2030 interim target.

This analysis does not consider reductions in GHG emissions expected to accrue from state regulations not built into EMFAC2017 (i.e., LCFS) or CalEEMod (i.e., RPS, 2019 BEES), and from implementing a range of policies and programs in the Gilroy 2040 General Plan whose implementation would result in GHG reductions.

Generation of GHG Emissions in 2040 at General Plan Buildout

The methodology used in this section to quantify changes in GHG emissions with buildout of the 2040 Gilroy General Plan is similar to that used to evaluate interim 2030 effects described above. However, the 2030 and 2040 analyses differ in important ways. First, this 2040 analysis is the basis for making a determination of the significance of GHG impacts. Second, the interim 2030 GHG emissions reduction target of 3.85 MT CO2e per capita is modified to create a 2040 threshold of significance. The 2030 target represents the midpoint of the 2040 Gilroy General Plan 20-year planning period. If constant annual growth in the city is assumed between 2020 and 2040, the 2040 emissions 50 percent of the interim 2030 target, or 1.93 MT CO2e per capita. The extent to which 2040 buildout emissions do or don't meet this threshold is also an indicator of whether the city is or is not on a trajectory to meet the 2050 emissions reduction target of 80 percent below identified in Executive Order S-3-05.

Year 2040 GHG emissions were projected by combining EMFAC2017 modeling results for mobile source emissions and CalEEMod results for construction and operational, non-mobile GHG emissions. The EMFAC2017 and CalEEMod modeling results are included in Appendix E along with a memorandum describing the modeling assumptions and methodology.

EMFAC2017 2040 Operational, Mobile Source GHG Modeling and Results. As previously described, VMT is used as an input to the EMFAC2017 model. Total VMT under Gilroy 2040 General Plan buildout conditions was assessed as part of the traffic report (Hexagon Transportation Consultants 2020) included in Appendix G. As is standard practice, total VMT is calculated as the sum of miles traveled from vehicle trips with origin and destination within the city, and 50 percent of trips with origin or destination in the city. Total 2040 daily VMT is projected at 2,446,223 miles. The EMFAC2017 model projects 2040 CO_2 emissions at 671.10 tons per day, which is equivalent to 608.69 MT CO_2. The daily volume is then multiplied by 347 days per year to arrive at annual CO_2 emissions. Daily emissions are multiplied by 347 days per year rather than 365 days per year to scale average annual emissions to reflect that weekday VMT are higher than weekend VMT (California Air Resources Board 2016b). Total annual mobile source CO_2 emissions are projected at 211,215.43 MT CO_2 in 2040. EMFAC2017 also calculates daily CH_4 emissions, but the total annual volume is incidental compared to CO_2, so is not included in the total annual volume.

The EMFAC2017 results are considered to be conservative because they do not reflect the reduction in mobile source GHG emissions expected to occur due to State regulations, including the LCFS, and with implementation of the Gilroy 2040 General Plan policies and programs as described below.

CalEEMod 2040 Construction and Operational, Non-Mobile Source Modeling and Results. Land use information from the Gilroy 2040 General Plan was utilized as the primary data input to the CalEEMod model. A multitude of assumptions were made to derive inputs to CalEEMod. These are summarized in Appendix E along with the model results.

Construction activity up to year 2040 is estimated to generate 16,059.01 MT CO_2e of GHG emissions. Since the 2040 Gilroy General Plan planning horizon is 20 years, the construction GHG emissions were amortized over a 20-year period to yield annual emissions of 802.95 MT CO_2e per year.

The primary classes of operational, non-mobile GHG emissions sources are: 1) area – GHG emissions generated with a project site from combustion of natural gas for heating or other processes, 2) energy – primarily GHG emissions resulting from the off-site generation of electricity consumed by a project, 3) water supply – GHGs from off-site energy generation needed for pumping, treating and distributing water and wastewater, and 4) solid waste – methane, a powerful GHG, is a by-product of the anaerobic decomposition of solid waste that is delivered to a landfill for burial. Table 3.7-6, 2040 Annual Operational, Non-Mobile Source Greenhouse Gas Emissions, summarizes operational, non-mobile emissions volumes at buildout. Detailed CalEEMod results are included in Appendix E.

Table 3.7-6 2040 Annual Operational, Non-Mobile Source Greenhouse Gas Emissions

Condition	GHG Source	MT CO_2e/Year[1]
2040 General Plan Buildout	Area	885.19
	Energy	57,023.80
	Waste	10,601.40
	Water	8,716.62
	Total	77,227.01

Source: EMC Planning Group 2020.
Notes: 1. Numbers may vary due to rounding.

Total Annual 2040 Buildout GHG Emissions. Table 3.7-7, Total Annual 2040 General Plan Buildout Greenhouse Gas Emissions, includes the sum of operational (mobile source and non-mobile source) and construction GHG emissions estimates described above. The total 2040 GHG emissions are projected at 289,245.39 MT CO_2e/year.

Table 3.7-7 Total Annual 2040 General Plan Buildout Greenhouse Gas Emissions

Condition	GHG Source	MT CO_2e/Year[1]
2040 General Plan Buildout	Operational, mobile	211,215.43
	Operational, non-mobile	77,227.01
	Construction	802.95
	Total	289,245.39

Source: EMC Planning Group 2020.
Notes: 1. Numbers may vary due to rounding.

Legislative and Regulatory Emissions Reductions. The GHG emissions volume identified in Table 3.7-7 includes GHG reductions that accrue from several state regulatory and legislative actions that are built into EMFAC2017 and CalEEMod models. GHG emissions reductions from state legislation and regulations that are not built into these models include: LCFS in EMFAC2017 and the RPS and 2019 BEES in CalEEMod. Additional reductions from these state actions can be subtracted from the estimated total annual buildout GHG volume, as they are currently being implemented. Applicable legislation and regulations, the GHG sectors to which they are applicable, and the percentage reduction in GHG emissions that can be taken from the relevant sector are identified in Table 3.7-8, Legislative and Regulatory Greenhouse Gas Emissions Reductions.

Table 3.7-9, Annual Greenhouse Gas Emissions Reductions from Legislative and Regulatory Actions, shows reductions that accrue when the legislative and regulatory reductions presented in Table 3.7-8, are applied to the annual operational emissions shown in Table 3.7-7. The legislative/regulatory emissions reductions are conservative. They do not reflect emissions reductions from other legislation and regulations that will also result in

emissions reductions that will result in accelerated emissions reductions after 2030. For example, future updates to the BEES over time will require all new non-residential construction to achieve zero-net GHG emissions by 2030. Refer to the final 2017 Scoping Plan for other legislation and regulations.

Table 3.7-8 Legislative and Regulatory Greenhouse Gas Emissions Reductions

Legislation/Regulation	Emissions Sector	Percent Reduction
	Mobile	18 percent by 2030[1]
Renewable Portfolio Standards	Energy	60 percent by 2030[2]
2019 Building Energy Efficiency Standards	Energy	Single-family homes: 100 percent in 2020[3] Multi-family and Non-residential uses: 30 percent in 2020[3]

Source: EMC Planning Group 2020.

Notes: 1. The 2017 Scoping Plan requires carbon intensity of transportation fuels to be reduced by at least 18 percent by 2030.

2. SB 100 increased the state's target for procuring energy from renewable sources to 60 percent by 2030.

3. 2019 BEES will result in increased building energy efficiencies over the 2016 BEES that will result in zero-net energy in new single-family homes and reduce energy demand by approximately 30 percent for new multi-family homes and non-residential uses.

Table 3.7-9 Annual Greenhouse Gas Emissions Reductions from Legislative and Regulatory Actions

Legislation/Regulation	Emissions Sector	Percent Reduction	Operational Emissions[1]	Reduction Volume[1]
LCFS	Mobile	18	211,215.43[2]	38,018.78
RPS	Energy	60	57,023.80[3]	34,214.28
2019 BEES: single-family homes	Energy	100	3,996.53[4]	3,996.53
2019 BEES: multi-family homes and non-residential uses	Energy	30	27,592.32[5]	8,277.70
Total				84,507.29

Source: EMC Planning Group 2020.

Notes:

1 Expressed in MT CO_2e per year.

2 EMFAC2017 run result.

3 CalEEMod results (see Table 2.2 of the CalEEMod 2040 results spreadsheet included as Appendix E).

4 CalEEMod single-family home projection assuming 2016 BEES (see Table 5.3 of the CalEEMod 2040 results spreadsheet included as Appendix E).

5 CalEEMod multi-family homes and non-residential use projection assuming 2016 BEES (see Table 5.3 of the CalEEMod 2040 results spreadsheet included as Appendix E).

Life cycle GHG emissions are emissions associated with all the stages of a product's use from cradle to grave (i.e., from raw material extraction through materials processing, manufacture, distribution, use, repair and maintenance, and disposal or recycling), including those generated during the manufacture of products to be used in construction of future developments. Upstream GHG emission sources for land development related projects can include, but are not limited to: extraction of natural resources uses to

manufacture building materials, manufacturing process for building materials such as cement and steel, transportation of building materials, etc. Upstream emissions volumes are difficult to evaluate with precision, especially at the plan level of analysis being conducted in this EIR, so are not addressed.

2015 Administrative Draft Climate Action Plan GHG Emissions Reductions. As discussed in the Policy and Regulatory Setting above, the City of Gilroy prepared an administrative draft climate action plan in 2015 that was never adopted by the city. The plan would not have been a qualified plan for reducing GHG emissions, as the emissions reductions included in the plan were not sufficient to meet the related emissions reductions targets described therein.

In an effort to promote GHG reductions, the city has included all of the administrative draft climate action plan GHG reduction measures into the Gilroy 2040 General Plan either as policies or programs. All GHG emissions related policies and programs included in the Gilroy 2040 General Plan are listed at the end of this section for reference. Policies and programs from the 2015 administrative climate action plan are identified as such. With adoption of the 2040 Gilroy General Plan, it can be assumed that these measures will be implemented and that the associated emissions reductions identified in the administrative draft climate action plan would generally also occur. However, the emissions reduction potential of the measures would need to be verified based on 2040 Gilroy General Plan land use and development conditions, which are different than those assumed in the administrative draft climate action plan, as well as on current modeling tools/methodologies and on the current legislative and regulatory framework in the state. Therefore, the emissions reductions assumed in the administrative draft climate action plan are not being applied to the 2040 buildout emissions presented earlier in Table 3.7-7.

Gilroy 2040 General Plan Buildout GHG Impacts. As discussed above, the 2040 threshold of significance for GHG emissions is 1.93 MT CO_2e per capita. The net GHG emissions in 2040 are equal to total annual 2040 buildout GHG emissions (from Table 3.7-7) less legislative and regulatory emissions reductions (from Table 3.7-9), or 204,738.10 MT CO_2e. According to Table 2.2-2, Population Projections, in Section 2.0, Project Description, Gilroy's population would increase by 19,756 at buildout. The 2040 buildout rate of GHG emission is 204,738.10 MT CO_2e/19,756 population, or 10.36 MT CO_2e per capita. Therefore, GHG emissions at buildout exceed the 2040 threshold of significance, resulting in a significant impact.

Gilroy 2040 General Plan

There is no policy or implementation mechanism in the Gilroy 2040 General Plan that specifically requires GHG reduction policies and programs to be monitored to verify that the projected emissions reductions from them are occurring. However, Policy NCR 3.14 requires that the city prepare and adopt a qualified climate action plan. This action would provide the opportunity for the city to restart its prior administrative draft climate action

plan process such that it, along with additional GHG reduction measures that may need to be added to meeting updated reduction targets would serve as a qualified plan for reducing GHG emissions. Amending the 2040 Gilroy General Plan to serve as the qualified GHG reduction plan is also an option. Without an adopted plan for implementing and monitoring emissions reduction measures and outcomes, there is no assurance that the emission reductions needed to reduce GHG emission impacts to less than significant will occur.

The following mitigation measures are proposed to ensure that a qualified GHG reduction plan is prepared in a timely manner.

Mitigation Measures

GHG-1. To further enhance GHG reductions from community activities and provide CEQA streamlining benefits for analysis of GHG impacts, Gilroy 2040 General Plan Policy NCR 3.14 shall be replaced, as follows:

~~NCR 3.14 Maximum Greenhouse Gas Emission Reductions. Pursue funding through new development as a means to minimize taxpayer funding. Implement the maximum feasible number of greenhouse emission reduction measures in order for the General Plan to achieve the status of a CEQA Qualifying Climate Action Plan, and the accompanying CEQA streamlining benefits. (See CEQA Guidelines, § 15183.5 (b)(1)).~~

NCR 3.14 Prepare a Qualified GHG Reduction Plan. Pursue funding through new development for preparation of a qualified GHG reduction plan. The plan may be prepared by amending the Gilroy 2040 General Plan or by preparing a separate GHG reduction plan. In either case, requirements for a qualified GHG reduction plan as identified in CEQA Guidelines, § 15183.5 (b)(1) must met. Accordingly, definition and implementation of GHG reduction measures in addition to those identified in Gilroy 2040 General Plan policies and programs may be required to show progress towards meeting the reduction targets established in the GHG reduction plan.

GHG-2. To implement modified policy NCR 3.14 identified in mitigation measure GHG-1, the Gilroy 2040 General Plan shall include an implementation program entitled "Qualified GHG Reduction Plan." The implementation program shall require that that city prepare and adopt a qualified GHG reduction plan within three years of the date the Gilroy 2040 General Plan is adopted.

Mitigation measures GHG-1 and GHG-2 would ensure that the City of Gilroy is demonstrating progress towards meeting GHG emissions reduction goals that are substantially consistent with applicable state legislation and executive orders. While the mitigation measures would result in reduced GHGs, in the interim period before the GHG reduction plan is adopted, there is no assurance that the city will take actions to reduce significant GHG impacts to less than significant.

Generation of GHG Emissions in 2050 – Reference to Executive Order S-03-05 Emissions Reduction Target of 80 Percent Below 1990 Levels. Evaluation of the effects of the Gilroy 2040 General Plan against the 2050 reduction target of 80 percent below business-as-usual included in Executive Order S-03-05 was considered, but was not conducted in detail. Like Executive Order B-30-15, this goal is not currently a regulation or requirement that mandates its consideration as a threshold of significance per se. Evaluation of impacts for conditions that are 30 years into the future is considered speculative given the substantial changes in climate science, technologies that result in reduced GHG emissions, and climate-sensitive land use planning likely to occur over the mid- to long-term.

As described in *Beyond 2020: The Challenge of Greenhouse Gas Reduction Planning by Local Governments in California* (Association of Environmental Professionals 2015), based on research into pathways to deep GHG emissions reductions needed by 2050, the changes are substantial and severe and would require fundamental changes in California's energy system, many of which are outside the jurisdiction of individual cities and counties. Achieving deep GHG emission reductions within California will require a coordinated effort across all sectors of the economy. In nearly all the deep reduction scenarios, the rate of transition, such as deployment of better vehicles, or renewable electricity, far exceeds the historical rate of change in the state to date. This adds uncertainty for local jurisdictions seeking to understand their role in GHG reductions within a context of shifting technologies, energy/technology prices, and regulations.

In this context, there is significant evidence that it is infeasible for a local jurisdiction to meet the 80 percent below 1990 levels by 2050 in the near-to-medium term absent a real post-2030 state plan of action for doing so. Requiring compliance with the 2050 goal in Executive Order S-03-05 as a de facto significance threshold in CEQA documents is considered impractical and would involve substantial speculation. Once the state has a defined plan for 2040, then CEQA analysis and thresholds should shift from the current 2030 horizon to the 2040 horizon. When a post-2040 plan is in effect, the horizon may shift again.

Conclusion

Buildout of the Gilroy 2040 General Plan would have a significant and unavoidable GHG impact for the interim period until the city adopts and implements a qualified GHG reduction plan. Upon adoption of a qualified GHG reduction plan, GHG emissions would be reduced to a less-than-significant level. Implementation of Mitigation Measures GHG-1 and GHG-2 would ensure that a qualified GHG reduction plan is prepared in a timely manner. Even with the implementation of mitigation measures, the proposed project will incrementally contribute to cumulative global warming effects, which include increases in air, surface, and ocean temperatures that in turn could have effects that include, but are not limited to: reduced snowpack, more frequent and extreme storm events, reduced water supply availability, increased wildfire hazards, increased public health concerns, etc.

IMPACT	Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing GHG Emissions	Interim Significant and Unavoidable

As described above, GHG emissions from new development within Gilroy as guided by the Gilroy 2040 General Plan will exceed the 2030 interim emissions reduction target and the 2040 emissions reduction target. These targets are based on state emissions reduction goals and programs that for the Gilroy 2040 General Plan process, serve as the applicable plan for reducing GHG emissions. Mitigation measures GHG-1 and GHG-2 would reduce the impact from inconsistency with state GHG reduction guidance to less than significant. However, in the interim period before these mitigation measures are fully implemented, the 2040 Gilroy General Plan will conflict with the applicable GHG reduction plan. This impact will be significant and unavoidable until such time as the city adopts and implements a qualified GHG reduction plan which demonstrates how the city will contribute its fair share towards achieving consistency with state GHG reduction guidance. Upon adoption of a qualified GHG reduction plan, the impact would be less than significant.

Gilroy 2040 General Plan Policies and Programs related to GHG Emissions

The Gilroy 2040 General Plan includes goals and policies that would provide GHG emissions reduction benefit. Consumption of electrical energy, either directly or indirectly, and consumption of fossil fuel in vehicles are and will continue to be the dominant sources of GHG emissions in Gilroy. Policies are focused on reducing emissions from these sources. The policies and programs are primarily organized by the GHG source sectors from which GHG reductions would be realized (e.g. energy, mobile – transportation, waste, and water). As stated previously, a number of the policies are taken directly from the city's 2015 administrative draft climate action plan. Each of these is so noted. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs for the full policy language.

GHG Reduction Planning. The overarching structure for reducing GHG emissions within the city is embodied in Goal NCR 3 and Policy NCR 3.14, which calls for preparation of a qualified GHG emissions reduction plan pursuant to CEQA Guidelines section 15183.5 (b)(1)).

> **Goal NCR 3.** Contribute to improvements in regional air quality and reductions in greenhouse gas emissions.
>
> - NCR 3.14 Maximum Greenhouse Gas Emission Reductions

There are no implementation programs that identify the timing for or articulate the reduction targets to be considered in preparing the reduction plan. Please refer to the mitigation measures described below, which include a program that defines the timing for completing the GHG reduction plan.

Energy Efficiency and Conservation. The following Gilroy 2040 General Plan goals and policies address energy efficiency and conservation which will reduce GHG emissions.

Goal LU 8: Support growth and development that preserves and strengthens the city's historic, small-town character, provides and maintains safe, livable, and affordable neighborhoods, and creates beautiful places.

- LU 8.12 Outdoor Lighting Energy Efficiency (incorporated from 2015 administrative draft climate action plan)

Policy LU 8.12 encourages select outdoor lighting fixtures to provide maximum energy efficiency as well as effective lighting.

Goal M 5: Provide a safe and efficient network of streets for cars and trucks, as well as provide vehicle parking to meet the city's needs.

- M 5.16 Parking Lot Landscaping

Policy M 6.16 directs the city to establish standards for landscaping and trees in new parking lots and encourages retrofit and enhancements of existing lots.

Goal PFS 2: Operate public facilities and services in a sustainable manner that uses public revenues and resources efficiently.

- PFS 2.4 Alternative Energy Sources
- PFS 2.5 Energy Efficient Buildings and Infrastructure
- PFS 2.6 Leadership in Energy and Environmental Design (LEED)

Policies PFS 2.4, 2.5, and 2.6 call improvements energy sustainability in public facilities through use of alternative energy sources, energy efficient buildings and infrastructure, and use of LEED measures.

Goal PFS 8: Provide for the current and future energy and telecommunications needs of Gilroy.

- PFS 8.4 Energy Conservation
- PFS 8.10 Outdoor Lighting and Energy Efficiency (incorporated from 2015 administrative draft climate action plan)

Policy PFS 8.4 calls for reducing energy consumption through green building technologies, alternative energy sources, and public information regarding energy conservation techniques. Policy PFS 8.10 addresses selecting outdoor lamps and light fixtures that maximize energy efficiency, provide effective lighting, and are compatible with the neighborhood context.

Goal NCR 3: Contribute to improvements in regional air quality and reductions in greenhouse gas emissions.

- NCR 3.1 Energy Use Data and Analysis
- NCR 3.2 Retrofit Financing (incorporated from 2015 administrative draft climate action plan)
- NCR 3.3 Shade Tree Program (incorporated from 2015 administrative draft climate action plan)
- NCR 3.4 Solar Development (incorporated from 2015 administrative draft climate action plan)
- NCR 3.5 Community Choice Aggregation (incorporated from 2015 administrative draft climate action plan)
- NCR 3.12 Existing Municipal Building Energy Retrofit (incorporated from 2015 administrative draft climate action plan)

Policy NCR 3.1 calls for use of energy data and analysis to improve energy efficiency in a range of applications including multiple-family housing, multi-tenant commercial buildings, and residential and commercial buildings as identified in NCR implementation programs 10 and 32, while implementation program 34 and 35 facilitate use of energy service companies. Policy NCR 3.3 and its implementation program 15 focus on expanding the use of shade trees in residential developments to improve shading (and reduce air conditioning energy use). Policy NCR 3.5 supports potential participation of the city in a program to purchase renewable energy through a community choice aggregation program. Use of renewable energy to replace fossil-fuel based energy generation is promoted through policy NCR 3.4, Solar Development, which encourage voluntary community-wide solar photovoltaic development through regulatory barrier reduction and public outreach campaigns. Implementation programs NCR 16, 17, 18, and 19 identify actions to operationalize policy NCR 3.4, while implementation programs 36 and 40 promote use of solar water heaters and enhanced generation of renewable energy at municipal facilities, respectively. Policy NCR 3.12 and implementation program 38 call for enhancing the energy efficiency of existing municipal facilities through energy efficiency retrofitting, while policy NCR 3.2 does the same for financing retrofits for privately owned buildings.

Mobile Source/Transportation. Numerous mobility related policies and programs from the Gilroy 2040 General Plan would reduce mobile source GHG emissions by reducing vehicle trips and/or the length of vehicle trips, with the end result of reducing VMT. These policies and programs promote land use patterns (e.g. infill, mixed-uses, and compact development), enhance availability and safety of non-motorized transportation facilities including bicycle and pedestrian facilities, promote and expand alternative transportation options including bus and rail transit, and reduce employee demand for vehicle use, among other actions. Note: The policy discussion is provided at the end of the list of applicable policies.

Goal LU 1: Protect and enhance Gilroy's quality of life and unique identity while continuing to grow and change

- LU 1.1 Pattern of Development
- LU 1.4 Mix of Uses

Goal LU 3: Provide a variety of housing types that offer choices for Gilroy residents and create complete, livable neighborhoods

- LU 3.2 Connectivity
- LU 3.5 Neighborhood Infill

Goal LU 4: Encourage the growth and development of retail, office, service, and entertainment uses in Gilroy to provide jobs, support city services, and make Gilroy an attractive place to live

- LU 4.7 Existing Strip Commercial Uses Connectivity
- LU 4.9 Pedestrian Access

Goal LU 7: Encourage mixed-use development projects that create vibrant, walkable districts (incorporated from 2015 administrative draft climate action plan)

- LU 7.1 Mixed-Use Districts
- LU 7.4 Work/Live
- LU 7.7 Priority Development Areas (PDAs)
- LU 7.8 Transit-Oriented Development

Goal M 1: Provide for a safe and efficient transportation system that serves all users

- M 1.7 Reduce Vehicle Miles Traveled
- M 1.9 Interconnected Residential Streets
- M 1.10 Private Streets
- M 1.12 Transportation Demand Management (incorporated from 2015 administrative draft climate action plan)
- M 1.13 Transportation Funding

Goal M 2: Provide complete streets that balance the diverse needs of users of the public right-of-way

- M 2.2 Complete Street Standards
- M 2.5 Complete Street Conversions

- M 2.6 Private Complete Streets
- M 2.7 Safe Street Crossings

Goal M 3: Support bicycling and walking by providing a safe and extensive bicycle and pedestrian network (incorporated from 2015 administrative draft climate action plan)

- M 3.1 Roadway Design
- M 3.2 New Development
- M 3.3 Sidewalk Network Gaps
- M 3.4 Bicycle and Pedestrian Path Network
- M 3.5 Bicycle and Pedestrian Transportation Plan
- M 3.6 Bicycle and Pedestrian Priority
- M 3.9 Bicycle Parking
- M 3.11 Bicycle Parking at City Facilities
- M 3.12 Inter-Regional Bicycle Connectivity
- M 3.13 Road Maintenance and Bicycles
- M 3.14 Safe Routes to School
- M 3.17 Traffic Impact Fee for Bicycle/Pedestrian Improvements

Goal M 4: Plan for efficient and convenient local and regional transit systems that respond to the changing needs of Gilroy.

- M 4.1 Access to Transit
- M 4.2 Transit and Development
- M 4.3 Regional Transit Services
- M 4.4 Shuttle Service
- M 4.5 Private Transportation
- M 4.6 Santa Clara Valley Transportation Authority (VTA)
- M 4.7 Updated Transit Plan
- M 4.8 Consider Transit in Planning and Development Proposals

Goal M 5: Provide a safe and efficient network of streets for cars and trucks, as well as provide vehicle parking to meet the city's needs

- M 5.3 Promote Non-Auto Modes of Transportation
- M 5.4 Transportation Performance Metrics

Goal M 7: Maintain and increase cooperation between Gilroy and neighboring jurisdictions, regional organizations, and relevant State agencies

- M 7.2 County Coordination
- M 7.4 Intercity Rail
- M 7.5 Intercity Transit
- M 7.6 Expanded Caltrain Service
- M 7.7 High-Speed Rail Coordination

Goal EP 8: Proactively manage land uses to provide and enhance economic development and job growth

- EP 8.2 Jobs to Employed Resident Ratio

Goal NCR 3: Contribute to improvements in regional air quality and reductions in greenhouse gas emissions

- NCR 3.6 Bicycle Infrastructure Expansion (incorporated from 2015 administrative draft climate action plan)
- NCR 3.7 Transportation Demand Management (incorporated from 2015 administrative draft climate action plan)
- NCR 3.8 Community-Wide Alternative Fuel Vehicles (incorporated from 2015 administrative draft climate action plan)

The overall goal of reducing VMT is expressed in Policy M 1.7, Reduction of VMT. Land use planning with an emphasis on infill and expansion of mixed-use development is a policy focus. Policies LU 1.1, LU 1.4, LU 3.5, LU 7.1, and LU 7.4 provide this guidance. Policies LU 7.7 and LU 7.8 emphasize land use planning to catalyze transit-oriented development and concentration of uses to encourage transit use. Policy EP 8.2 directs the city to achieve a better balance in the ratio of jobs to employed residents in the city. This would reduce commutes out of the city for employment opportunities.

Numerous policies encourage expanded use of non-motorized alternative transportation such as bicycling and walking though land use planning and improved, expanded, and safe bicycle and pedestrian facilities. Policies LU 4.7, LU 4.9 and M 1.7 encourage pedestrian connectivity within and between non-residential uses and within and between residential uses on both private and public streets. Mobility policies M 2.2 through M 2.7 guide the city's goal to provide complete streets that balance the needs of users including pedestrians and bicyclists. The city's overall goal of supporting bicycling and walking is reflected in policies M 3.1 through 3.6, including through preparing a bicycle and pedestrian transportation plan that would be updated every five years as called for in mobility implementation program 3. Policies M 3.9, M 3.11, M 3.14 and M 3.17 provide for bicycle

parking facilities, inter-regional bicycle connectivity, bicycle facility maintenance, safe routes to school, and funding for bicycle and pedestrian improvements. Mobility policies M 7.2 - M 7.7 call for regional cooperation to expand intercity rail and transit, Caltrain service, and to coordinate for high-speed rail connections. Mobility implementation program 2 requires new development to pay transportation impact fees to provide for roadway and trail improvements.

Mobility policy M 1.12 is specific to transportation demand management. It calls for existing and proposed development to incorporate measures such as car-sharing, transit passes, and other actions to reduce VMT by residents and employees. Mobility implementation program 37 identifies measures by which the city will conduct outreach and provide incentives for transportation demand management. Policy M 1.13 requires new development to fund transportation improvements including roadways, trails, and transit stops.

In addition to promoting reduced energy consumption and GHGs, the city intends to transition its municipal vehicle fleet to fuel efficient and alternative fuel models as described in policy NCR 3.8 regarding community-wide alternative fuel vehicles. Natural and Cultural Resources implementation measure 25 describes how the city will transition to such vehicles, while implementation measure 41 identifies how the city will work to expand alternative fuel vehicle infrastructure within the city.

Solid Waste. While GHGs from waste disposal constitute a small percentage of the city's existing and projected GHG emissions inventory, a number of Gilroy 2040 General Plan goals, policies, and programs would result in reducing landfill disposal of solid waste.

Goal PFS 6: Reduce the amount of waste entering regional landfills through an effective waste management program.

- PFS 6.3 Solid Waste Diversion
- PFS 6.4 Recycling
- PFS 6.5 Source Reduction
- PFS 6.6 Municipal Waste Reduction
- PFS 6.9 Construction and Demolition Waste Recycling

PFS policies 6.3 through 6.6 and 6.9 identify mechanisms to reduce waste disposal including diversion, recycling, source reduction, and construction waste recycling.

Goal NCR 3: Contribute to improvements in regional air quality and reductions in greenhouse gas emissions.

- NCR 3.13 Zero Waste (incorporated from 2015 administrative draft climate action plan)

Policy NCR 3.13 specifically addresses reducing the waste stream from municipal sources.

Water. Like solid waste, GHGs from water use constitute a small percentage of the city's existing and projected GHG emissions inventory. The following Gilroy 2040 General Plan goals, policies, and programs would result in reducing water demand.

Goal PFS 3: Maintain the city's water system to meet the needs of existing and future development while improving water system efficiency.

- PFS 3.8 Water Conservation Standards
- PFS 3.9 Water Conservation Programs

Goal PFS 4: Maintain the city's wastewater collection, treatment, and disposal system to meet the needs of existing and future development anticipated in the Gilroy 2040 General Plan.

- PFS 4.8 Water Conservation

Policy PFS 4.8 would serve to reduce water demand through a variety of means. By reducing water demand, consumption of energy needed to pump and treat water is reduced, thereby reducing generation of GHGs.

Goal PFS 5: Maintain an effective storm drainage system to accommodate runoff, prevent property damage due to flooding, and improve environmental quality.

- PFS 5.5 Rainwater Harvesting
- NCR 3.10 Water Use Reduction

The water related policies noted above would serve to reduce water demand through a variety of means. By reducing water demand, consumption of energy needed to pump and treat water is reduced, thereby reducing generation of GHGs.

Goal NCR 4: Maintain overall water quality by protecting surface and groundwater sources, restoring creeks and rivers to their natural state, and conserving water resources.

- NCR 4.5 Water Conservation and Reclamation
- NCR 4.9 Native and Drought-Tolerant Landscaping

The water related policies noted above would serve to reduce water demand through a variety of means. By reducing water demand, consumption of energy needed to pump and treat water is reduced, thereby reducing generation of GHGs.

Carbon Sequestration. Carbon sequestration is the capture and storage of CO_2 and other greenhouse gases that would otherwise be emitted to the atmosphere. One form of

sequestration is capture of CO_2 through plant, especially tree, respiration. Gilroy 2040 General Plan Policy NCR 3.11 would assist with carbon sequestration as a means to mitigate GHG emissions.

Goal NCR 3: Contribute to improvements in regional air quality and reductions in greenhouse gas emissions.

- NCR 3.11 Urban Forest (incorporated from 2015 administrative draft climate action plan)

Policy NCR 3.11 supports development and maintenance of a healthy, vibrant urban forest through outreach, incentives, and strategic leadership.

Conclusion

GHG reductions would be realized with implementation of a range of energy efficiency and energy conservation policies and programs. However, buildout of the Gilroy 2040 General Plan would conflict with the applicable GHG reduction plan/policy/regulation, resulting in a significant and unavoidable impact for the interim period until the city adopts and implements a qualified GHG reduction plan. Upon adoption of a qualified GHG reduction plan, the potential, significant impacts due to conflicts with the applicable GHG reduction plan/policy/regulation would be less than significant. Implementation of Mitigation Measures GHG-1 and GHG-2 would ensure that a qualified GHG reduction plan is prepared in a timely manner.

3.8 HAZARDOUS MATERIALS AND WILDLAND FIRE HAZARDS

Unless otherwise noted, the information contained within this section is largely based upon information included in the *Gilroy 2040 General Plan Background Report* (Mintier Harnish 2014) and *City of Gilroy 2002/2020 General Plan EIR*. This section addresses the potential presence of hazardous materials and wildland fire hazards within the Gilroy 2040 General Plan Planning Area/Sphere of Influence and Urban Growth Boundary. Seismic hazards are discussed in Section 3.6., Geologic Hazards. Flood Risk Hazards are discussed in Section 3.9, Storm Water and Flooding.

No concerns regarding hazards and hazardous materials were raised in the comments on the NOP.

Environmental Setting

For the purposes of this analysis, a material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. The health effects of hazardous materials exposure are influenced by the dose to which a person is exposed, the frequency of exposure, the exposure pathway, and individual susceptibility.

Hazardous materials can pose a substantial present or future hazard to human health or the environment if improperly handled, stored, disposed, remediated, or otherwise managed. If improperly handled, hazardous materials can result in public health hazards through direct human contact with contaminated soils or groundwater, or through airborne releases in vapors, fumes, or dust. There is also the potential for accidental or unauthorized releases of hazardous materials that would pose a public health concern (e.g., drinking water contamination).

Hazardous materials are materials defined in the California Title 22 and include chemicals, radioactive materials, biohazardous materials, and medical waste. Hazardous materials are governed by regulations that require proper storage and handling, business/environmental management plans, spill contingency plans, employee and public noticing, and other emergency preventative and response measures to minimize the risk of accidental releases and associated environmental impacts. Regulations for the disposal of such wastes are stringent today but were more lax in the past. A number of programs have been created at the federal, state, county, and local level to clean up contaminated sites and facilitate their safe reuse. These programs are more fully described in the Regulatory Setting of this section.

Accidents or spills during transport of hazardous materials or wastes can also expose the general public and the environment to these substances. If contamination at a site remains undetected, workers and the public may be at risk of exposure if precautions are not taken during site development. Hazardous material releases can result in both short- and long-term effects on the local population and environment. Latent chemicals and other materials found in soils of agricultural land or industrial sites as a result of past activity are also a concern. Such sites are evaluated for contamination when considered for site-specific development and identified as contaminated through the phase one and/or phase two environmental site assessment review. Many but not all contaminated sites, once discovered, can be mitigated by cleanup operations, however, review and cleanup responsibilities fall to state agencies.

Contaminated Sites

Existing land uses within the City of Gilroy consist of a wide variety of industrial, commercial, and residential land uses. These uses generate, use, store, transport, and dispose of a wide range of hazardous materials. The California Department of Toxic Substances Control EnviroStor database and the Regional Water Quality Control Board GeoTracker database each maintain a current list and case data of known contaminated sites in the City of Gilroy. The background report identified 148 sites listed on state and local hazardous materials lists within the Gilroy 2020 General Plan Planning Area Boundary, which is similar to the Gilroy 2040 General Plan Urban Growth Boundary. Of these sites, 51 are listed as permitted underground storage tanks (UST) and 77 are listed as leaking underground fuel storage tanks (LUST), 86 sites are closed/ completed, require no action, or require no further action. The remaining 11 are undergoing hazardous materials remediation, may require remediation pending further testing, or have actions pending. The sites are monitored by either the Department of Toxic Substances Control or the Regional

Water Quality Control Board. Additional details of the listed sites in the Department of Toxic Substances Control EnviroStor or Regional Water Quality Control Board GeoTracker are described at the end of the background report Table 8-4.

Other Sources of Contamination

Residences are another source of hazardous materials, including electronic and universal waste. Many common household items such as batteries, fluorescent light bulbs, televisions, and computers contain hazardous materials and cannot be collected with recyclables or trash. Improper disposal of household hazardous waste can create environmental problems such as ground and surface water contamination and pose a threat to human health. In addition, improper disposal of household hazardous waste into the sewage system can adversely affect the operations and biological systems at the sewage treatment plant. Household hazardous waste disposal is managed by the Santa Clara County Department of Environmental Health household hazardous waste disposal program. All residents in the city can set up an appointment with the county to dispose of household hazardous waste free of charge. Restrictions to the county household hazardous waste disposal program includes limiting household hazardous waste containers to no more than five gallons in size, and not accepting radioactive waste, ammunitions, or explosives.

Other Hazardous Materials Commonly Found in Buildings

Structural building components, particularly in older buildings, sometimes contain hazardous materials such as asbestos, polychlorinated biphenyls (PCBs), lead, and mercury.

Asbestos. Asbestos is a general name for a group of naturally occurring minerals composed of small fibers. Structures built or remodeled between 1930 and 1981 could contain asbestos-containing materials (ACM), including, for example, floor coverings, drywall joint compounds, acoustic ceiling tiles, piping insulation, electrical insulation, and fireproofing materials. The presence of ACM in a building does not mean that the building is a health hazard, as long as ACM remains in good condition and is not disturbed or damaged, exposure is unlikely. Exposure is most likely to result during renovation or demolition. Many buildings in Gilroy were constructed prior to 1981 and, therefore, may contain ACM. Asbestos is generally not harmful when ACM are left undisturbed, but when disturbed, microscopic fibers can be dislodged and remain in the air for long periods. If asbestos fibers are inhaled, they can become lodged in body tissues and pose a serious health threat, especially lung disease.

As previously reported in Section 3.3, Air Quality, air districts restrict asbestos emissions from building demolition and renovation activities, and CalOSHA specifies safe work practices to minimize exposures to asbestos fibers. These regulations prohibit emissions of asbestos from asbestos-related manufacturing, demolition, and construction activities, require medical examinations and monitoring of employees engaged in activities that could disturb asbestos, specify precautions and safe work practices that must be followed to minimize the potential for release of ACM, and require notice to federal and local

government agencies prior to beginning building demolition or renovation activity that could disturb ACM. The impacts related to exposure of airborne ACM are discussed in Section 3.3, Air Quality.

Lead. Lead is a highly toxic metal that was used in products found in and around residences. Lead exposure from vintage paint is possible when the paint peels or is removed, and the lead can contaminate dust and soil. Construction workers can be exposed to airborne lead during demolition, renovation, or maintenance work. Although lead-based paints were banned from production in the 1970s, many buildings in Gilroy were constructed prior to that and may still contain lead. In addition to residences, areas along older, major roadways may contain aerially deposited lead, which could have been deposited from vehicle exhaust until the 1990s, when lead-based gasoline was banned from production.

CalOSHA standards establish a maximum safe exposure level for types of construction work where lead exposure may occur, including demolition of structures where materials containing lead are present, removal or encapsulation of materials containing lead, and new construction, alteration, repair, or renovation of structures with materials containing lead. Inspection, testing, and removal of lead containing building materials must be performed by state-certified contractors who comply with applicable health and safety and hazardous materials regulations.

Mercury. Spent fluorescent light tubes and bulbs, thermostats, and other electrical equipment may contain heavy metals such as mercury that, if disposed of in landfills, can leach into soil or groundwater. Lighting tubes typically contain concentrations of mercury that may exceed regulatory thresholds for hazardous waste and, as such, must be managed in accordance with hazardous waste regulations. Elemental mercury waste is considered hazardous. Mercury can also be present in traps in the plumbing of older buildings in which mercury-containing equipment has been used. Items containing mercury must be disposed of according to applicable hazardous waste regulations.

PCBs. The manufacture and import of PCBs have been banned in the U.S. since 1978. If manufactured before then, sources of PCBs generally include fluorescent light ballasts, electric transformers, and televisions, all of which are presumed to be present in Gilroy. Such items are regulated as hazardous waste and must be transported and disposed of accordingly.

Naturally-Occurring Asbestos

As noted previously in Section 3.4, Biological Resources, serpentine rocks and soils are located within the Glen Loma Ranch Specific Plan area, south of Christmas Hill Park and Mesa Road, and between Farman Canyon and Reservoir Canyon. In addition, serpentine soils are located between Reservoir Canyon and Babbs Canyon, small patches are also mapped in an area south of Day Road and north of Hecker Pass Highway, in the northwestern portion of the 2040 Gilroy General Plan Planning Area/Sphere of Influence

(slightly within the Urban Growth Boundary). Naturally-occurring asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or weathered. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. Weathered asbestos becomes a component of the soil and can migrate downstream (California Department of Conservation, Division of Mines and Geology 2000). Exposure to naturally-occurring asbestos deposited at lower elevations would typically result from disturbance of asbestos-containing soils. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads or during grading.

Urban and Wildland Fire Zones

There are both urban and wildland fire hazards in within the Urban Growth Boundary. Urban fires primarily involve the uncontrolled burning of residential, commercial, or industrial structures due to human activities. Structural fires typically result from manmade causes and threaten many residential and commercial structures, especially those built before existing building and fire codes were established. These substandard structures represent the highest potential for injury, death, or loss of property. Wildland fires affect grasslands, forestlands, and brushlands, as well as any structures on these lands. Such fires can result from either human-made or natural causes. The region's topography, type, and amount of fuel, climate, and the availability of water for firefighting are the primary factors influencing the degree of fire risk.

Climate. As noted in the background report, Gilroy's temperature is on average 62 degrees. While summer temperatures have been known to exceed 100 degrees, the average July high temperature is about 90 degrees. Winter temperatures drop to an average of about 50 degrees and the first freeze generally arrives in November. One of the ways in which climate has an effect upon a fire problem is when drought, high winds or high temperatures result in unusual burning conditions.

Vegetation and Fuels. The background report Figure 3-6, Fuel Types, illustrates the existing fuel types in the Gilroy 2040 General Plan Planning Area/Sphere of Influence. This information is valuable when assessing the existence of an urban-wildland interface area and the location of high fire hazard severity zones. Figure 3.8-1, Fire Hazard Severity Zones, illustrates the locations of the different Fire Hazard Severity Zones in the vicinity of Gilroy, as well as the locations of existing and future fire stations.

Fire Hazard Severity Zones in Gilroy are confined to the hilly areas in the south and western portions of the area within the Urban Growth Boundary and the foothills outside of and west of the Gilroy 2040 General Plan Planning Area/Sphere of Influence, with only a very small overlap with city boundaries. Fire threats from areas outside the Gilroy 2040 General Plan Planning Area/Sphere of Influence would likely expose the community to heavy smoke conditions that may require emergency measures (e.g., shelter in place, etc.).

Wildfire and Wildland/Urban Interface. Wildland/urban interfaces are generally defined as areas where homes meet or intermingle with undeveloped wildland vegetation, often in

steep or hilly terrain. As shown in Figure 3.8-1, Fire Hazard Severity Zones, high to very high wildfire threats affect properties located in the western and southwestern foothills of the Urban Growth Boundary. The majority of the area within the Urban Growth Boundary that has been developed with urban uses is generally not susceptible to risks from wildland fires. However, the southern and western portions of the Urban Growth Boundary contain hilly terrain that is becoming increasingly populated with residences with undeveloped steeper terrain beyond many of those neighborhoods. The western hillside areas pose a high fire hazard for the residents who live there. These areas are subject to special development controls to help reduce the potential loss of life and property in the event of a local wildfire.

The areas located within very high or high fire hazard severity zone within the Urban Growth Boundary are zoned Residential Hillside (RH). With adoption of the 2019 California Fire Code, the city has determined that all new construction in the RH district must meet the high standards of Chapter 7A of the Building Code.

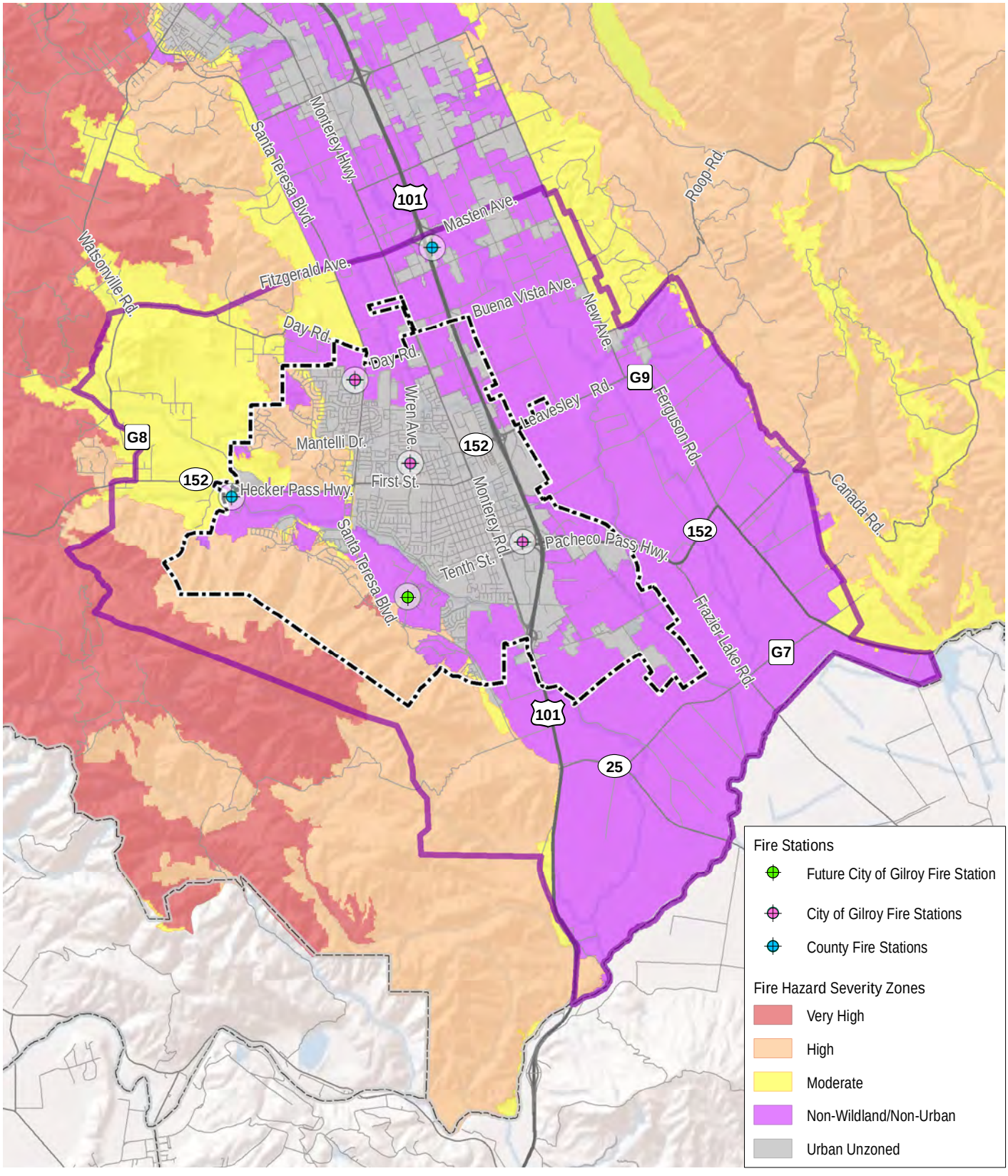
Critical facilities and infrastructure in the Urban Growth Boundary including roadways, bridges/ interchanges, health care facilities, schools, and government-owned facilities may be located in areas with low- to moderate-risk associated with wildfire threat or in areas with high to very high wildfire threats. According to the 2017 *Santa Clara County Hazard Mitigation Plan* (Volume II, page 4-15, 2017), no critical facilities within the Urban Growth Boundary are located within high risk areas.

Regulatory Setting

Hazardous Materials Regulation

Hazardous Material Release Reporting, Inventory, and Response Plans are found in Title 19 of the California Code of Regulations. A hazardous waste is defined in Title 22 of the California Code of Regulations as: any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, and any material that meets the Title 22 definition according to the handler or the administering agency. Chemical and physical properties of a substance are directly related to the degree of hazard it poses, including properties of toxicity, ignitability, corrosiveness, and reactivity.

Title 40 of the Code of Federal Regulations establishes rules for the handling and disposal of hazardous waste materials. Generators of less than 100 kilograms of hazardous waste per month are conditionally exempt from regulation, but are still responsible for proper handling and disposal of hazardous wastes, i.e. no more than 1,000 kilograms of hazardous waste may be stored at any time, and disposal of hazardous materials through appropriate channels is required. Environmental Protection Agency regulations apply to generators of greater than 100 kilograms but less than 1,000 kilograms of hazardous waste in a month,



Source: CAL FIRE 2007, City of Gilroy 2018, ESRI 2015

Figure 3.8-1

Fire Hazard Severity Zones

Gilroy 2040 General Plan EIR

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and additional regulations apply to generators of greater than 1,000 kilograms of hazardous waste per month. Generators of greater than 100 kilograms of hazardous materials must obtain a registration number from the Environmental Protection Agency. The Department of Toxic Substances Control and Regional Water Quality Control Board oversee most soils and groundwater contamination clean-ups in California. County environmental health departments and other state or local agencies can also take or share responsibility for clean-up oversight, depending on the particular circumstances. California regulates hazardous materials generators through provisions of the California Health and Safety Code and Title 22 of the California Code of Regulations. The Department of Toxic Substances Control issues permits to each location that generates more than 100 kilograms of hazardous materials in a month.

Use, storage, and disposal of pesticides are regulated by the federal Environmental Protection Agency and California Department of Pesticide Regulation. Local oversight is provided by the County of Santa Clara Division of Environmental Health and the County of Santa Clara Agricultural Commissioner's Office. Government pesticide regulations include restrictions on use near water and other sensitive habitats. Specific restrictions for individual chemicals are included on the label. A Pesticide Applicator's License is required for commercial application of pesticides (California Department of Pesticide Regulation 2015).

State regulations are in effect to protect workers involved with testing for and removal of lead-based paint (California Labor Code 6716 to 6717) and ACM (California Code of Regulations Title 8 Section 1529) prior to or during building renovation or demolition. Asbestos handling and disposal are regulated by federal and state law, and the air district's Regulation 11 Rule 2.

Health and Safety Laws and Regulations

A summary of Health and Safety Laws and Regulations for managing hazardous materials and wastes is discussed below.

Management of Hazardous Chemicals. Both state and federal laws require detailed planning to ensure that hazardous chemicals are properly handled, used, stored, and disposed of, and in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment. These laws require hazardous chemical users to prepare written plans, such as Hazard Communication Plans, Hazardous Materials Business Plans, and Chemical Hygiene Plans.

Laws and regulations require hazardous chemical users to store these materials appropriately and to train employees to manage them safely. A number of agencies participate in enforcing hazardous chemical management requirements. For Gilroy, the Fire Marshal supervises the city's fire prevention, hazardous materials, pretreatment (industrial waste discharge) laws and codes in the field of hazardous materials and the environment.

The Santa Clara County Hazardous Materials Compliance Division works closely with the city to develop and implement all required Fire Marshall's office Certified Unified Program Agency (CUPA) elements.

Hazardous Materials Transportation. The U.S. Department of Transportation regulates hazardous materials transportation between states under the Hazardous Materials Transportation Act. Within California, the state agencies with primary responsibility for enforcing federal and state regulations and for responding to transportation emergencies are the California Highway Patrol and the California Department of Transportation. Together, federal and state agencies determine driver training requirements, load labeling procedures, and container specifications. Although special requirements apply to transporting hazardous materials, requirements for transporting hazardous waste are more stringent, and hazardous waste haulers must be licensed to transport hazardous waste on public roads.

Hazardous Chemical Waste Handling. The Department of Toxic Substances Control regulates the generation, transportation, treatment, storage, and disposal of hazardous chemical waste. These laws impose "cradle-to-grave" regulatory systems that require generators of hazardous chemical waste to handle it in a manner that protects human health and the environment to the extent possible. In Gilroy, the Fire Marshall's office CUPA enforces on-site waste management requirements applicable to hazardous chemical waste generators, such as requirements for secondary containment around stored wastes to prevent environmental contamination in the event of a spill. The Department of Toxic Substances Control permits and oversees hazardous chemical waste treatment, long-term storage and disposal facilities.

Occupational Health Safety. Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the work place. CalOSHA and the Federal Occupational Safety and Health Administration (FedOSHA) are the agencies responsible for assuring worker safety. In California, CalOSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices. Among other requirements, CalOSHA obligates many businesses to prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. CalOSHA also sets standards for fume hood operations (fume hoods are cabinets connected to overhead exhaust fans that draw air from inside the cabinet and expel it from the building through rooftop stacks).

Radioactive Materials. The Radiologic Health Branch of the California Department of Public Health administers the federal and state radiation safety laws that govern the storage, use, transportation, and disposal of sources of ionizing radiation (radioactive material) and provide for protecting the public from radiation hazards. The Radiologic Health Branch licenses institutions that use radioactive materials, requires them to implement training and safety requirements, and subjects them to routine enforcement inspections.

Biological Safety. The U.S. Department of Health and Human Services Public Health Service, Center for Disease Control and Prevention, and the National Institutes of Health provide national guidelines in the advisory document *Biosafety in Microbiological and Biomedical Laboratories* to promote the safety and health of workers in biological and medical laboratories (http://www.cdc.gov/biosafety/publications/index.htm). *Biosafety in Microbiological and Biomedical Laboratories* is the cornerstone of biosafety practice and policy in the United States for everyone who handles biohazardous materials including infectious agents, infected animals, and recombinant DNA. In some circumstances, compliance with following this national advisory document has become mandatory through legislation and regulation (DHHS 2009).

Animal Care. Under the 1985 Animal Welfare Act, the U.S. Department of Agriculture establishes standards for animal care and worker safety for activities involving certain research animal species. Organizations are required to establish an Institutional Animal Care and Use Committee to review and approve all protocols for work in which laboratory animals are used.

Medical Waste Management. The California Medical Waste Management Act applies to the generation, transportation, treatment, storage, and disposal of medical waste, and imposes a cradle-to-grave tracking system. Facilities that treat medical wastes must obtain a permit and are subject to oversight by the Santa Clara County Department of Health.

Soil and Groundwater Contamination. The Comprehensive Environmental Response, Compensation, and Liability Act and associated Superfund Amendments provide the United States EPA with the authority to identify hazardous sites, to require site remediation, and to recover the costs of site remediation from polluters. California has enacted similar laws intended to supplement the federal program. The California Environmental Protection Agency and the Department of Toxic Substances Control are primarily responsible for implementing California's Superfund Law.

Structural and Building Components. Federal and state laws and regulations address building materials containing asbestos, which is regulated both as a hazardous air pollutant under the Clean Air Act and as a potential worker safety hazard under the authority of CalOSHA. Federal and state laws, implemented by the US Department of Housing and Urban Development, also apply to lead-based paint in residential housing. These laws address abatement and worker protection. Federal and state laws and regulations relating to underground storage tanks include permitting, monitoring, closure, and clean up requirements. Regulations set forth construction and monitoring standards, monitoring standards for existing tanks, release reporting requirements, and closure requirements. The Gilroy Fire Marshall's office implements the CUPA program and is designated to permit and inspect underground storage tanks and to implement related regulations.

Emergency Response. California has developed an Emergency Response Plan to coordinate emergency services provided by federal, state, and local government and private agencies.

Responding to hazardous materials incidents is one part of this plan. The plan is administered by the State Office of Emergency Services, which coordinates the responses of other agencies, including the CalEPA, the California Highway Patrol, the California Department of Fish and Wildlife, the Central Coast Regional Water Quality Control Board, and the local fire department. The fire department provides first response capabilities, if needed, for hazardous materials and emergencies in Gilroy. The California Office of Emergency Services last updated The State of California Emergency Plan in October 2017.

Cortese List

The State of California Hazardous Waste and Substances List (also known as the "Cortese List") is a planning document used by State and local agencies and developers to comply with CEQA requirements for providing information about the location of known contaminated sites. Government Code Section 65962.5 requires the California Environmental Protection Agency to annually update the Cortese List. The Department of Toxic Substances Control is responsible for providing a part of the Cortese List information, while other State and local agencies provide the remaining information.

> **Government Code Section 65962.5. (a)** The Department of Toxic Substances Control shall compile and update as appropriate, but at least annually, and shall submit to the Secretary for Environmental Protection, a list of all of the following:
>
> (1) All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.
>
> (2) All land designated as hazardous waste property or border zone property pursuant to Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code.
>
> (3) All information received by the Department of Toxic Substances Control pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land.
>
> (4) All sites listed pursuant to Section 25356 of the Health and Safety Code.
>
> (5) All sites included in the Abandoned Site Assessment Program.
>
> **Government Code Section 65962.5. (c)** The State Water Resources Control Board shall compile and update as appropriate, but at least annually, and shall submit to the Secretary for Environmental Protection, a list of all of the following:
>
> (1) All underground storage tanks for which an unauthorized release report is filed pursuant to Section 25295 of the Health and Safety Code.

(2) All solid waste disposal facilities from which there is a migration of hazardous waste and for which a California regional water quality control board has notified the Department of Toxic Substances Control pursuant to subdivision (e) of Section 13273 of the Water Code.

(3) All cease and desist orders issued after January 1, 1986, pursuant to Section 13301 of the Water Code, and all cleanup or abatement orders issued after January 1, 1986, pursuant to Section 13304 of the Water Code, that concern the discharge of wastes that are hazardous materials.

State Standards for Hazards near School Sites

New school sites must comply with the school site selection standards in Title 5, Section 14010 of the California Code of Regulations (CCR), Chapter 13 of Division 1, School Facilities Construction, adopted by the California Department of Education pursuant to Subdivision (b) of Section 17251 of the Education Code and SB 50 Regulations, sections 1859.74.1 and 1859.75. Following is a summary of school site selection criteria:

- A school site must be at least 100 feet from a 50-133 kilovolt (kV) power transmission line (CCR section 14010 (c).),
- A school site must be a sufficient distance from a railroad track easement, as ascertained by an analysis of the cargo, speed, grade, curves and/or type of track to determine that the tracks pose no risk of personal injury or property damage (CCR section 14010 (d).). School sites more than 1,500 feet from a railroad are considered beyond the area of concern,
- A school site must not be adjacent to a road or freeway that will pose noise or traffic safety problems that will adversely affect the educational program (CCR section 14010 (e).),
- The project site must not be located near an above-ground water or fuel storage tank that can pose a safety hazard (CCR section 14010 (h).),
- The site must be located at least 500 feet from the edge of the closest traffic lane of a freeway or other busy traffic corridor (SB 352) (Public Resources Code section 21151.8),
- The project site must not have served as a hazardous disposal waste site, unless the district determines that the waste has been removed. The project site must not be identified as a hazardous substance release site by the State Department of Health Services (Education Code section 17213 (a)(1).),

- The project site must not contain any pipelines carrying hazardous waste. Pipelines carrying natural gas to supply the school site or neighborhood are permitted (Education Code section 17213 (a)(3).),
- The project site must not be within one-quarter mile of a facility that "might reasonably be anticipated to emit hazardous air emissions or to handle hazardous or acutely hazardous materials, substances or waste" (Ed. Code section 17213 (b), refer also to CEQA Guidelines section 15186), and
- If the project site is within two miles of an airport runway, the district must notify the State Department of Education, which must notify the State Department of Transportation, and a favorable report must be issued by the State Department of Transportation (Education Code section 17215).

For school sites located on former agricultural land, the Department of Toxic Substances Control provides guidance to supplement the standard preparation of Preliminary Endangerment Assessments (Department of Toxic Substances Control 2008).

Santa Clara County Household Hazardous Waste Disposal Program

The Santa Clara County Department of Environmental Health manages the county household hazardous waste disposal program. All residents in the city can set up an appointment with the county to dispose of household hazardous waste free of charge. Restrictions to the county household hazardous waste disposal program includes limiting household hazardous waste containers to no more than five gallons in size, and not accepting radioactive waste, ammunitions, or explosives.

Unified Hazardous Materials and Hazardous Materials Management Regulatory Program

The Gilroy Fire Department is a Certified Unified Program Agency (CUPA), which means the Gilroy Fire Department has been certified by the state to implement its own Unified Hazardous Materials and Hazardous Materials Management Regulatory Program (CUPA Program). The Gilroy Fire Department administers the city's entire CUPA Program as part of the Fire Services Master Plan. The goal of the hazardous materials program is to reduce the risks to persons and property and the environment due to the production, storage, use, or transportation of hazardous materials. The City of Gilroy CUPA program is implemented by the Fire Marshall and located in the Community Development Department.

Businesses that store hazardous materials in quantities that meet or exceed reporting limits are required to submit an individual Hazardous Materials Business Plan to the city. Each Hazardous Materials Business Plan consists of business and facility information, a chemical inventory, a site map, a detailed facility plan, emergency response procedures, and an emergency response training plan for employees. The Hazardous Materials Business Plan must be recertified for completeness and accuracy each year, or updated and revised as necessary.

Santa Clara County and City of Gilroy Emergency Planning

The *Santa Clara County Operational Area Emergency Operations Plan* outlines administrative response protocols for the County (Santa Clara County Office of the County Executive 2017). In general, during emergencies, major roads, highways, hospitals, and fire stations are important to the initial response. Schools, churches, and community centers are frequently used as assembly points for persons displaced from homes, or for distribution of emergency supplies. The *Evacuation Annex to the County of Santa Clara Emergency Operations Plan* is a guidance document to the *Santa Clara County Operational Area Emergency Operations Plan* and outlines the general strategy for emergency response to an incident with regional impact. In addition, Santa Clara County in conjunction with other Bay Area city and county governments along with the California Emergency Management Agency developed a *Regional Catastrophic Earthquake Mass Transportation/Evacuation Plan* in 2011, which provides further evacuation planning guidance to city and county governments in the event of an earthquake with region-wide impacts.

The *City of Gilroy Municipal Code Chapter 9 Emergency Organization and Functions* outlines the power and duties of the City Administrator to act as the director of emergency services to ensure the protection of the public and property within the city in the event of an emergency. This chapter of the municipal code addresses the direction of the emergency organization and the coordination of emergency functions with mutual aid.

Thresholds of Significance

The City of Gilroy CEQA thresholds of significance state that a project may have a significant effect on the environment if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Projects that routinely transport, use, or dispose of hazardous materials could have a significant effect;
- 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. Projects that routinely transport, use, or dispose of hazardous materials could have a significant effect;
- 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, create a significant hazard to the public or the environment;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and

- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. A significant could occur if project site is located in an area identified in the CalFIRE high or very high fire hazard severity zone or "mutual threat zone."

Analysis, Impacts, and Mitigation

IMPACT	Create a Hazard to the Public or Environment Through the Routine Transport, Use, or Disposal of Hazardous Materials	Less Than Significant

Future development and modifications to existing development consistent with Gilroy 2040 General Plan land use designations would include construction, manufacturing and other service and household practices involving hazardous materials and waste. Buildout of the Gilroy 2040 General Plan would result in an increase in routine use, storage, transport and disposal of hazardous materials by residents, commercial businesses, and industry. This may increase risks for significant public health and environmental hazards from these activities. An increase in exposure to hazardous materials from these activities that could result in harm to public health and the environment would be a significant impact.

Gilroy 2040 General Plan

The following Gilroy 2040 General Plan goals and policies protect people and environmental resources from contaminated hazardous material sites and minimize risks associated with the use, storage, transport, and disposal of hazardous materials. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs for the full policy language.

Goal PH 5: Protect people and environmental resources from contaminated hazardous material sites and minimize risks associated with the use, storage, transport, and disposal of hazardous materials.

- PH 5.1 Hazardous Materials and Waste Inspections
- PH 5.2 Hazardous Waste Reduction
- PH 5.3 Industrial Wastewater Pretreatment Program
- PH 5.4 Hazardous Materials Storage Ordinance
- PH 5.5 Household Hazardous Waste Collection Facility Use
- PH 5.6 Hazardous Soils Conditions Clean-up
- PH 5.7 Buffers and Setbacks
- PH 5.8 Sensitive Uses

Policy PH 5.1 calls for the provision of inspections to ensure compliance with local, State, and Federal regulations and to reduce the risks associated with the use, handling, and storage of hazardous materials and wastes. Policy PH 5.2 calls for minimization of potential hazards posed by the storage and transport of hazardous materials and waste by encouraging source reduction and waste minimization. Policy PH 5.3 calls for continued implementation of the Pretreatment Program for industrial and commercial wastewater. Policy PH 5.4 calls for continued routine inspections of activities that store and/or use hazardous materials, including above-ground and underground storage tanks and related equipment, to ensure compliance with the city's Hazardous Materials Storage Ordinance. Policy PH 5.5 encourages and calls for education of the community to use the transfer facility for hazardous wastes from households, small businesses, and government agencies located near the San Martin Airport. Policy PH 5.6 calls for the evaluation of new development sites for potentially hazardous soils conditions, and includes policy guidance for cases where contamination is identified to ensure there is no public health danger. Policy PH 5.7 requires review of applications for commercial and industrial uses that involve the use, storage, and transport of hazardous materials to determine the need for buffer zones or setbacks to minimize risks to homes, schools, community centers, hospitals, and other sensitive uses. Policy PH 5.8 requires review of applications for new residential, schools, community centers, hospitals, and other sensitive uses to identify potential implications for existing nearby businesses using, storing, or transporting hazardous materials, and allows for future limitations on the use of such materials by the businesses.

Goal M 6: To provide an efficient system for goods movement that adequately serves the industrial and commercial areas of the city while protecting residents from potentially adverse impacts.

- M 6.1 Truck Routes

Policy M 6.1 requires maintenance and updates to the commercial truck routes map as needed to ensure the needs of business are met while minimizing potential adverse impacts to the rest of the community.

Goal NCR 4: Maintain overall water quality by protecting surface and groundwater sources, restoring creeks and rivers to their natural state, and conserving water resources.

- NCR 4.2 Pollution Prevention
- NCR 4.3 Drinking Water Quality

Policy NCR 4.2 prohibits the development of waste processing facilities and industries using toxic chemicals in areas where pollutants may come in contact with groundwater, floodwaters, creeks, or reservoir waters. Policy NCR 4.3 requires that city drinking water meets the required and recommended standards set forth by the State of California.

Conclusion

Implementation of these Gilroy 2040 General Plan goals and policies in addition to compliance with regulatory requirements for the treatment of hazardous materials and wastes, minimizes the risks to the people and environment resources from the increase use, storage, transport and disposal of hazardous materials to less than significant. No additional mitigation is required.

IMPACT	Create a Hazard to the Public or the Environment Through Reasonably Foreseeable Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment	Less Than Significant

Future development and modifications to existing development consistent with Gilroy 2040 General Plan land use designations would include construction, manufacturing and other service and household practices involving hazardous materials and waste. Buildout of the Gilroy 2040 General Plan would increase the risks of accidental spills and inappropriate disposal of hazardous wastes. Potential sources for accidental release of hazardous materials include commercial and industrial businesses with aboveground or underground storage tanks or other containers for storing fuel, solvents, or other industrial-use chemicals, agricultural/food industry cold storage facilities that utilize refrigerant chemicals, hospitals and data centers with fuel oil powered emergency generators, dry cleaning facilities, or disturbance of unknown USTs or contaminated soil discovered during grading or excavation activities on undeveloped agricultural land. Other potential sources of accidental release of hazardous materials include air emissions or wastewater discharge from commercial or industrial operations that exceed the contaminant threshold concentrations outlined in the individual operating permits issued to those businesses by local or state regulatory agencies (refer to Section 3.3 for air quality). The release of hazardous materials into the environment could adversely affect public health and the environment. This is a significant impact.

Gilroy 2040 General Plan

The following Gilroy 2040 General Plan goals and policies protect people and environmental resources from upset and accident conditions involving the release of hazardous materials into the environment.

Goal PH 5: Protect people and environmental resources from contaminated hazardous material sites and minimize risks associated with the use, storage, transport, and disposal of hazardous materials.

- PH 5.1 Hazardous Materials and Waste Inspections
- PH 5.2 Hazardous Waste Reduction
- PH 5.3 Industrial Wastewater Pretreatment Program
- PH 5.4 Hazardous Materials Storage Ordinance

- PH 5.5 Household Hazardous Waste Collection Facility Use
- PH 5.6 Hazardous Soils Conditions Clean-up
- PH 5.7 Buffers and Setbacks
- PH 5.8 Sensitive Uses

Policy PH 5.1 calls for the provision of inspections to ensure compliance with local, State, and Federal regulations and to reduce the risks associated with the use, handling, and storage of hazardous materials and wastes. Policy PH 5.2 calls for minimization of potential hazards posed by the storage and transport of hazardous materials and waste by encouraging source reduction and waste minimization. Policy PH 5.3 calls for continued implementation of the Pretreatment Program for industrial and commercial wastewater. Policy PH 5.4 calls for continued routine inspections of activities that store and/or use hazardous materials, including above-ground and underground storage tanks and related equipment, to ensure compliance with the city's Hazardous Materials Storage Ordinance. Policy PH 5.5 encourages and calls for education of the community to use the transfer facility for hazardous wastes from households, small businesses, and government agencies located near the San Martin Airport. Policy PH 5.6 calls for the evaluation of new development sites for potentially hazardous soils conditions, and includes policy guidance for cases where contamination is identified to ensure there is no public health danger. Policy PH 5.7 requires review of applications for commercial and industrial uses that involve the use, storage, and transport of hazardous materials to determine the need for buffer zones or setbacks to minimize risks to homes, schools, community centers, hospitals, and other sensitive uses. Policy PH 5.8 requires review of applications for new residential, schools, community centers, hospitals, and other sensitive uses to identify potential implications for existing nearby businesses using, storing, or transporting hazardous materials, and allows for future limitations on the use of such materials by the businesses.

Goal NCR 4: Maintain overall water quality by protecting surface and groundwater sources, restoring creeks and rivers to their natural state, and conserving water resources.

- NCR 4.2 Pollution Prevention

Policy NCR 4.2 prohibits the development of waste processing facilities and industries using toxic chemicals in areas where pollutants may come in contact with groundwater, floodwaters, creeks, or reservoir waters.

Conclusion

Implementation of these Gilroy 2040 General Plan goals and policies in addition to compliance with applicable federal, state and local regulations for hazardous materials and their waste, minimizes the risks to humans and the environment from hazardous materials. Significant impacts are reduced to a less-than-significant level. No additional mitigation is required.

IMPACT	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

Future development and modifications to existing development consistent with Gilroy 2040 General Plan land use designations would emit hazardous emissions and involve the handling of hazardous materials and wastes. Growth associated with buildout of the Gilroy 2040 General Plan will likely require additional school facilities to accommodate an increase in the number of school-age children in Gilroy (refer to Section 3.16). Placement of schools within one-quarter-mile of known hazards could result in a potentially significant impact. Likewise, placement of uses that emit hazardous materials and generate hazardous waste within one-quarter-mile of a school facility could also be a potentially significant impact. An accidental release of hazardous emissions or acutely hazardous materials, substances, or waste generated by existing or future commercial or industrial developments, or by construction activities within one-quarter mile of a school may potentially expose schoolchildren to hazardous air emissions, substances or particulates that may affect their health. Hazardous airborne particulates could degrade air quality and potentially settle on school grounds which may increase schoolchildren's exposure to hazardous contaminants. This is a potentially significant impact.

The location of new school facilities is reviewed by the state for compliance with school siting criteria. In addition, the Gilroy 2040 General Plan includes numerous policies that address placement of new development and compatible land uses in proximity to each other. Compliance with these policies would be evaluated through the development review process.

Gilroy 2040 General Plan

The following Gilroy 2040 General Plan goal and policies address the potential risks for exposure of school children to hazardous emissions, hazardous materials and emissions, and hazardous waste generated by incompatible land uses within one-quarter-mile of a school.

> **Goal PH 5:** Protect people and environmental resources from contaminated hazardous material sites and minimize risks associated with the use, storage, transport, and disposal of hazardous materials.

- PH 5.1 Hazardous Materials and Waste Inspections
- PH 5.2 Hazardous Waste Reduction
- PH 5.4 Hazardous Materials Storage Ordinance
- PH 5.6 Hazardous Soils Conditions Clean-up
- PH 5.7 Buffers and Setbacks

Policy PH 5.1 calls for the provision of inspections to ensure compliance with local, State, and Federal regulations and to reduce the risks associated with the use, handling, and storage of hazardous materials and wastes. Policy PH 5.2 calls for minimization of potential hazards posed by the storage and transport of hazardous materials and waste by encouraging source reduction and waste minimization. Policy PH 5.3 calls for continued implementation of the Pretreatment Program for industrial and commercial wastewater. Policy PH 5.4 calls for continued routine inspections of activities that store and/or use hazardous materials, including above-ground and underground storage tanks and related equipment, to ensure compliance with the city's Hazardous Materials Storage Ordinance. Policy PH 5.5 encourages and calls for education of the community to use the transfer facility for hazardous wastes from households, small businesses, and government agencies located near the San Martin Airport. Policy PH 5.6 calls for the evaluation of new development sites for potentially hazardous soils conditions, and includes policy guidance for cases where contamination is identified to ensure there is no public health danger. Policy PH 5.7 requires review of applications for commercial and industrial uses that involve the use, storage, and transport of hazardous materials to determine the need for buffer zones or setbacks to minimize risks to homes, schools, community centers, hospitals, and other sensitive uses.

Conclusion

Implementation of these goal, policies, and program, and compliance with the state standards for school facilities construction identified in Title 5, Section 14010 of the California Code of Regulations reduce to a less-than-significant level, the exposure risks of schoolchildren to potential hazardous emissions or acutely hazardous materials, substances, or waste from existing or future commercial or industrial developments *within the* Urban Growth Boundary. *No additional mitigation is required.*

IMPACT	Inclusion of a Site Which is Included on a List of Hazardous Materials Sites Compiled Pursuant to Government Code Section 65962.5	Less Than Significant

Many hazardous material sites listed in the State of California GeoTracker and EnviroStor databases for the City of Gilroy are closed, completed or require no further action, and are no longer a considered a significant hazard to the public or the environment. However, development or redevelopment within the Urban Growth Boundary may occur on or near 11 sites that are listed in the State of California GeoTracker and EnviroStor databases. Three of the 11 sites identified in the background report Table 8-4 are located outside of the Urban Growth Boundary. Of the remaining eight sites, three sites have been reclassified as closed, four sites are inactive, and one site (Brite-N-Clean Cleaners located at 8037 Wayland Lane) is documented as being actively remediated under the oversight of the Regional Water Quality Control Board.

It is possible that future development or modifications to existing development within the Urban Growth Boundary may occur on or near one or more of the identified sites, or additional sites that may be identified in the future. Future construction workers may encounter residual soil, soil vapor, and/or groundwater contamination during construction work at or in the vicinity of these contaminated sites. The risks to public health and safety from development on or in the vicinity of sites that are completed, closed, inactive, require no further action, or undergoing active remediation, would be less than significant and no mitigation measures are required.

Gilroy 2040 General Plan

The following Gilroy 2040 General Plan goal and policies address risks of exposure to hazardous material sites in the City of Gilroy.

> **Goal PH 5:** Protect people and environmental resources from contaminated hazardous material sites and minimize risks associated with the use, storage, transport, and disposal of hazardous materials.
>
> - PH 5.4 Hazardous Materials Storage Ordinance
> - PH 5.6 Hazardous Soils Conditions Clean-up

Policy PH 5.5 encourages and calls for education of the community to use the transfer facility for hazardous wastes from households, small businesses, and government agencies located near the San Martin Airport. Policy PH 5.6 calls for the evaluation of new development sites for potentially hazardous soils conditions, and includes policy guidance for cases where contamination is identified to ensure there is no public health danger.

Conclusion

Implementation of these Gilroy 2040 General Plan goal and policies in addition to compliance with applicable federal, state and other local regulations reduce the public health risks and potential environmental damage from exposures to known sites with hazardous materials. In the event that residual contamination is encountered on a property, Policy PH 5.6 requires that all necessary mitigation measures are incorporated into the project to ensure there is no public health danger. The responsible county or state agency will evaluate the potential hazards and provide appropriate guidance for protecting and minimizing risks to the public and the environment during site development. No additional mitigation is required.

IMPACT	The 2040 General Plan Would Not Impair Implementation of or Physically Interfere with an Adopted Emergency Response Plan or Emergency Evacuation Plan	No Impact

The adopted *Santa Clara County Operational Area Emergency Operations Plan* serves the entire population of Santa Clara County, including the City of Gilroy. Periodically, the entire *Santa*

Clara County Operational Area Emergency Operations Plan is updated and republished as a result of post-incident analyses, or if there are changes to responsibilities, procedures, laws, rules, or regulations pertaining to emergency management and operations (Santa Clara County Office of the County Executive 2017). The plan was most recently updated in 2017. The *Santa Clara County Operational Area Emergency Operations Plan* does not contain an evacuation map that outlines the routes or locations of emergency facilities for the City of Gilroy. The *Regional Catastrophic Earthquake Mass Transportation/Evacuation Plan* contains regional evacuation maps for 12 counties including Santa Clara County. These regional maps include base camps for emergency service workers, Caltrans lifeline routes and priority transportation routes, and axis of movement for mass transportation/evacuation operations for air, rail, roads and highways (California Emergency Management Agency 2011).

Future development associated with the buildout of the 2040 Gilroy General Plan would increase population but would not impair implementation of or physically interfere with the adopted local and regional emergency response plans and evacuation plans. The population increase anticipated by the Gilroy 2040 General Plan could increase the number of affected people that might require evacuation and government/emergency organizations assistance in the event of an emergency or catastrophe where local or regional critical infrastructures are damaged. All emergency response plans are evaluated periodically to accommodate regional population growth and changes in development patterns. Periodic review of these regional emergency plans in addition to local performance reviews (police and fire as part of the city's biennial budget cycle) ensures the maintenance of adequate emergency response times and adequacy of established emergency evacuation routes and plans. No impact has been identified. No further analysis is required.

Conclusion

Implementation of the Gilroy 2040 General Plan would result in no impact to the implementation of an adopted emergency plan or evacuation plan.

IMPACT	Expose People and Structures to a Risk of Loss, Injury, or Death Involving Wildland Fires, Including Where Wildlands are Adjacent to Urbanized Areas or Where Residences are Intermixed with Wildlands	Less Than Significant

The majority of the area within the Urban Growth Boundary that has been developed with urban uses is generally not susceptible to risks from wildland fires. However, the southern and western portions of the Urban Growth Boundary contain hilly terrain that is becoming increasingly populated with residences with undeveloped steeper terrain beyond many of those neighborhoods. The western hillside areas pose a high fire hazard for the residents who live there. These areas are subject to special development controls to help reduce the potential loss of life and property in the event of a local wildfire. As part of the 2019 California fire code adoption (CCR Title 24, Part 9), all new construction in Residential Hillside areas should meet the very high standards of Chapter 7A of the Building Code. The potential impacts/risks to people and structures from wildfires would be significant.

Gilroy 2040 General Plan

The following Gilroy 2040 General Plan goals and policies address the risks of human harm and property damage due to wildland fires.

> **Goal PH 1**: Minimize potential for loss of life, injury, damage to property, and economic and social dislocation due to natural hazards through development controls and emergency preparedness.

- PH 1.1 Location of Future Development
- PH 1.2 Emergency Services
- PH 1.3 Development Review
- PH 1.4 Secondary Access
- PH 1.5 Building and Fire Codes
- PH 1.6 Essential Emergency Public Services
- PH 1.7 Mutual Aid Agreements
- PH 1.12 Public Information
- PH.1.15 Emergency Preparedness Planning
- PH 1.16 Development Tracking System
- PH.1.18 Address Emergency Preparedness in Plan and Code Updates

Policy PH 1.1 allows development only in those areas where potential danger to the health, safety, and welfare of residents can be adequately mitigated to an acceptable level of risk and applies to development in areas subject to flood damage, fire damage, or geological hazard due to their location and/or design. Policy PH 1.2 prohibits development in areas where emergency services, including fire protection, cannot be provided. Policy PH 1.3 requires appropriate studies as part of the development review process to assess potential hazards and assure that potentially significant impacts are adequately mitigated. Policy PH 1.4 requires the provision of secondary access for residential Streets and developments serving 30 or more single-family units or 100 or more multi-family units, subject to review by the Fire Chief. Policy PH 1.5 requires regular updates to the building and fire codes to address earthquake, fire, and other hazards. Policy PH 1.6 calls for provision of essential emergency public services during natural catastrophes and their aftermath to ensure a rapid recovery. Policy PH 1.7 requires maintenance of mutual aid agreements with Santa Clara County, Cal Fire, and nearby cities to ensure adequate response to large-scale emergencies and multiple, simultaneous incidents that might exceed the capabilities of local resources. Policy PH 1.12 requires the provision of information through the city's quarterly newsletter, and through local radio and television, the internet, social media, and reverse 911 directories to educate the public on potential natural hazards and actions they can take to help

minimize those hazards. Policy PH 1.15 requires that new specific plans and city plans and programs address emergency preparedness. Policy PH 1.16 states the city should consider the feasibility of procuring and implementing a system to track development in hazard prone areas. Policy PH 1.18 requires that the city address emergency preparedness during the next update to the city's Capital Improvement Plan, Storm Water Quality Protection and Discharge Control and Habitat Conservation Plan provisions in the Municipal Code, or for any new storm water management plans in order to reduce natural disaster impacts.

Goal PH 4: Protect life and minimize potential property damage from wildfires in the wildland/urban interface area and hazardous fire areas.

- PH 4.1 Fire Hazard Severity Zones
- PH 4.2 Development Review
- PH 4.3 Roofing Requirements
- PH 4.4 Hillside Areas
- PH 4.5 Fire Safety Education and Training

Policy PH 4.1 requires development in the Gilroy wildland/urban interface area conforms to the most current standards for wildfire protection. Policy PH 4.2 requires provision of plan checks for new construction, remodels, tenant improvements, and demolitions to ensure compliance with applicable life safety and fire protection system requirements, including special requirements for fire safety in areas with wildfire risk. Policy PH 4.3 require "Class A" fire-rated roofs on all new construction or re-roofing in areas west of Santa Teresa Boulevard, and south of Mantelli Drive, and west of Rancho Hills Drive. In all other areas, this policy requires "Class C" or better fire rated roofs for new construction and re-roofing. Policy PH 4.4 requires development in hillside areas to comply with the fire hazard policies and codes adopted into the Gilroy Fire Code for wildland/urban interface areas. Policy PH 4.5 calls for provision of information on wildfire safety and prevention to raise public awareness on fire hazard issues and encourage preventive measures.

Goal PFS 10: Provide for public health and safety by offering high quality fire and emergency-response services.

- PFS 10.1 Standards of Service
- PFS 10.5 New Development
- PFS 10.6 Sprinklers
- PFS 10.8 Fire Access Design and Building Materials

Policy PFS 10.1 requires the provision and maintenance of fire services that are adequate in staffing, equipment, and resources to respond to emergencies and calls for service as the city continues to grow. This policy requires the City Council establishment of measurable

standards of levels of service in the biennial budget and be aligned with National Best Practices and requires annual reporting by city staff on actual performance compared against the established standards. Policy PFS 10.3 requires Fire Marshall review of development proposals to ensure that projects adequately address fire access and building standards. Policy PFS 10.5 requires new development to provide all necessary water service, fire hydrants, and roads consistent with Fire Department standards. Policy PFS 10.6 requires installation of sprinklers in all new buildings in accordance with the California Fire Code. Policy PFS 10.8 requires all new development to include use of fire-resistant landscaping and building materials and adequate access for fire equipment.

Conclusion

Implementation of these Gilroy 2040 General Plan goals and policies reduces potential, significant impacts related to an increased risk of human harm and/or property damage involving wildland fires to less than significant. No additional mitigation is required.

3.9 STORM WATER & FLOODING

Unless otherwise noted, the information contained within this section is largely based on the *Gilroy 2040 General Plan Background Report* (Mintier Harnish 2014). The background report is available for review on the city's website at http://www.gilroy2040.com/documents/.

A comment in response to the NOP was received from Valley Water requesting the EIR to address the adequacy and capacity of existing creeks and channels operated and maintained by Valley Water to accommodate runoff from new development as identified in the Gilroy 2040 General Plan and to identify any appropriate mitigation measures that may be needed as a result of the potential to increase the frequency of flooding, exacerbate existing flooding, or induce flooding from existing creeks or channels. This comment is addressed in the analysis of this section. No additional comments regarding storm water and flooding issues were received in response to the NOP.

Environmental Setting

Watershed

Gilroy is located within the greater Pajaro River Watershed and is bisected by two sub-watersheds that convey storm water runoff to smaller creeks that ultimately drain to the Pajaro River and Monterey Bay: the Uvas Creek Watershed and the Llagas Creek Watershed, also collectively referred to as the Uvas-Llagas Watershed. The City of Gilroy generally is bound to the southwest by Uvas Creek and to the east by Llagas Creek. The city lies within the Central Coast Regional Water Quality Control Board's Watershed Management Zone 1, which includes almost two-thirds of the urban area of the Central Coast region. This management zone is characterized by moderately sloped areas overlying Quaternary and Late Tertiary deposits. Drainage is to streams or to wetlands. The dominant watershed processes are infiltration into shallow and deeper soil layers in recharge areas, overland flow is localized and rare.

Storm water runoff generally drains from northwest to southeast in the city, with storm drainage pipelines collecting runoff and discharging to canals or creeks within the city. The Urban Growth Area contains the lower parts of the Uvas-Llagas Creek watershed, Uvas Creek becomes Carnadero Creek east of U.S. Highway 101. These creeks flow generally southward as tributaries to the Pajaro River, which empties into Monterey Bay near the City of Watsonville. In addition to these creeks a number of drainage channels also under the jurisdiction of Valley Water are present within the Urban Growth Boundary.

Rainfall

Annual precipitation in the region ranges from less than 16 inches in the south to more than 24 inches in the north. The majority of rainfall in the region occurs, on average, during the months of October through April. Valley Water maintains precipitation gage information for several watersheds throughout Santa Clara County, including the Pajaro River Watershed, which has six monitoring sites. Rainfall in Gilroy for 2017 reflected low totals in keeping with the drought conditions of much of the region, with the monthly average rainfall of 0.20 inches. Data collected by the University of California Cooperative Extension indicates that rainfall has been increasing since 2017 when it started at 0.20 average monthly inches increasing to 1.96 inches in 2019 (University of California Cooperative Extension 2020).

Surface Waters

The Uvas-Llagas watershed is a 104 square-mile region that is distinguished by its agricultural lands and natural areas. Part of the larger Pajaro River Watershed, the creeks in this watershed are the only waterways in Santa Clara County that flow southward. The Uvas Creek watershed is approximately 26 miles long and the Llagas Creek watershed is approximately 22 miles long. Gilroy is at the downstream end of these watersheds, with approximately half of the area draining to Uvas Creek watershed and half to Llagas Creek watershed. Both creek systems have their headwaters, or beginnings, in the Santa Cruz Mountain Range.

The major channels in and around Gilroy include Uvas Creek, Llagas Creek, Upper Miller Slough and Lower Miller Slough (sections located west and east of U.S. Highway 101), West Branch Llagas Creek (including its tributaries of Lions Creek, North Morey Creek, and South Morey Creek), and Babbs Creek (sections located northeast and southwest of Santa Teresa Boulevard). Channels in the Llagas Creek portion of the Uvas-Llagas watershed have been modified substantially to convey flood flows. Some channels are natural, while others in the urban areas of Gilroy are highly modified and largely unvegetated. Between U.S. Highway 101 and Santa Teresa Boulevard, parts of Uvas Creek have also been modified with levees and protective covering to convey flood flows. In addition, extensive quarry operations from the 1940s through the 1960s in the Christmas Hill Park area have affected channel shapes of Uvas Creek.

Listed below are the major channels and watercourses located within the Urban Growth Boundary. Valley Water is responsible for the operation of the listed major channels and watercourses:

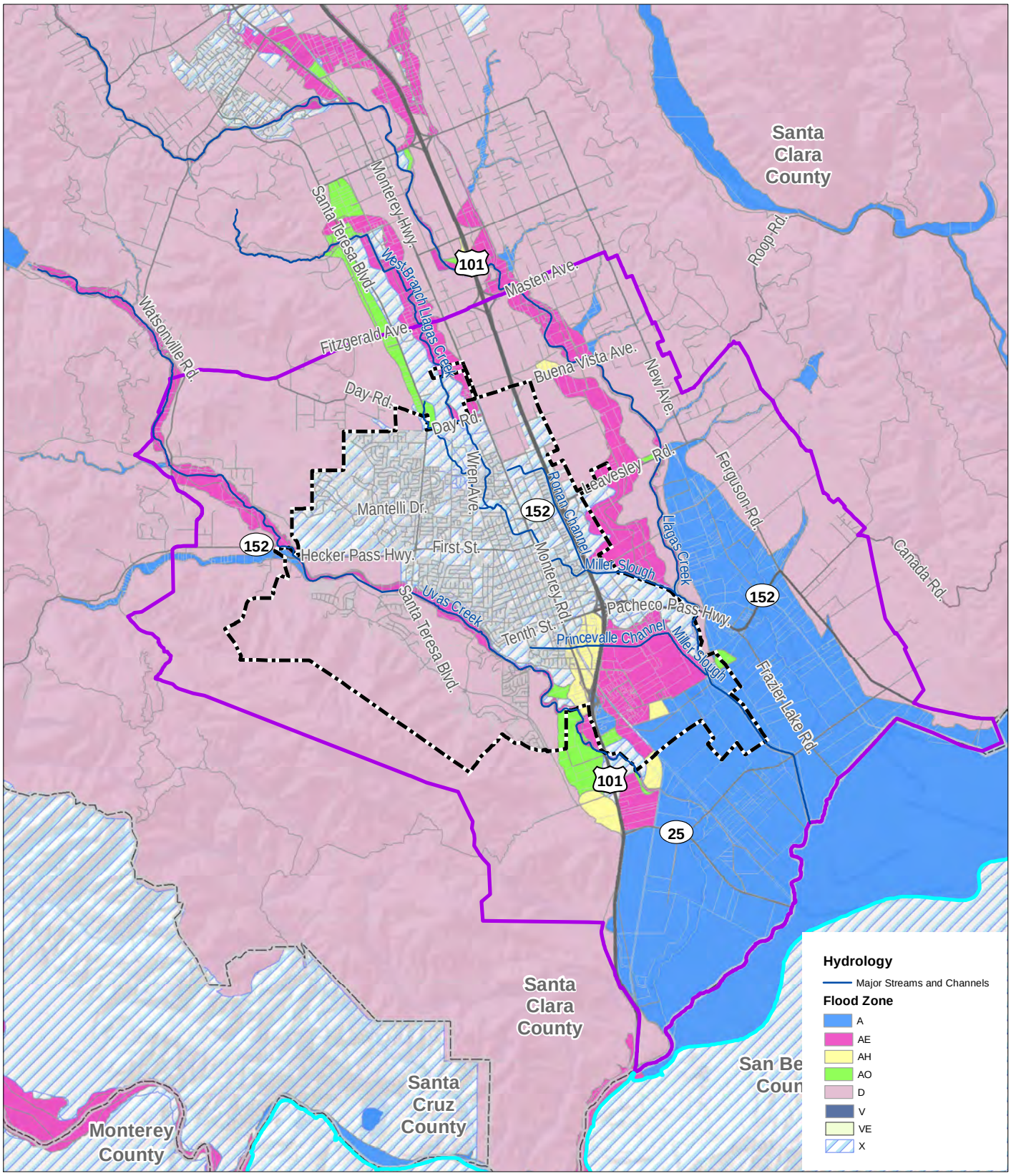
- Miller Slough is located in the central portion of the city and drains east to the Ronan Channel;
- Ronan Channel, also known as PL-566, drains the northern and northwestern portion of the city east to Llagas Creek. This is an improved channel that provides 100-year flood control channel capacity to several smaller channel reaches in the city;
- Princevalle Channel provides storm water drainage for the southern portion of the city, and conveys runoff east to Llagas Creek;
- Llagas Creek is an unimproved natural creek that runs southeast out of the Santa Cruz Mountains to the Pajaro River; and
- Uvas Creek is an unimproved natural creek that runs southeast out of the Santa Cruz Mountains to the Pajaro River. A levee paralleling Uvas Creek to the north protects the city from 100-year flood flows.

Storm Drainage System

The City of Gilroy provides storm water collection and drainage services to residential, commercial, industrial, and institutional land uses and includes approximately 96 miles of pipelines and one retention basin located at Las Animas Park. Additionally, the city maintains over 150 outfalls to local channels and creeks. The city's storm drainage system, including on public roadways within the Urban Growth Boundary, consists of a combination of curb and gutter facilities, curb inlets, and underground pipelines draining to the nearest creek or to a manmade channel.

FEMA Flood Zones

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate maps are the basis for establishing premium rates for flood coverage offered through the National Flood Insurance Program. The primary risk classifications used are the 100-year flood event (i.e., one-percent-annual-chance flood event) and the 500-year flood event (i.e., 0.2-percent-annual-chance flood event). As illustrated by Figure 3.9-1, Flood Risk Areas, some areas within the Urban Growth Boundary are located within the 100-year floodplain. Table 3.9-1, Definition of FEMA Flood Zones, provides definitions of flood zones that FEMA has defined according to varying levels of flood risk and type of flooding. Within the Urban Growth Boundary, flood zones A, AE, AH, and D have been identified by FEMA flood mapping. These areas have a one percent or greater chance of annual shallow flooding with average depths between one and three feet.



Source: Federal Emergency Management Agency (FEMA) 2016, City of Gilroy 2018, Esri 2015

Figure 3.9-1

Flood Risk Areas

Gilroy 2040 General Plan EIR

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Table 3.9-1 Definition of FEMA Flood Zones

Zone	Description
Special Flood Hazard Areas – High Risk	
A	Areas subject to inundation by the 1-percent-annual-chance flood event.
AE, A1-A30	Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods.
AH	Areas subject to inundation by 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are one to three feet.
AO	Areas subject to inundation by 1-percent-annual-chance shallow flooding (usually sheet flow on sloping terrain) where average depths are one to three feet.
AR	Areas that result from the decertification of a previously accredited flood protection system that is determined to be in the process of being restored to provide base flood protection.
A99	Areas subject to inundation by the 1-percent-annual-chance flood event, but which will ultimately be protected upon completion of an under-construction Federal flood protection system. These are areas of special flood hazard where enough progress has been made on the construction of a protection system, such as dikes, dams, and levees, to consider it complete for insurance rating purposes.
Moderate and Minimal Risk Areas	
B,X (shaded)	Moderate risk areas within the 0.2-percent-annual-chance floodplain, areas of 1-percent-annual chance flooding where average depths are less than one foot, areas of 1-percent-annual-chance flooding where the contributing drainage area is less than one square mile, and areas protected from the 1-percent-annual-chance flood by a levee.
C,X (unshaded)	Minimal risk areas outside the 1-percent and 0.2-percent-annual-chance floodplains.
Undetermined Risk Areas	
D	Unstudied areas where flood hazards are undetermined, but flooding is possible.

Source: FEMA 2013

Floodway areas are channels of a river or other watercourse and the land areas adjacent to them that must be reserved in case of a flood. They can be extremely hazardous areas due to the potential velocity of flood waters, which can carry debris and potential projectiles, as well as erosion potential. Special provisions for construction and improvements located in areas of special flood hazard are contained in the city's Floodplain Management Ordinance (Ordinance No. 98-17).

The Association of Bay Area Governments (ABAG) Resilience Program database for land use and infrastructure in hazard areas estimated from 2005 existing land use and 2009 hazard mapping data for Gilroy, that approximately eight percent of the city's urban land is located within the 100-year flood plain, and approximately 77 percent of the urban land in the city is located within the 500-year floodplain. Urban land included land identified as residential, mixed commercial/industrial, industrial, major infrastructure, commercial/services, and open areas (parks, recreation, and cemeteries). Non-urban land included agricultural, rangeland, forest land, and sparsely vegetated land.

As mapped by FEMA, the majority of developed areas within the Urban Growth Boundary are categorized as minimal risk areas (Zone X). Areas subject to the 100-year flood are concentrated in the lesser developed southeast part of the city and adjacent to Uvas Creek and Llagas Creek north of the city limit.

Flood Protection

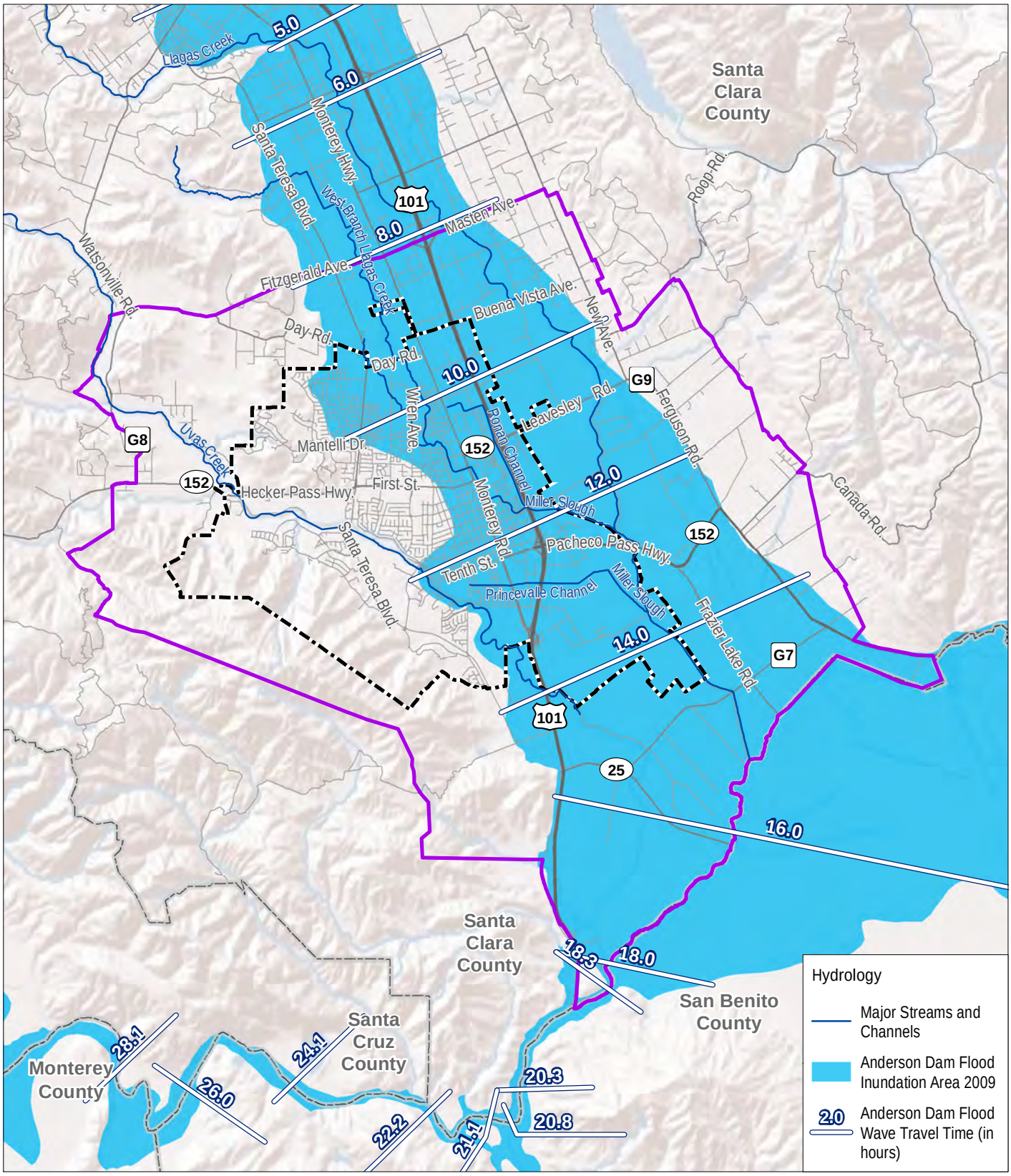
While not intended for flood control, Uvas Creek and Llagas Creek are dammed and receive controlled releases from reservoirs upstream of Gilroy. Chesbro Reservoir controls flows within the Llagas Creek channel and Uvas Reservoir controls flows within Uvas Creek channel. The reservoirs and dams are operated by Valley Water and are used for water supply. Additionally, the U.S. Army Corps of Engineers (USACE) is responsible for conducting regular inspections of the dams. In addition to the unintentional flood control provided by the reservoirs, several flood control projects have been completed within the city. These projects consist of the PL-566 channel (Ronan Channel) and levee improvements on Llagas Creek and its tributaries, and the USACE levee improvements on Uvas Creek. Additionally, areas within the Gilroy 2040 General Plan Planning Area/Sphere of Influence are subject to inundation from dam failure, as indicated in Figure 3.9-2, Dam Failure Inundation Area. In addition to potential inundation hazards of the Chesbro Dam and Uvas Dam, northern portions of the Urban Growth Boundary are also in the potential dam failure inundation area from Anderson Dam, located east of Morgan Hill.

Storm Water Runoff and Water Quality

Beneficial uses have been established under the Clean Water Act for the waters into which storm water flows. Beneficial uses include agricultural, municipal, and industrial supply, groundwater recharge, recreational or fishing uses, and various natural resources uses, including cold freshwater habitat, migration, and fish spawning. However, these uses can be exposed to potential adverse drainage impacts from nonpoint sources of runoff including storm water. Existing conditions and typical sources of polluted runoff in Gilroy are described below.

Much of the vacant land within the Gilroy 2040 General Plan Planning Area/Sphere of Influence is predominantly agricultural and rural in nature. Primary storm water pollutants from agricultural areas are sediment and nitrates. Llagas Creek is among a number of streams in the Central Coast region that are impaired by high levels of these pollutants, and total maximum daily loads for these pollutants have been established for Llagas Creek and the Pajaro River. The Pajaro River and Llagas Creek have consistent nitrate violations that impair the ability of these water bodies to support their beneficial uses for municipal and domestic water supply. The primary source of these impairments is croplands. Agricultural chemicals are another source of polluted runoff in the Llagas Groundwater Subbasin.

Urban development is widely regarded as a leading cause of pollution throughout California and the nation, by altering watershed hydrology and introducing pollutants. Urban development alters the natural hydrology in the watershed in several ways. Natural



Source: Santa Clara Valley Water District 2009, City of Gilroy 2018, Esri 2015

Figure 3.9-2

Dam Failure Inundation Area

Gilroy 2040 General Plan EIR

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drainage systems are replaced with pipes and ditches, the land is graded, and impervious surfaces are created, all of which may reduce percolation, increase surface runoff, and damage aquatic habitat. Further, removal of vegetation increases erosion potential. In addition, urbanization tends to bring more pollutants. At the same time, the changes to the land's natural hydrology may reduce the land's natural capacity to remove pollutants, further heightening the problem of pollutants being washed into the storm drain system and ultimately into surface waters.

In addition, construction activities disturb the native soils of a site and cause the soil to be vulnerable to erosion. Improperly managed construction sites can provide many sources of storm water pollution, including sediment, sewage, construction waste, solid waste, fertilizer, pesticides, oil, grease, fuel, concrete washout, glues, paint, solvents, and trash. Sediment runoff is the primary pollutant at construction sites. During a short period of time, construction activities can contribute more sediment to streams than would be deposited naturally during several decades. The sediment and other pollutants found in construction site runoff can cause physical, chemical, and biological harm to downstream waters.

Urban development produces runoff that may be substantially greater in volume, velocity, and/or pollutant load than pre-development runoff from the same area. Increased runoff volume and velocity can also significantly affect beneficial uses of aquatic ecosystems due to physical modifications of watercourses, such as bank erosion and widening of channels.

Regulatory Setting

Federal

Federal Clean Water Act and State Porter-Cologne Water Quality Control Act. Water quality objectives for all waters in the State of California are established under applicable provisions of Section 303 of the Federal Clean Water Act and the state Porter-Cologne Water Quality Control Act. These laws seek to control the addition of source and non-source pollutants to surface waters and to protect the integrity of wetlands.

Section 303 of the Clean Water Act requires states to adopt water quality standards for all surface waters. Section 304(a) requires the U.S. Environmental Protection Agency (EPA) to publish water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in the water. The State Water Resources Control Board and the nine regional water quality control boards are responsible for assuring implementation and compliance with the provisions of Clean Water Act and the Porter-Cologne Water Quality Control Act.

National Pollutant Discharge Elimination System. The EPA has published regulations establishing storm water permit application requirements under the Clean Water Act. The National Pollutant Discharge Elimination System (NPDES) program controls and reduces pollutants to water bodies from point and non-point discharges. The EPA has published regulations establishing storm water permit application requirements under the Clean

Water Act. The NPDES program controls and reduces pollutants to water bodies from point and non-point discharges. The 1987 amendments to the Clean Water Act (Section 402[p]) provided for the EPA regulation of several new categories of non-point pollution sources. In Phase I, NPDES permits were issued for urban runoff discharges from municipalities of over 100,000 people, from plants in industries recognized by the EPA as being likely sources of storm water pollutants, and from construction activities that disturbed more than five acres. Phase II implementation, effective in 2003, extended NPDES urban runoff discharge permitting to cities of 50,000 to 100,000, and to construction sites that disturb between one and five acres. The Phase II regulations establish a sequential application process for all Phase II storm water discharges, which include all discharges composed entirely of storm water, except those specifically classified as Phase I dischargers. Such discharges may include storm water from small municipal separate storm sewer systems, and commercial and institutional facilities.

The NPDES Phase II Storm Water Program requires municipal storm sewer systems to obtain a permit and develop a storm water management program designed to prevent harmful pollutants from being washed by storm water runoff into local water bodies. The program must include public education, public participation and involvement, illicit discharge detection and elimination, construction site runoff control, post-construction runoff control and pollution prevention, and good housekeeping.

Specific development projects that disturb more than one acre of land during construction are required to file a notice of intent to be covered under the State NPDES General Construction Permit for discharges of storm water associated with construction activities. The NPDES construction permit requires implementing both construction and post construction phase storm water pollution best management practices. The State NPDES General Construction Permit requires development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that uses storm water "Best Management Practices" to control runoff, erosion, and sedimentation from the site both during and after construction. The SWPPP has two major objectives: 1) to help identify the sources of sediments and other pollutants that affect the quality of storm water discharges, and 2) to describe and ensure the implementation of practices to reduce sediment and other pollutants in storm water discharges.

Federal Emergency Management Agency. FEMA administers programs to address flood hazards. FEMA manages the National Flood Insurance Program for this purpose. The insurance program provides federal flood insurance for property owners in flood prone areas. For local property owners to qualify for federal flood insurance, the city must identify flood hazard areas and implement a system of protective controls. For this purpose, FEMA produces Flood Insurance Rate Maps that define areas subject to inundation by flooding. The protective controls that must be implemented to reduce flood hazards and damage to property are generally incorporated into a flood hazard management program and general plan policies of local jurisdictions. These tools assist cities in mitigating flooding hazards through land use planning and building permit requirements.

State

The State Water Resources Control Board and the nine regional water quality control boards are responsible for assuring implementation and compliance with the provisions of the Clean Water Act and the Porter-Cologne Water Quality Control Act.

Santa Clara County is divided between two regional water quality control boards: the San Francisco Bay Regional Water Quality Control Board (San Francisco Bay water board) and the Central Coast Regional Water Quality Control Board (Central Coast water board). The northern portion of the county drains to San Francisco Bay and is under the jurisdiction of the San Francisco Bay water board. The southern portion of the county, including the City of Gilroy, drains to the Pajaro River and Monterey Bay and is under the jurisdiction of the Central Coast water board. The State Water Resources Control Board protects water quality through designation of beneficial uses, establishment of water quality objectives, and administration of the NPDES permit program for storm water and construction site runoff.

The Central Coast water board regulates water quality in streams and aquifers throughout the central coast of California and the Monterey Bay region through designation of beneficial uses, establishment of water quality objectives, and administration of the NPDES permit program, and is also responsible for providing permits under Section 401 of the Clean Water Act.

The Central Coast water board is the jurisdictional authority responsible for implementation of and ensures compliance with the Water Quality Control Plan for the Central Coastal Basin. This plan designates Monterey Bay as biologically important surface water, but does not include any site-specific water quality policies. The Central Coast water board has established total maximum daily loads for fecal coliform, sediment, and nitrates for the Pajaro River and its tributaries, including Llagas Creek. Domestic animal waste and human waste discharge prohibitions are in effect to protect water contact recreation in the watershed. Land disturbance prohibitions are applicable to pasture and range lands, roads, animal and livestock facilities, and hydromodification-related activities that result in stream bank erosion. Maximum nitrate concentrations are set by the Central Coast water board for both the Pajaro River and Llagas Creek.

Under Resolution No. R3-2013-0032, post-construction requirements for hydromodification control and low impact development techniques have been established for projects under the jurisdiction of the Central Coast water board. These requirements are intended to provide "at-the-source" solutions to reduce the effects of development on watersheds and encourage runoff from watersheds to mimic pre-development conditions. The Central Coast water board requirements focus on infiltration as the primary means to treat runoff from smaller storms for water quality purposes and decrease the amount of runoff to protect water courses from erosion.

The post-construction requirements identify several thresholds based on the amount of impervious surface area that trigger various requirements for reducing and/or treating

runoff from development. Site design and runoff reduction measures are triggered at 2,500 square feet, water quality treatment at 5,000 square feet, runoff retention at 15,000 square feet and peak management at 22,500 square feet. Site design measures include defining a development envelope, conserving natural areas, concentration of development on less permeable soils, etc. Runoff reduction measures encourage directing runoff to landscaping and low impact development structural control measures such as bioretention, rainwater harvesting and reuse, pervious pavement, vegetated roofs, and soil amendments. Where low impact development techniques are not feasible, infiltration basins, dry wells, constructed wetlands, and similar measures are encouraged. On-site runoff retention is required to retain and infiltrate runoff volumes generated by a 95th percentile storm, and project-specific storm water control plans are required to demonstrate how this would be accomplished.

The Central Coast water board adopted a resolution (Resolution R3-2013-0032) for approving post-construction storm water management requirements for development projects in the Central Coast Region. This resolution went into effect on March 6, 2013. The City of Gilroy, City of Morgan Hill, and Santa Clara County have jointly developed post-construction storm water control standards in order to meet the requirements of this resolution. All new and redevelopment projects within the city must be designed in accordance with the city's post-construction storm water pollution prevention ordinance (Municipal Code, Chapter 27D) and the "Stormwater Management Guidance Manual for Low Impact Development and Post-Construction Requirements."

The Central Coast water board post-construction storm water control requirements include the following:

- Performance Requirement No. 1. The project shall implement onsite storm water quality treatment measures that promote infiltration, harvesting and use, and/or evapotranspiration for the runoff generated by the 85th percentile 24-hour storm;
- Performance Requirement No. 2. Where infiltration is infeasible, the project may implement biofiltration or non-retention-based treatment systems;
- Performance Requirement No. 3. The project shall prevent offsite discharge from events up to the 95th percentile 24-hour rainfall event via optimizing infiltration; and
- Performance Requirement No. 4. The project shall demonstrate that post-development storm water runoff peak flows discharged from the site do not exceed pre-project peak flows for the 2- through 10-year storm events.

Individual development projects are encouraged to achieve the Performance Requirements by preserving natural landscape areas and introducing new self-retaining or self-treating areas to the maximum extent practicable. When full compliance cannot be met via self-retaining or self-treating areas, the project shall implement storm water control measures

that promote infiltration. Where infiltration is found to be technically infeasible, and prevents full on-site compliance with Performance Requirement No. 3, on-site retention of the full retention volume is not required. However, the project is required to dedicate no less than ten percent of the project's equivalent impervious surface area, to retention-based storm water control measures. Retention-based storm water control measures include, but are not limited to, unlined bioretention cells, bioswales, pervious pavement, underground retention facilities, and green roofs. Perforated underdrain systems may be used as long the underdrain is located at the top of the subsurface gravel layer. If the project is unable to allocate the full 10 percent of the project site's equivalent impervious surface area to retention-based storm water control measures, the project is required to implement off-site compliance measures.

Site design and runoff reduction strategies to meet Performance Requirement No. 1 could include:

- Limiting disturbance of creeks and natural drainage features;
- Minimizing compaction of highly permeable soils;
- Limit clearing and grading of native vegetation;
- Protect sensitive areas and leave portions of the site in a natural undisturbed state; and
- Minimize storm water runoff by disconnecting impervious surfaces, utilizing rain barrels, and including pervious pavement.

Site-specific source control measures are needed for development in drainage areas that are not managed by self-treating or self-retaining areas in accordance with Performance Requirements No. 2 and 3. Source control measures seek to manage pollutants at the source and reduce their ability to enter the storm drain system and transport downstream. Examples of typical source control measures include:

- Educating residences on general practices that contribute to the protection of storm water quality;
- Implementing low pesticide and fertilizer landscape management practices;
- Routine maintenance of storm water best management practices and source control measures;
- Providing litter disposal facilities in common areas, and implement a routine litter pickup and disposal program;
- Stenciling all drain inlets with "No Dumping – Flows to Bay" or similar message;
- Implementing a routine street sweeping program;

- Restricting vehicle washing and maintenance to specific locations; and
- Restricting storage of hazardous materials to covered and protected areas.

Regional

Valley Water. Valley Water manages an integrated water resources system that includes the supply of clean water, flood protection, and stewardship of streams within Santa Clara County. Valley Water manages 10 dams and surface water reservoirs, three water treatment plants, an advanced recycled water purification center, a water quality laboratory, nearly 400 acres of groundwater recharge ponds and more than 275 miles of streams. Valley Water provides wholesale water and groundwater management services to local municipalities and private water retailers who deliver drinking water directly to homes and businesses in Santa Clara County. Valley Water maintains many of the creeks and storm water channels located within and in the vicinity of the Gilroy 2040 General Plan Planning Area/Sphere of Influence. Valley Water's Water Resources Protection Ordinance regulates modifications, entry, use, or access to Valley Water facilities and/or easements.

Santa Clara Valley Habitat Agency. Gilroy is located within the boundaries of the Santa Clara Valley Habitat Plan (SCVHP), a combined habitat conservation plan and natural community conservation plan incorporating the southern portion of Santa Clara County. Section 6 of the SCVHP identifies conditions of permit approval that minimize impacts to wetlands and waterways resulting from urban development, in-stream capital projects, and rural capital projects. SCVHP Condition 3, Maintain Hydrologic Conditions and Protect Water Quality, applies to urban development within the city's Urban Service Area, and requires new urban development to comply with NPDES requirements and applicable storm water quality guidelines to reduce and minimize impacts from development to aquatic species and their habitats.

SCVHP Condition 4, Avoidance and Minimization for In-Stream Projects, requires specific development projects to minimize impacts on riparian and aquatic habitat, and on wildlife movement. The SCVHP also provides design standards for in-stream projects to ensure the provision of aquatic avoidance and minimization measures. Condition 6, Design and Construction Requirements for Covered Transportation Projects, identifies design requirements to minimize the impacts of transportation projects on wildlife movement in proximity to streams. Section 6.5 of the SCVHP, Conditions to Minimize Impacts on Natural Communities, includes Condition 11, Stream and Riparian Setbacks, that applies to all development within an Urban Service Area where a stream or the stream setback overlaps with any portion of a parcel upon which development would occur. A stream is generally defined as a watercourse that flows at least periodically or intermittently through a bed or channel having banks.

Stormwater Management Guidance Manual (2015) Gilroy, Morgan Hill and the portion of Santa Clara County that drains to the Pajaro River- Monterey Bay watershed are traditional Permittees under the State's Phase II Small MS4 General Permit ("Phase II Permit"). Since

Gilroy, Morgan Hill and South Santa Clara County are located in Regional Water Quality Control Board Region 3 (Central Coast Region), they are subject to the Central Coast Post-Construction Requirements per Provision E.12.k of the Phase II Permit. The Central Coast Post-Construction Requirements were adopted in Resolution R3-2013-0032 and are specific to the Central Coast Region. This manual provides guidance for implementing these low impact development and post-construction requirements to reduces storm water runoff impacts.

Santa Clara County Operational Area Hazards Mitigation Plan (2017). In 2004, Association of Bay Area Governments (ABAG) led a regional effort to address hazard mitigation planning for Bay Area jurisdictions, including regulations intended to mitigate potential natural disasters such as flooding, to meet federal hazard mitigation planning requirements. In 2010, ABAG conducted its second regional planning effort. Municipalities that used the 2010 updated ABAG tools to meet federal hazard mitigation planning requirements included the County of Santa Clara and the cities of Campbell, Cupertino, Gilroy, Los Altos, Los Altos Hills, Los Gatos, Milpitas, Monte Sereno, Morgan Hill, Mountain View, Palo Alto, San José, Santa Clara, Saratoga and Sunnyvale. ABAG discontinued its full support of the regional planning concept in 2015, so jurisdictions that were covered under the regional plan were required to initiate multijurisdictional planning efforts to continue to comply with federal mitigation planning requirements. In 2016, Santa Clara County, the Santa Clara County Fire Department, and all incorporated cities in Santa Clara County teamed together to prepare an updated multi-jurisdiction hazard mitigation plan tailored to the local needs and capabilities of the Santa Clara County Operational Area. This hazard mitigation plan update identifies resources, information, and strategies for reducing risk from natural hazards, including flooding.

City of Gilroy

Storm Drainage System Master Plan (2004). The city has prepared a Storm Drainage System Master Plan (hereinafter "Storm Water Master Plan") recognizing the importance of planning, developing, and financing storm drainage system facilities to provide reliable and enhanced service for existing customers and to serve anticipated growth.

Municipal Code Chapter 27A – Water Resources Protection. The purpose of Chapter 27A is to protect the city's water resources and to provide a reliable supply of healthy and clean water, reduce the potential for flood damage, and to protect and when appropriate to enhance or restore the natural resources of streams and watersheds.

Municipal Code Chapter 27C – Municipal Storm Water Quality Protection and Discharge Control. The Gilroy Municipal Code Chapter 27C includes provisions to ensure the health, safety, and general welfare of City of Gilroy citizens, and protect and enhance the water quality of watercourses and water bodies in a manner pursuant to and consistent with the Federal Clean Water Act (33 U.S.C. 1251 et seq.) and the Porter-Cologne Water Quality Control Act (California Water Code Section 1300 et seq.) by reducing pollutants in storm

water discharges to the maximum extent practicable and by prohibiting non-storm water discharges to the storm drain system.

Municipal Code Chapter 27D – Post Construction Storm Water Pollution Prevention. The purpose of Chapter 27D of the city's municipal code is to establish minimum storm water management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing in watersheds in compliance with applicable provisions of the Federal Clean Water Act and any NPDES storm water discharge permits issued to the City of Gilroy, through the following objectives:

- Minimize increases in storm water runoff from any development in order to reduce flooding, siltation and stream bank erosion and maintain the integrity of stream channels;
- Minimize increases in nonpoint source pollution caused by storm water runoff from development which would otherwise degrade local water quality;
- Minimize the total annual volume of surface water runoff which flows from any specific site during and following development to not exceed the predevelopment hydrologic regime to the maximum extent practicable; and
- Reduce storm water runoff rates and volumes, soil erosion and nonpoint source pollution, wherever possible, through storm water management controls and to ensure that these management controls are properly maintained and pose no threat to public safety.

The above objectives are met through project-specific adoption and implementation of best management practices (BMPs) in design, construction and maintenance. These BMPs are required to be incorporated into permanent site design features, which shall remain functioning throughout the life (post-construction) of the development.

Municipal Code Chapter 27E, Floodplain Management Ordinance. The purpose of this ordinance is to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by the following provisions designed to:

- protect human life and health;
- minimize expenditure of public money for costly flood control projects;
- minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- minimize prolonged business interruptions;
- minimize damage to public facilities and utilities such as streets and bridges located in areas of special flood hazard, water and gas mains, and electric, telephone and sewer lines;

- help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future blighted areas caused by flood damage;
- ensure that potential buyers are notified that property is in an area of special flood hazard; and
- ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

Thresholds of Significance

The City of Gilroy CEQA thresholds of significance state that a project may have a significant effect on the environment if it would:

- Violate any water-quality standards or waste-discharge requirements. Any violation would be significant, including inconsistency with National Pollutant Discharge Elimination System regulations;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river in a manner that would result in substantial erosion or siltation on- or off-site, including alteration of a natural drainage, including small canyons and seasonal creeks and lack of adequate erosion control measures;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface run-off in a manner that would result in flooding on- or off-site, including any alteration of a natural drainage, including small canyons and seasonal creek, and any alteration resulting in on- or off-site flooding;
- Create or contribute run-off water, which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted run-off. Any project inconsistent with the city's Storm Water Master Plan would result in a significant effect;
- Otherwise substantially degrade water quality. Any project that is inconsistent with the city's Regional Storm Water Management Plan would result in a significant effect;
- Place housing within a 100-year flood hazard area as mapped on Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map. Any project that is inconsistent with the city's Flood Plain Management Ordinance would result in a significant effect.
- Place structures within a 100-year flood hazard area, which would impede or redirect flood flows. Any project that is inconsistent with the city's Flood Plain Management Ordinance or the Federal Emergency Management Agency regulations would result in a significant effect; and

- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. With the exception of the foothills, the entire Gilroy planning area is within one or more inundation areas for dam failure (ABAG Dam Failure Inundation Hazard Map for Gilroy, 1995). However, these dams were designed to meet special seismic design specifications and are regularly inspected and maintained by Valley Water. Therefore, the potential for the project to be inundated due to a dam failure is considered a less-than-significant impact.

Analysis, Impacts, and Mitigation

IMPACT	Diminished Water Quality from Storm Water Pollutants	Less Than Significant

Non-point sources of water pollution refer to those that are diffuse in nature and cannot be traced to a specific "end-of-pipe" location. Non-point sources of water quality pollution in urban environment would be created by development associated with buildout of the Gilroy 2040 General Plan. Future development of vacant lands consistent with Gilroy 2040 General Plan land use designations would replace some agricultural storm water pollutant sources with urban sources. Pollutants would generally consist of contaminants such as oil, grease, pesticides, fertilizer, solid waste and sediment that are deposited on impervious surfaces such as streets, parking lots, and driveways. These contaminants can be carried in storm water directly to surface water bodies or discharged via the city's storm water system to receiving waters. Construction activities are also a source of non-point contaminants such as sediment eroded from construction sites, oil, and grease. The Llagas Subbasin, which experiences high levels of nitrates, would experience a small decrease in this agricultural chemical over time due to future conversion of agricultural land to residential, mixed use, commercial, and/or industrial development.

Future development consistent with Gilroy 2040 General Plan land use designations (residential, mixed use, commercial, and industrial), would increase potential surface and groundwater quality degradation and consequently, potential violations to water quality standards could inadvertently occur. New development would increase the use of chemicals and other household, commercial and/or industrial products that contain contaminants with potential to degrade water quality. New impervious surfaces would be created resulting in increased storm water runoff that could be discharged directly to surface waters including Valley Water facilities such as Llagas Creek, Uvas Creek and Valley Water drainage channels, or to groundwater or indirectly through the city's storm water system. Storm water discharges from future development associated with buildout of the Gilroy 2040 General Plan that exceed treatment requirements of the State Water Resources Control Board and/or Central Coast water board would be a significant impact.

Non-point source pollutants are currently regulated by Gilroy Municipal Code Chapter 27C and Chapter 27D, which specifies the city's regulations for implementing storm water quality management strategies consistent with NPDES requirements. The Revised Regional Storm Water Management Plan described previously outlines all of the measures that must be implemented by the city and by future development to comply with the NPDES water quality protection requirements. Standard conditions of permit approval include requirements that discharged water meet State Water Resources Control Board and/or Central Coast water board standards.

Gilroy 2040 General Plan

The following Gilroy 2040 General Plan goals and policies address water quality issues. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs for the full policy language.

Goal PFS 1: Provide the highest level of public facilities and services feasible, consistent with the city's fiscal resources, to meet the needs of current and future residents and businesses.

- PFS 1.1 Public Facilities and Development
- PFS 1.2 Fiscal Implications of Land Use Decisions
- PFS 1.3 Capital Improvement Budget
- PFS 1.4 Priority for Infrastructure Rehabilitation or Replacement
- PFS 1.8 Partnering
- PFS 1.10 Facility and Service Funding
- PFS 1.11 Development Impact Fees

Policies PFS 1.1 through PFS 1.4 require the provision of public facilities and infrastructure, including public storm water infrastructure that are sufficient to keep pace with planned growth. Water quality protection measures to be considered as part of the development process for storm water management are included in policies PFS 1.8, PFS 1.10, and PFS 1.11.

Goal PFS 2: Operate public facilities and services in a sustainable manner that uses public revenues and resources efficiently.

- PFS 2.5 Energy Efficient Buildings and Infrastructure
- PFS 2.6 Leadership in Energy and Environmental Design (LEED)
- PFS 2.7 Technology Use

PFS 2.5 through PFS 2.7 provides direction to achieve efficient and sustainable municipal operations, which will ultimately reduce potential, significant impacts to public storm water facilities and regional water quality, include policies.

Goal PFS 3: Maintain the City's water system to meet the needs of existing and future development while improving water system efficiency.

- PFS 3.5 Water Quality

Policy PFS 3.5 requires the city to ensure the provision of healthy, safe water for all users through facilities, polices, programs, and regulations, all of which, include storm water infrastructure.

Goal PFS 5: Maintain an effective storm drainage system to accommodate runoff, prevent property damage due to flooding, and improve environmental quality.

- PFS 5.1 Storm Drain Master Plan
- PFS 5.2 Storm Collection System
- PFS 5.3 Green Infrastructure
- PFS 5.4 Stormwater Inspection

Ongoing maintenance of an effective storm drainage system to accommodate runoff through buildout conditions is addressed by policies PFS 5.1, PFS 5.2, and PFS 5.4. Measures to incorporate green infrastructure and low impact development techniques to reduce water quality impacts are included in policies PFS 5.3 and PFS 5.5.

Goal PH 1: Minimize potential for loss of life, injury, damage to property, and economic and social dislocation due to natural hazards through development controls and emergency preparedness.

- PH 1.1 Location of Future Development
- PH 1.3 Development Review

Policy PH 1.1 allows development only in areas where potential danger (such as flood risks) to the health, safety, and welfare of residents can be adequately mitigated to an acceptable level of risk. Policy PH 1.3 requires appropriate studies as part of the development review process to assess potential hazards, including risks of flooding, and to assure that potentially significant impacts are adequately mitigated.

Goal NCR 4: Maintain overall water quality by protecting surface and groundwater sources, restoring creeks and rivers to their natural state, and conserving water resources.

- NCR 4.1 Consistent Standards
- NCR 4.2 Pollution Prevention

- NCR 4.3 Drinking Water Quality
- NCR 4.4 Abandoned and Unused Wells
- NCR 4.8 Low Impact Development

Additionally, policies NCR 4.1, NCR 4.2, NCR 4.3, NCR 4.4, and NCR 4.8 include measures and requirements designed to protect and improve water quality in the city.

Conclusion

Implementation of the Gilroy 2040 General Plan goals and policies in addition to individual project compliance with the city municipal code chapters, the city's Storm Water Master Plan and Stormwater Management Guidance Manual, NPDES and other Central Coast water board requirements, ensures that future development or modifications to existing improvements consistent with the Gilroy 2040 General Plan land use designations would not violate any water quality or wastewater discharge requirements during or post-construction. Therefore, with implementation of the Gilroy 2040 General Plan, policies protecting water quality impacts from storm water pollutants would be less than significant. No mitigation is required.

IMPACT	Increased Storm Water Runoff	Less Than Significant

Future development consistent with the Gilroy 2040 General Plan land use designations would increase the amount of impervious surfaces within the Urban Growth Boundary and thus contribute new sources of runoff. Substantial areas of new impervious surfaces will be created through construction of roads, parking lots, building roofs, etc. These impervious areas will replace pervious soils that are largely in agricultural use or are fallow. As a result, the volume of storm water runoff generated by buildout conditions would substantially increase without appropriate controls. Existing storm water facilities would not be of sufficient capacity to collect or dispose of the runoff. Unless existing infrastructure is improved where needed and new storm water conveyance, discharge and disposal infrastructure is developed to keep pace with the increase in storm water runoff, localized flooding impacts are possible. Uncontrolled storm water runoff could also flow over soil surfaces, thereby resulting in increased erosion and siltation of downstream water bodies, such as Uvas Creek, Llagas Creek, or Pajaro River. Under buildout conditions proposed in the Gilroy 2040 General Plan, an increase in storm water runoff volume and inadequate storm water drainage facilities that does not keep pace with development in the Urban Growth Boundary could lead to flooding, erosion, and/or alterations of a natural drainage. This would be considered a significant adverse environmental impact.

Gilroy 2040 General Plan

The following Gilroy 2040 General Plan goals and policies address storm water drainage infrastructure capacity and secondary flooding impacts. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs for the full policy language.

Goal PFS 5. Maintain an effective storm drainage system to accommodate runoff, prevent property damage due to flooding, and improve environmental quality.

- PFS 5.1 Storm Drain Master Plan
- PFS 5.2 Storm Collection System
- PFS 5.3 Green Infrastructure
- PFS 5.5 Rainwater Harvesting

Policies PFS 5.1 and PFS 5.2 require maintenance of an effective municipal storm drainage system to accommodate runoff which may result in flooding. Policies PFS 5.3 and PFS 5.5 require new development or modifications to existing improvements to incorporate green infrastructure and low impact development techniques to reduce storm water runoff which may result in flooding within and downstream from the Urban Growth Boundary.

Conclusion

Implementation of Gilroy 2040 General Plan goals and policies in addition to project-specific compliance with the city's Storm Water Master Plan and Stormwater Management Guidance Manual , as periodically updated, assures that existing and future municipal and down-stream storm water facilities have sufficient capacity to collect and convey storm water that could result in flooding. Compliance with city and State Water Resource Control Board detention or retention requirements, in combination with applicable Valley Water requirements for development adjacent to Valley Water facilities, ensures that storm water facilities within and downstream of the Urban Growth Boundary would be adequate to transport storm water runoff from the proposed project during 100-year storm events. Future development within the Urban Growth Boundary would be required to demonstrate compliance during construction and post-construction with applicable Central Coast water board requirements, applicable Valley Water channel improvement requirements, and municipal code requirements that mitigate increases in impervious surfaces that could lead to flooding or exceed the capacity of storm water facilities. Therefore, compliance with these policies and related regulations would ensure potentially significant flood impacts from development are less than significant. No mitigation is required.

IMPACT	Expose People to Flooding Risks by Placing Housing or Structures Within a 100-Year Flood Hazard Area	Less Than Significant

Implementation of the proposed Gilroy 2040 General Plan could result in significant impacts from exposing people to flood risks and from impeding flood flows if future development within the boundaries of 100-year flood hazard zones is not managed consistent with regulations and policies designed to protect against such hazards. As illustrated previously in Figure 3.9-1, Flood Risk Areas, the Urban Growth Boundary includes areas that are located within the 100-year FEMA floodplains. The Open Space land use designation is applied to areas where urban development is either inappropriate or undesirable. Specifically, it is intended to preserve and protect lands that are considered environmentally unsuitable for development, including areas with high water tables, natural resource areas such as the Uvas Creek and Llagas Creek corridors and the southwestern foothills, and hazardous areas such as fault zones and floodways. While some limited activities and structures may be allowed, these are subject to site-specific environmental review and must be limited in scope to ensure preservation of natural resources and protection of public health and safety.

A comparison of Figure 3.9-1 with the Urban Growth Boundary in the Gilroy 2040 General Plan Land Use Diagram - Preferred Alternative (Figure 2.2-1) reveals that, for the most part, the Gilroy 2040 General Plan places Open Space land uses in proximity to creeks and other drainage channels. However, the following areas within the Urban Growth Boundary are located within the 100-year flood plain:

- General Industrial, Employment Center, and Public/Quasi-Public Facilities land use designations (adjacent to and the east of U.S. Highway 101); and
- Park and Recreation south of Luchessa Avenue.

Each of these land use designations would allow the placement of people and structures in flood zones A, AE, or AH. All three flood zone areas are considered by FEMA to have a high risk of flooding; however, flood zone A is the highest risk designation area.

Lands designated as Public/Quasi-Public Facilities near the southern extent of the Urban Growth Boundary are located within flood zone A. Under buildout of the Gilroy 2040 General Plan, new development placed in 100-year flood hazard areas within the Urban Growth Boundary could potentially expose people and properties within and downstream of the Urban Growth Boundary to flood hazards, if not managed appropriately. In addition, future development within the Urban Growth Boundary could impede or redirect flood waters which will also expose people and properties to flood hazards. This would be a significant impact.

Gilroy 2040 General Plan

The following Gilroy 2040 General Plan goals and policies address flood risks and potentially significant impacts of placing development within flood-prone areas or redirecting flood flows that could affect existing and new development within the Urban Growth Boundary, and downstream facilities. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs for the full policy language.

Goal LU 6. Support agricultural uses in and around Gilroy that have and will continue to influence Gilroy's identity and economy.

- LU 6.4 Agricultural Uses in Hazard Areas.

Land use policy 6.4 encourages areas subject to natural hazards such as major flooding to establish or continue long-term agricultural productions.

Goal PH 1. Minimize potential for loss of life, injury, damage to property, and economic and social dislocation due to natural hazards through development controls and emergency preparedness.

- PH 1.3 Development Review

Policies PH 1.3 requires appropriate studies as part of the development review process to assess potential hazards and assure that potentially significant impacts are adequately mitigated.

Goal PH 3. Protect life and minimize property damage from potential flood hazards.

- PH 3.1 Development Restrictions in Flood Areas
- PH 3.4 Multiple Use of Flood Control Projects
- PH 3.7 Erosion Control in Hillside Areas
- PH 3.8 FEMA Coordination

Policies PH 3.1 and PH 3.7 require new development in areas prone to flooding to incorporate uniform enforceable measures to reduce losses due to flood related hazards to an acceptable level of risk. Policies PH 3.4 and PH 3.8 set forth guidelines for the city to coordinate with multiple agencies in order to efficiently prepare for potential flood events.

Goal NCR 1. Preserve and enhance Gilroy's natural resources for current and future residents.

- NCR 1.2 Stream Protection
- NCR 1.3 Riparian Setbacks

Policy NCR 1.2 calls for protection of the ecological, aesthetic, and recreational value of the streams that flow through the Gilroy Planning Area. This policy also requires areas required for riparian setbacks to be dedicated to Valley Water in fee or easement, or incorporated into private open space to be preserved and maintained by future development projects. Policy NCR 1.3 requires riparian setback areas in new development, consistent with the requirements of the Habitat Plan and other city regulations.

All future development within the city that is located within a flood hazard area is subject to compliance with several existing city regulations and the general plan policies identified above, which mitigate flooding hazards. In addition, compliance with the city's municipal code Chapter 27A, which contains guidelines and performance standards, ensures that new development does not create flood impacts. Future site-specific projects would be conditioned to be consistent within the city's Flood Plain Management Ordinance during the approval process for each proposed development in the Urban Growth Boundary. These regulations are designed to specifically implement the flood hazard policies noted above.

Conclusion

Implementation of the Gilroy 2040 General Plan policies and programs discussed above and compliance with Regional Water Quality Control Board storm water infiltration requirements and Valley Water requirements for channel improvements, and Gilroy Municipal Code ensures that potential flood hazards within and downstream of the Urban Growth Boundary would be prevented and/or minimized. Therefore, the potential to expose people or structures to significant flooding risks within a 100-year flood hazard area would be considered a less-than-significant impact. No mitigation is required.

IMPACT	Expose People or Structures to Hazards from Flooding as a Result of Dam Failure	Less Than Significant

With the exception of the foothills, the entire Gilroy 2040 General Plan Planning Area/Sphere of Influence is within one or more inundation areas for dam failure from the Uvas Dam, Chesbro Dam, or Anderson Dam (refer to Figure 3.9-2, Dam Failure Inundation Area). However, these dams were designed to meet special seismic design specifications and are regularly inspected and maintained by Valley Water. Furthermore, the USACE is responsible for conducting regular inspections of the dams. Through its inspection processes, the USACE would identify and communicate any risk of dam failure well in advance of any potential event that could trigger a potential failure. In addition, Valley Water has initiated the Anderson Dam Seismic Retrofit Project to complete the planning, design, and construction of the seismic retrofit of the dam. Seismic retrofit of Anderson Dam is currently in the design phase. Completion of the design, obtaining all regulatory approval and acquisition of permits will be completed before construction commences, currently planned for 2021 (Valley Water 2020).

Conclusion

The overall risk of dam failure from the Uvas Dam, Chesbro Dam, or Anderson Dam is low. Therefore, risks to future development within the proposed Urban Growth Boundary would likewise be low, and the impact would be less than significant. No mitigation is required.

3.10 GROUNDWATER

This section addresses the project's potential environmental impacts associated with groundwater supply. Unless otherwise noted, the information contained within this section is largely based on the *Gilroy 2040 General Plan Background Report (*Mintier Harnish 2014), the *2015 City of Gilroy Urban Water Management Plan* (AKEL Engineering Group 2016), *2015 Santa Clara Valley Water District Urban Water Management Plan* (Santa Clara Valley Water District 2016a) and the *2016 Santa Clara Valley Water District Groundwater Management Plan* (Santa Clara Valley Water District 2016b).

The background report is available on the city's website at http://www.gilroy2040.com/documents/. Related water supply and delivery services infrastructure issues are discussed in Section 3.18, Water Service. Additional discussion of storm water, drainage and runoff, water quality, and flooding is contained in Section 3.9, Storm Water and Flooding.

Comments related to groundwater issues were received during the NOP comment period from Save Open Space – Gilroy (2015).

Environmental Setting

Groundwater Basin

Llagas Subbasin. Potable water sources within south Santa Clara County are groundwater and local and regional recycled water sources. Groundwater supplies are replenished by imported water sources, water stored in local reservoirs, and from stormwater runoff from local rainfall events. The groundwater basins of the Santa Clara Valley lie in an alluvial trough between the Santa Cruz Mountains on the west and the Diablo Mountain range to the east. The City of Gilroy is in the Llagas Subbasin of the Gilroy-Hollister Groundwater Basin. Domestic water supply in Gilroy is provided through groundwater extraction from nine wells (City of Gilroy 2018).

The Llagas Subbasin occupies a northwest trending structural depression. The Llagas Subbasin has a surface area of about 87 square miles, and is about 15 miles long, three miles wide at its northern boundary, and six miles wide at its southern boundary. The subbasin extends from the groundwater divide at Cochrane Road near the city of Morgan Hill in the north to the Pajaro River in the south. It is interconnected with the Santa Clara Valley and Coyote Valley subbasins to the north, and is divided into three hydrographic units: the northern part and its elevated lateral edges constitute the forebay, and its southern flat interior part is divided into upper and lower aquifer zones. The Llagas Sub-basin is comprised of confined areas with clay layers that impede infiltration and water movement,

and recharge areas, in which groundwater can move relatively freely within the soil. Groundwater usage in the southern Santa Clara Valley is generally found in unconfined conditions, however, due to deep Lacustrine clay deposits, wells around 500 feet do experience confined aquifer conditions. Figure 3.10-1, Llagas Subbasin, shows the Llagas Subbasin in relation to the City of Gilroy 2040 Planning Area/Sphere of Influence and the Urban Growth Boundary.

Storage Capacity. Valley Water also stores water supply banked underground at Semitropic Water Storage District near Bakersfield. According to Valley Water's 2017 Annual Groundwater Report, end of year groundwater storage of more than 300,000 acre-feet falls within the normal stage (Stage 1) of Valley Water's Water Shortage Contingency Plan, indicating good water supply conditions. Valley Water's Semitropic groundwater bank reserves were at 100 percent of capacity, or 349,970 acre-feet as of December 31, 2019 (Valley Water 2020).

Valley Water estimated the operational storage capacity of the Llagas Subbasin to be 150,000 acre-feet (Santa Clara Valley Water District 2016). Historical water levels were at their lowest during the 1977 drought year, while the highest water levels were experienced during the El Nino year of 1998. According to Valley Water's February 2020 groundwater report, the groundwater level in the Llagas Subbasin (San Martin) index well is about eight feet higher than January 2019 and about 13 feet higher than the five-year average. The January 2020 managed recharge estimate is 1,300 acre-feet, which is 130 percent of the five-year average. Compared to the January averages of the last five years (2015-2019), the estimated January 2020 managed recharge is higher for the Santa Clara Plain, the Coyote Valley, and the Llagas Subbasin.

Groundwater overdraft conditions occur when more water than supply is withdrawn from the source aquifer. The State Department of Water Resources has not identified the subbasin as in overdraft or projected to be in overdraft, according to the Valley Water 2015 Urban Water Management Plan.

In consecutive dry years, imported water, which is utilized to replenish Llagas Subbasin, has experienced cutbacks due to regulatory and environmental constraints in the Delta. In addition, Valley Water is projecting that climate change will provide a negative impact to the Sierra snowpack, further reducing the reliability of imported water.

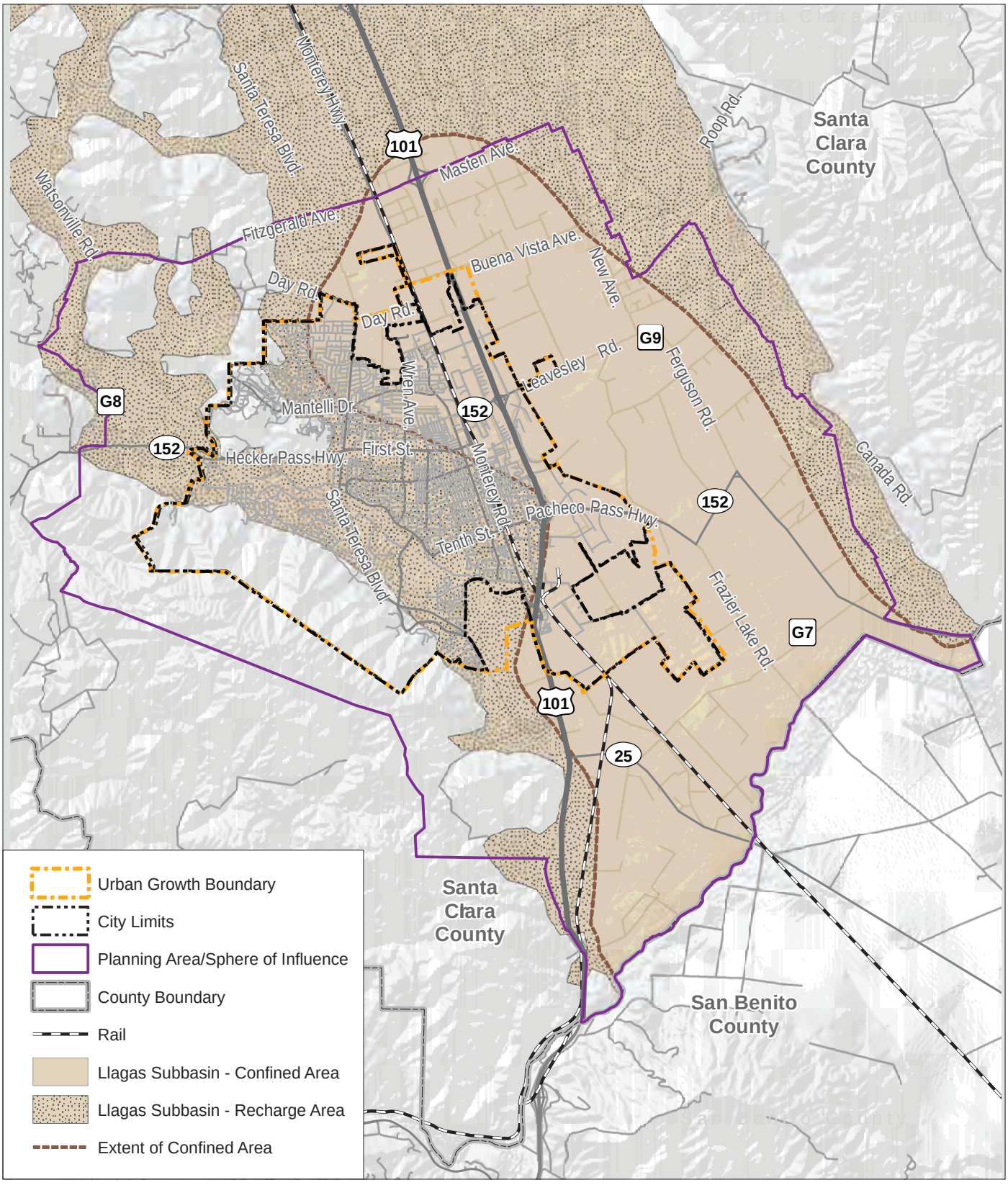
Over-drafting the subbasin could alter the hydraulic gradient and thus result in significant adverse impacts to water quality, particularly in the Gilroy area. Therefore, it is important that new developments, to the extent practicable, use recycled water to mitigate new water demand. Installing recycled water facilities in new development is also a cost-effective way of maximizing use of recycled water because the retrofit cost is avoided. Additionally, Valley Water encourages new developments to implement available water conservation measures to reduce indoor and outdoor use. The city's 2015 Urban Water Management Plan and the Valley Water 2015 Urban Water Management Plan include detailed discussions on

the groundwater basin and on the collaborative efforts underway to manage the groundwater supplies. These plans are described in more detail under the discussion of Regulatory Setting later in this section.

Groundwater Recharge. Gilroy's groundwater supply is dependent on natural recharge from surface water runoff as well as additional recharge provided by Valley Water through raw water imports. Valley Water imports raw water through the State Water Project and federal Central Valley Project for the purpose of recharging the groundwater subbasins they manage, which includes the Llagas subbasin. However, for the first time in its 54-year history, the State Water Project provided no water to urban residents or farmers in 2014 because of historic drought conditions. The response to the 2012 to 2015 drought illustrates how Valley Water, municipalities, county, and retailers coordinate to reduce water use during water shortages. On February 25, 2014, the Valley Water Board of Directors approved a resolution setting a countywide water use reduction target equal to 20 percent of 2013 water use through December 31, 2014, and recommended that retail water agencies, local municipalities and the County implement mandatory measures as needed to achieve the 20 percent water use reduction target. On March 24, 2015, the board called for 30 percent water use reductions, and that retail water agencies, municipalities and the County implement mandatory measures as needed to accomplish that target including a two day a week outdoor irrigation schedule. By 2017, statewide and local conditions had improved significantly. However, the Valley Water Board of Directors emphasized that dry conditions could return, and the community's water savings achievements should be continued. A new resolution was approved in 2017 that called for a continued 20 percent reduction in water use from the 2013 water use. This resolution dropped the mandatory language from the prior call for retail water agencies, local municipalities and the County of Santa Clara to implement mandatory measures to achieve the 20 percent water use reduction target (Santa Clara Valley Water District 2017).

Existing Groundwater Water Demand. Demand for groundwater from the Llagas Subbasin is comprised of City of Gilroy groundwater pumping, City of Morgan Hill groundwater pumping, and other non-agricultural and agricultural groundwater pumping. In 2017, groundwater pumping from the Llagas Subbasin was estimated at approximately 41,100 acre-feet per year, consisting of about 16,900 acre-feet for the two municipalities, 23,000 acre-feet for agriculture, and 12,000 acre-feet for individual wells. In 2015, groundwater pumping for the City of Gilroy was approximately 6,871 acre-feet per year (AKEL Engineering 2016).

Rainfall. Annual precipitation in the region ranges from less than 16 inches in the south to more than 24 inches in the north. The majority of rainfall in the region occurs, on average, during the months of October through April. Valley Water maintains precipitation gage information for several watersheds throughout Santa Clara County, including the Pajaro River Watershed, which has six monitoring sites. Rainfall in Gilroy for 2017 reflected low totals in keeping with the drought conditions of much of the region, with the monthly



Source: City of Gilroy 2018, Santa Clara Valley Water District 2011, Esri 2015

Figure 3.10-1

Llagas Subbasin

Gilroy 2040 General Plan EIR

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average rainfall of 0.20 inches. Data collected by the University of California Cooperative Extension indicates that rainfall has been increasing since 2017 when it started at 0.20 average monthly inches increasing to 1.96 inches in 2019.

Drinking Water. The City of Gilroy provides potable water service to its residential, commercial, industrial, and institutional customers within the city limits. The city's potable water supply is provided by a series of groundwater wells, supplemented by recycled water and storage reservoirs. The city operates reservoirs throughout the city, as well as being served by reservoirs owned and operated by the SCWVD. Groundwater is the primary source of domestic water supply. Local rainfall and runoff flow into reservoirs for storage and blending with imported water, managed by Valley Water. The City of Gilroy pays a groundwater extraction fee to Valley Water, which is the major water wholesaler for municipal users within Santa Clara County. City wells are operated based on system demands taking into account reservoir levels, peak demands, and fire flows. Wells pump water directly into the distribution system and water that is not used is used to fill reservoirs. Water pumped from the groundwater aquifer through wells is used by private well owners, farmers, and water retailers.

Water Conservation Efforts and Recycled Water. In 1977, Valley Water, Gilroy, and Gavilan Water Conservation District embarked on a partnership to construct and operate a recycled water system extending from the SCRWA Wastewater Treatment Plant in southeast Gilroy to customers in the city of Gilroy. In 1999, a joint partnership between SCRWA, Valley Water, and the cities of Morgan Hill and Gilroy sought to develop a recycled water system that would enhance the wastewater treatment plant and the recycled water distribution system. Under this agreement, SCRWA would serve as the provider, Valley Water as the wholesaler, and Gilroy as a retailer. This agreement would serve as a benchmark to expand the recycled water system, and set future goals for further expansion. The types of recycled water use identified as part of the Gilroy 2015 Urban Water Management Plan include landscape irrigation, commercial/industrial users, and agriculture irrigation (AKEL 2016).

Conservation. The Gilroy 2015 Urban Water Management Plan includes large landscape, commercial, industrial, and institutional conservation programs and incentives. The plan establishes guidelines for implementing a water shortage contingency plan, and defined stages of mandatory supply reductions in the event of a major loss in supply, such as a sustained drought. Currently, the city has a four-stage water rationing plan in place to adjust water use with shortage conditions. The stages are based on reduction methods aimed to coincide with water shortage scenarios. In the event a water shortage should occur, combinations of voluntary and mandatory restrictions on water use are planned to be used.

On May 18, 2015, the City Council approved a resolution declaring that Level 2 Water Supply Shortage Conditions exist and adopted an emergency ordinance making modifications to Chapter 27 of the Gilroy City Code, Article VI, "Water Supply Shortage

Regulations" to comply with new state regulations and gubernatorial executive orders, and to establish consistency with other Santa Clara County water purveyors' drought regulations.

A Level 2 Water Supply Shortage entails the following water use reduction measures: limit on landscape irrigation to two days per week during summer and one day per week during winter, limits on filling ponds, swimming pools, and hot tubs, and prohibition on washing vehicles other than at facilities with re-circulated water. If a Level 3 Water Supply Shortage – Emergency Condition were declared, water reductions up to 50 percent would be required, and among other measures, new water service connections and building permits could be limited, and annexations would be suspended. Two additional state water reduction efforts are currently in effect in Gilroy, SB 606 and AB 1668, which establish guidelines for efficient water use and a framework for the implementation and oversight of new standards, which must be in place by 2022.

Recycled Water. Along with Morgan Hill, the city operates water recycling facilities as part of the South County Recycled Water Authority and has several improvement projects in the planning and design phase for such facilities, including pipeline improvements and capacity expansion. The South County Recycled Water Master Plan is the result of the Water and water authority effort to facilitate the expansion of recycled water use for jurisdictions including Gilroy, which will affect conservation practices and incentives. The South County Recycled Water System, constructed in 1977. According to the 2015 South County Recycled Water Master Plan, the SCRWA Waste Water Treatment Plant a permitted capacity amount of 8.5 million gallons or 30.35 acre-feet per day available for recycled water use. Recycled water use in Gilroy in 2015 was approximately 2,021 acre-feet per year (AKEL 2015).

Regulatory Setting

Federal

Clean Water Act. The federal Clean Water Act was established "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Water quality objectives for all waters in the State of California are established under applicable provisions of Section 303 of the federal Clean Water Act and the state Porter-Cologne Water Quality Control Act. The State Water Resources Control Board and the Central Coast Regional Water Quality Control Board are responsible for assuring implementation and compliance with the provisions of Clean Water Act and the Porter-Cologne Water Quality Control Act.

State

Executive Order B-29-15 and B-40-17. According to the Department of Water Resources, 2013 was the driest year in recorded history for many areas of California. On January 17, 2014, Governor Edmund G. Brown, Jr. declared a drought state of emergency (Executive Order B-21-13) and directed State officials to take necessary actions. The Department of Water Resources reported that the snow surveys of 2015 revealed a continuation of California's precipitation deficit during the state's fourth consecutive dry water year. In

response to continued severe drought conditions the Governor signed Executive Order B-29-15 directing the State Water Resources Control Board to implement mandatory water reductions in cities and towns across California to reduce water usage by 25 percent. The order also required the replacement of 50 million square feet of lawns throughout the state with drought tolerant landscaping in partnership with local governments, directs the creation of a temporary, statewide consumer rebate program to replace old appliances with more water and energy efficient models, required campuses, golf courses, cemeteries and other large landscapes to make significant cuts in water use, prohibited new homes and developments from irrigating with potable water unless water-efficient drip irrigation systems are used, and bans watering of ornamental grass on public street medians. The order also called on local water agencies to adjust their rate structures to implement conservation pricing, recognized as an effective way to realize water reductions and discourage water waste, and provides new reporting procedures and standards for agricultural water districts.

Executive Order B-40-17 (2017) lifted the drought emergency in California counties except Fresno, Kings, Tulare and Tuolumne counties, but retained the prohibition on wasteful practices and advanced measures to make conservation a way of life.

The Water Conservation Act of 2009. The Water Conservation Act of 2009 (or SBX7-7) mandates water conservation targets and efficiency improvements for urban and agricultural water suppliers, with a goal of 20 percent reductions by 2020. The law requires the development of agricultural water management plans, and modifies the requirements for urban water management plans. The state implemented water reduction strategies in the 2013 Green Buildings Standards, which were adopted by the city in January, 2014. The Green Building standards implement measures to reduce water consumption by 20 percent in new construction, consistent with the Water Conservation Act of 2009 (refer also to Section 3.9, Storm Water and Flooding). Executive Order B-29-15 was issued on April 1, 2015, requiring temporary statewide conservation measures to reduce urban water use statewide by 25 percent compared to 2013 use through February 2016. The Executive Order B-29-15 reduction target for Gilroy was 24 percent (California Water Resources Control Board 2015).

Sustainable Groundwater Act of 2014. This act provides a framework for sustainable management of groundwater supplies by local authorities, with a limited role for state intervention, if necessary, to protect the resource. The act requires the formation of local groundwater sustainability agencies that must assess conditions in their local water basins and adopt locally-based management plans. The act provides a 20-year timeframe for achievement of long-term groundwater sustainability. The Department of Water Resources is currently taking the initial steps in developing implementation guidance. Local groundwater sustainability agencies must be established by June 2017. The Department of Water Resources has ranked the Llagas Sub-basin as a high priority basin under the act, noting that nitrate has impacted a significant number of private domestic wells due to

historic and ongoing agricultural activities and septic systems, and that perchlorate is also a problem (California Department of Water Resources 2014).

California Senate Bill 610 (SB 610) and Senate Bill 221 (SB 221). Senate Bill 610 (SB 610) and Senate Bill 221 (SB 221) amended state law to better coordinate local water supply and land use decisions, and ensure adequate water supply for new development. SB 610 specifically requires that all public water systems providing water for municipal purposes to more than 3,000 customers, or supplying more than 3,000 acre-feet annually, must prepare and update an Urban Water Management Plan (water management plan) every five years. The water management plan is required to include information relating to the quantity of existing sources of water available to an urban water supplier over given time periods and the manner in which water quantity affects water management strategies and supply. This information includes, but is not limited to, the historic, current, and future reliability of the supply source and quality of the water source. A plan for what actions would be taken if the quantity or quality of water deteriorates is also required. Additional and supplemental sources of water must also be included in the water management plan. A complete water management plan can be a foundational document and source of information for SB 610 Water Supply Assessments and SB 221 Written Verifications of Water Supply.

Under SB 610, water assessments must be furnished to local governments for inclusion in environmental documentation for specific types of projects as defined in Water Code 10912 [a]), and described in CEQA Guidelines Section 15155. Under SB 221, approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply.

Assembly Bill (AB) 1668 and Senate Bill (SB) 606. Adopted May 31, 2018, these bills build on ongoing efforts to make water conservation a way of life in California and create a new foundation for long-term improvements in water conservation and drought planning. SB 606 and AB 1668 establish guidelines for efficient water use and a framework for the implementation and oversight of the new standards, which must be in place by 2022. The two bills strengthen the state's water resiliency in the face of future droughts with provisions that include:

- Establishing water use objectives and long-term standards for efficient water use that apply to urban retail water suppliers, comprised of indoor residential water use, outdoor residential water use, commercial, industrial and institutional (CII) irrigation with dedicated meters, water loss, and other unique local uses;
- Providing incentives for water suppliers to recycle water;
- Identifying small water suppliers and rural communities that may be at risk of drought and water shortage vulnerability and provide recommendations for drought planning; and

- Requiring both urban and agricultural water suppliers to set annual water budgets and prepare for drought.

Regional

Central Coast Regional Water Quality Control Board, Hydromodification Control and Low Impact Development. Under Resolution No. R3-2013-0032, post-construction requirements for hydromodification control and low impact development techniques have been established for projects under the jurisdiction of the Central Coast water board. These requirements (discussed in more detail in Section 3.9, Storm Water and Flooding) are intended to provide "at-the-source" solutions to reduce the effects of development on watersheds and encourage runoff from watersheds to mimic pre-development conditions. The Central Coast water board requirements focus on infiltration as the primary means to treat runoff from smaller storms for water quality purposes and decrease the amount of runoff to protect water courses from erosion. Storm water infiltration requirements also reduce the surface area that could otherwise be developed with impervious surfaces and thus, contributes to groundwater recharge.

South County Recycled Water Master Plan Update (2015). The 2015 South County Recycled Water Master Plan Update presents a strategy for expanding use of recycled water in South Santa Clara County over a 20-year planning horizon. In order to facilitate the expansion of recycled water use in south Santa Clara County, Valley Water and SCRWA partnered to update this master plan to meet long-term water supply and wastewater needs in south Santa Clara County, specifically in and near the cities of Gilroy and Morgan Hill. The Recycled Water Master Plan studied a range of recycled water system expansion alternatives.

Valley Water Urban Water Management Plan (2015). Valley Water manages an integrated water resources system that includes the supply of clean water, flood protection, and stewardship of streams within Santa Clara County. In addition to its surface water and water quality treatment responsibilities (refer to Section 3.9, Storm Water and Flooding), Valley Water manages nearly 400 acres of groundwater recharge ponds. Valley Water provides wholesale water and groundwater management services to local municipalities and private water retailers who deliver drinking water directly to homes and businesses in Santa Clara County. Valley Water also offers water conservation information and incentives, but does not directly enforce water conservation regulations.

This plan is intended to meet the requirements of the California Urban Water Management Planning Act, as well as the Water Conservation Act of 2009, and to present important information on water supply, water usage, recycled water and water use efficiency programs in Santa Clara County. It also serves as a valuable resource for securing and sustaining the water supply future for Santa Clara County through 2040.

Valley Water and local partners have implemented numerous programs to protect groundwater resources and Valley Water has established comprehensive monitoring

programs related to groundwater levels, land subsidence, groundwater quality, recharge water quality, and surface water flow. In addition, Valley Water has developed the following outcome measures to gauge performance in meeting the basin management objectives:

- Projected end of year groundwater storage is greater than 278,000 acre-feet in the Santa Clara Plain, 5,000 acre-feet in Coyote Valley, and 17,000 acre-feet in the Llagas Subbasin;
- Groundwater levels are above subsidence thresholds at the subsidence index wells;
- At least 95 percent of countywide water supply wells meet primary drinking water standards and at least 90 percent of South County wells meet Basin Plan agricultural objectives; and
- At least 90 percent of wells in both the shallow and principal aquifer zones have stable or decreasing concentrations of nitrate, chloride, and total dissolved solids (TDS).

Valley Water Water Supply and Infrastructure Master Plan (2012). The purpose of this plan is to ensure a sustainable source of clean water supply and identifies strategies to meet Santa Clara County's future water supply needs through 2035 (Santa Clara Valley Water District 2012b).

Valley Water Groundwater Management Plan (2016). This 2016 plan describes Valley Water's comprehensive groundwater management framework, including existing and potential actions to achieve basin sustainability goals and ensure continued sustainable groundwater management. The plan covers the Santa Clara and Llagas subbasins, located entirely in Santa Clara County and satisfies the objectives of the Sustainable Groundwater Management Act (SGMA). The groundwater management plan includes groundwater supply management programs that replenish the groundwater basin, sustain the basin's water supplies, help to mitigate groundwater overdraft, and sustain storage reserves for use during dry periods. The plan also includes groundwater monitoring programs that provide data to assist Valley Water in evaluating and managing the groundwater basin.

Valley Water Water Supply Master Plan 2040 (2019). This master plan looks ahead at water needs and how water supply may change over the next 20 years. Valley Water's Ensure Sustainability water supply strategy focuses on investments that secure existing water supplies, expand water conservation and reuse, and optimize water infrastructure systems. Valley Water is committed to working with the community to meet Silicon Valley's future increases in water demand through conservation, water reuse, and other drought resilient strategies. Stakeholders all agree that 1) water supply reliability is important, 2) water conservation, water reuse, and storm water capture should be maximized, and 3) water rates should be kept affordable. Based on stakeholder input, technical analyses, and the climate of uncertainty, the Ensure Sustainability strategy provides a framework for balancing multiple needs and interests while making effective and efficient investment decisions.

The master plan's annual monitoring and assessment program provides a mechanism for adapting to changing supply and demand conditions, climate change, regulatory and policy changes, other risks, and uncertainty. Through regular monitoring of specific projects and overall conditions, Valley Water will assess whether changes to the Master Plan strategy or projects are needed.

Alternative projects will be evaluated based on their impacts to the water supply reliability, costs, relationships with other projects, risks and opportunities, and stakeholder input. Any changes to the master plan will be reflected in the annual water rate-setting process, capital improvement program, and budget.

South County Regional Wastewater Authority. SCRWA is a joint powers authority established to manage the treatment of wastewater for the cities of Gilroy and Morgan Hill. In partnership with Valley Water, the wastewater authority also operates a recycled water facility co-located at the treatment plant site. The wastewater authority plant was built in 1990 and is a model of energy efficiency and cost-effective operation. The plant uses state-of-the-art, fully automated, high-efficiency equipment to save costs and resources. The wastewater authority reliably meets the steadily increasing demand for recycled water to irrigate local parks, golf courses, sports complex, landscape medians, agricultural and industrial uses. The plant's remaining effluent is disposed of in percolation ponds. The ponds allow the water to soak into the soil and eventually add water to the underground aquifer. This is different from many other treatment plants in the Bay Area that discharge effluent directly to the Bay. Discharge to ponds requires a more stringent level of treatment than is required for Bay discharge. The wastewater authority produces a superior grade of effluent that consistently meets all state and federal regulatory requirements. The wastewater treatment plant has been the recipient of numerous awards in California for excellent facilities and operations.

City of Gilroy

Urban Water Management Plan (2015). Gilroy's 2015 Urban Water Management Plan addresses the requirements of the Urban Water Management Planning Act, as well as the Water Conservation Act of 2009, and includes the following elements: existing and future water demand projections, baseline and target gallon per day per capita water use factors, existing water supply facilities, groundwater basin condition, water demand management measures, and a water shortage contingency plan.

Water System Master Plan (2004). The city's 2004 Water System Master Plan (Carollo Engineer 2004c) presents historical and projected water demands through 2030, identifies existing and future water system capacity deficiencies, recommends projects to correct these deficiencies, and identifies major water facilities for servicing future developments. These facilities include transmission mains, storage reservoirs, and supply wells. The City of Gilroy plans to update the water master plan after adoption of the 2040 General Plan.

Gilroy Municipal Code and Water Conservation Ordinance. The city's Water Conservation Ordinance allows Gilroy to impose mandatory water reductions on water customers during drought conditions. The ordinance establishes three conservation levels, and Gilroy is under Level II reduction requirements as of the date of this EIR. The Consolidated Landscape Ordinance requires predominant use of drought-tolerant plantings. The Gilroy Municipal Code includes several articles addressing the provision of water supply and conservation. Chapter 27 Article III provides requirements for installation of water infrastructure. Chapter 27 Article IV establishes daily water allocations for commercial users. Chapter 27 Article VI establishes voluntary and mandatory water conservation programs. Municipal Code Section 30.38.50 establishes requirements for water conservation in landscaping.

Thresholds of Significance

The City of Gilroy CEQA thresholds of significance state that a project may have a significant effect on the environment if it would:

- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level, e.g., would the production rate of preexisting nearby wells drop to a level which would not support existing land uses or planned uses for which permits have been granted.
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed. A potentially significant would occur if a project were inconsistent with city's Water System Master Plan or Urban Water Management Plan.

Analysis, Impacts, and Mitigation

IMPACT	Deplete Groundwater Supplies	Less Than Significant

Buildout of the Gilroy 2040 General Plan would increase population and increase demand for potable water, which would lead to increased groundwater extractions from the Llagas Subbasin. According to Valley Water's 2017 Annual Groundwater Report, end of year groundwater storage of more than 300,000 acre-feet falls within the normal stage (Stage 1) of Valley Water's Water Shortage Contingency Plan, indicating good water supply conditions. Valley Water's Semitropic groundwater bank reserves were at 100 percent of capacity, or 349,970 acre-feet as of December 31, 2019 (Valley Water 2020). Valley Water's groundwater master plan outcome measure 5.4.1, Groundwater Storage, calls for maintaining greater than 17,000 acre-feet capacity in the Llagas Subbasin. According to the February 2020 groundwater report, the groundwater level in the Llagas Subbasin (San Martin) index well is about eight feet higher than January 2019 and about 13 feet higher than the five-year average. The January 2020 managed recharge estimate is 1,300 acre-feet, which is 130

percent of the five-year average. Compared to the January averages of the last five years (2015-2019), the estimated January 2020 managed recharge is higher for the Santa Clara Plain, the Coyote Valley, and the Llagas Subbasin. Valley Water continues to implement the comprehensive conjunctive management, groundwater monitoring, and groundwater protection programs described in the 2015 groundwater management plan. As a result, conditions in the Santa Clara and Llagas subbasins remained sustainable and groundwater levels and storage in the two subbasins have recovered to pre-drought conditions due to proactive drought response, improved water supplies, and significant recharge.

Both Gilroy' and Valley Water's respective urban water management plans (2015) utilize water demand projections that meet the requirements of the Water Conservation Act of 2009. Valley Water recommends that new residential and commercial developments incorporate baseline water conservation measures, as well as enhanced conservation as identified in its urban water management plan to the maximum extent practicable. This includes water-saving measures and the most current water conserving technologies/practices available. Valley Water also recommends that water conservation measures be employed both indoors and outdoors to the maximum extent practicable.

According to the Gilroy 2015 Urban Water Management Plan the projected total reliable water supply for normal years is 16,840 million gallons or approximately 51,679 acre-feet per year. The available supply to Gilroy during the various hydrologic water years is assumed to be equal to the estimated rate of natural groundwater recharge, recycled water consumption for users in Gilroy, and the raw and surface water deliveries managed and negotiated by Valley Water. The demand was projected to be 3,837 million gallons or approximately 11,775 acre-feet per year. As shown in Tables 7-2, 7-3, and 7-4 of the Urban Water Management Plan, supply is projected to exceed demand in normal, single dry year, and multiple dry years through 2040. Implementation of the Gilroy 2040 General Plan may increase water demand for new and existing development within the Urban Growth Boundary, but not beyond the demand identified in the city's 2015 Urban Water Management Plan, as the Urban Growth Boundary was significantly reduced by the 2016 Urban Growth Boundary Initiative. To calculate the projected potable water demand through the Urban Water Management Plan planning horizon of 2040, the city's 2020 urban water use target of 133 gallons per capita per day was applied to the projected population set forth in the Draft 2016 General Plan Update of 95,105. The revised Urban Growth Boundary in the General Plan Update reduced the projected 2040 population of approximately 75,684. With a per capita coefficient of 133 gallons per capita per day, the projected demand in 2040 would be approximately 10.1 million gallons per day or approximately 3,687 million gallons per year (11,425 acre-feet per year). Therefore, any increase in water demand resulting from buildout of the 2040 General Plan would be less than that identified in the 2015 Urban Water Master Plan.

Gilroy 2040 General Plan

The following Gilroy 2040 General Plan goals and policies address groundwater management through phased growth, mandatory water conservation measures, water reclamation, and other policies and programs intended to avoid or reduce impacts of population growth and development to the availability of groundwater. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Program for the full policy language.

Goal LU 1: Protect and enhance Gilroy's quality of life and unique identity while continuing to grow and change.

- LU 1.2 Residential Growth
- LU 1.12 Interagency Coordination for Growth Management
- LU 1.16 Urban Growth Boundary Implementation

Policy LU 1.2 encourages new residential development to locate within the existing Urban Service Area prior to considering expansion of the Urban Service Area. Policy LU 1.12 encourages the city to work with Santa Clara County and other South Valley communities to ensure a regional approach to growth management and to discourage land subdivision and development activities in areas outside the Urban Service Area but within the sphere-of-influence. Policy LU 1.16 limits any amendments to the Urban Growth Boundary. These policies also establish parameters for future phased and orderly growth and for future growth to be managed through interagency coordination, all of which would involve confirmation of continued reliable water supply and infrastructure.

Goal PFS 2: Operate public facilities and services in a sustainable manner that uses public revenues and resources efficiently.

- PFS 2.3 Sustainable Practices

Policies PFS 2.3 supports sustainable practices, which should result in improved water use efficiency.

Goal PFS 3: Maintain the city's water system to meet the needs of existing and future development while improving water system efficiency.

- PFS 3.1 Water System Master Plan
- PFS 3.2 Urban Water Management Plan
- PFS 3.3 Water Agency Coordination
- PFS 3.4 New Technologies
- PFS 3.7 Water System Reliability

- PFS 3.8 Water Conservation Standards
- PFS 3.9 Water Conservation Programs

Policy PFS 3.1 requires maintenance and continued implementation of the Water System Master Plan to provide water facilities to meet existing and future customer needs. Policy PFS 3.2 requires ongoing maintenance and implementation of the city's Urban Water Management Plan, including water supply and water shortage contingency plans, to ensure the supply of water meets current and future customer demand. Policy PFS 3.3 directs the city to coordinate with Valley Water to ensure the demand for water from any new development does not exceed resource limits of the Llagas Subbasin groundwater supply. Policy PFS 3.4 and PFS 3.5 support use of water reduction technologies and a commitment to provide healthy, safe water. Policy 3.7 encourages major water system projects to focus on improving water system reliability, and replace or repair water lines that are inadequate in size, unreliable, or whose replacement could improve long-term system efficiency. Policy PFS 3.8 requires achieving a 20 percent reduction in per-capita water use from 2009 levels by 2020 consistent with the State's 20x2020 Water Conservation Plan. Policy PFS 3.9 requires coordination with Valley Water to implement cost effective conservation strategies and programs that increase water use efficiency, including providing incentives for adoption of water efficiency measures. Water conservation strategies may include a combination of financial incentives, legislative actions, and public education.

Goal PFS 4: Maintain the city's wastewater collection, treatment, and disposal system to meet the needs of existing and future development anticipated in the Gilroy 2040 General Plan.

- PFS 4.1 Wastewater System Master Plan
- PFS 4.2 Wastewater Treatment and Disposal Capacities
- PFS 4.3 Timing and Location of Development
- PFS 4.4 Effective Wastewater Treatment
- PFS 4.6 Recycled Water
- PFS 4.7 Wastewater Treatment
- PFS 4.8 Water Conservation

Policy PFS 4.1 requires maintenance and implementation of the Wastewater System Master Plan to provide wastewater facilities adequate to meet existing and future customer needs. Policy PFS 4.2 requires provision and maintenance of adequate wastewater treatment and disposal capacities to meet the needs of existing users and support the buildout of the Gilroy 2040 General Plan. Policy PFS 4.3 further requires that adequate wastewater treatment capacity is funded and in place prior to approval of new development, and

Policy PFS 4.4 requires the provision of treatment and disposal facilities that protect groundwater and other natural resources from contamination. Policy PFS 4.6 supports continued use of recycled water to meet water supply needs, which will reduce demand for and use of potable groundwater for non-potable uses.

Policy PFS 4.7 requires maintenance and operations of wastewater treatment and water reclamation facilities, which supports applicable local, state and federal clean water, clean air, and health and safety regulatory requirements. Policy PFS 4.8 encourages water conservation and other programs resulting in reduced demand for wastewater treatment, which, in combination with the required water conservation objectives of Policy PFS 3.8 would also reduce water demand for non-potable uses.

Goal NCR 3: Contribute to improvements in regional air quality and reductions in greenhouse gas emissions.

- NCR 3.10 Water Use Reduction

Policy NCR 3.10 calls for continued implementation of water conservation policies contained within Gilroy's urban water management plan to achieve 20 percent per capita water reductions by 2020.

Goal NCR 4: Maintain overall water quality by protecting surface and groundwater sources, restoring creeks and rivers to their natural state, and conserving water resources.

- NCR 4.2 Pollution Prevention
- NCR 4.3 Drinking Water Quality
- NCR 4.5 Water Conservation and Reclamation
- NCR 4.6 Irrigation with Recycled Water
- NCR 4.7 Inter-Agency Coordination
- NCR 4.8 Low Impact Development
- NCR 4.9 Native and Drought Tolerant Landscaping

Policies NCR 4.2 through 4.4, reduce the potential for water quality impacts that could affect the supply of potable water by prohibiting waste processing facilities and industries using toxic chemicals in areas where pollutants may come in contact with groundwater, floodwaters, creeks, or reservoir waters, by ensuring that city drinking water meets the required and recommended standards set forth by the State of California, and requiring developers to identify and seal abandoned and unused wells within their developments in accordance with the city and Valley Water requirements.

Policy NCR 4.5 requires water conservation measures to maximize the use of recycled water to reduce the overall demand on water resources. This policy also calls for ensuring that recycled wastewater is treated in accordance with state and federal standards. To further reduce demand for potable water, Policy NCR 4.6 encourages the use of recycled water for landscape irrigation, especially for large water users such as golf courses. Policy NCR 4.7 requires continued coordination with agencies relevant to South County's water supply and water quality, including the San Francisco Bay Regional Water Quality Control Board, the Central Coast Regional Water Quality Control Board, Valley Water, the County of Santa Clara, and the City of Morgan Hill to protect regional water quality. Policy NCR 4.8 requires new development to protect the quality of water resources and natural drainage systems through site design, source controls, runoff reduction measures, best management practices, and low impact development techniques. As reported in the previous discussion of groundwater recharge, these practices will encourage continued groundwater recharge for new development. To further reduce water demand Policy NCR 4.9 requires native or drought-tolerant landscaping and water-efficient irrigation systems in all new public facilities, except in active recreation areas, and encourages the use of similar landscaping and irrigation in private development.

Conclusion

Implementation of the Gilroy 2040 General Plan may increase water demand for new and existing development within the Urban Growth Boundary, but not beyond that identified in the city's 2015 Urban Water Management Plan, as the Urban Growth Boundary was significantly reduced by the 2016 Urban Growth Boundary Initiative. Supply is projected to exceed demand in normal, single dry year, and multiple dry years through 2040. Therefore, buildout of the Gilroy 2040 General Plan would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.

IMPACT	Interfere with Groundwater Recharge	Less Than Significant

Under buildout conditions, future development consistent with the Gilroy 2040 General Plan land use designations would increase the amount of impervious surfaces within the urban growth boundary and reduce the amount of naturally-occurring percolation rates from rainfall. The 2015 Urban Water Management Plan states in periods of drought, when less imported water is available to Valley Water for the purpose of recharging the groundwater basins they manage, Valley Water will call on water suppliers to reduce groundwater pumping to avoid basin overdraft and minimize subsidence. In order to reduce water consumption city-wide, Gilroy has a water conservation ordinance that may be invoked to implement restrictions on water use (AKEL 2015). Compliance with city and

RWQCB regulations for Low Impact Development technologies and mandatory post-construction reductions in storm water runoff volumes (discussed in more detail in Section 3.9, Storm Water and Flooding) would also offset increases in impervious surfaces. These regulations require new development to contain storm water runoff on site and let it infiltrate back in to the ground where feasible, thus contributing to groundwater recharge.

Gilroy 2040 General Plan

In addition to the goals and policies identified in Section 3.9, Storm Water and Flooding, the following Gilroy 2040 General Plan policies address groundwater recharge impacts resulting from the loss of permeable soils. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs for the full policy language.

Goal PFS 4: Maintain the City's wastewater collection, treatment, and disposal system to meet the needs of existing and future development anticipated in the Gilroy 2040 General Plan.

- PFS 4.4 Effective Wastewater Treatment

Policy PFS 4.4 requires effective wastewater treatment and disposal that protects groundwater quality.

Goal PFS 5: Maintain an effective storm drainage system to accommodate runoff, prevent property damage due to flooding, and improve environmental quality.

- PFS 5.1 Storm Drain Master Plan
- PFS 5.2 Storm Collection System
- PFS 5.3 Green Infrastructure
- PFS 5.4 Storm water Inspection
- PFS 5.5 Rainwater Harvesting
- PFS 7.4 Curbs and Gutters

Policies PFS 5.1 through 5.5 address private and public storm water collection and treatment, all of which serve to offset reductions in groundwater recharge rate by reducing impervious surfaces and increasing storm water infiltration. Policy PFS 7.4 allows exceptions to installation of curbs and gutters when alternative means of storm water collection are implemented.

Goal NCR 4: Maintain overall water quality by protecting surface and groundwater sources, restoring creeks and rivers to their natural state, and conserving water resources.

- NCR 4.1 Consistent Standards

- NCR 4.2 Pollution Prevention
- NCR 4.8 Low Impact Development

Policy NCR 4.1 calls for coordination between South County Jurisdictions to ensure consistent ordinances, standards, and enforcement procedures regarding water quality. NCR 4.2 prohibits development of waste processing facilities and industries using toxic chemicals in areas where pollutants may come in contact with groundwater or surface waters. Policy NCR 4.8 requires protection of natural drainage systems through site design, source controls, runoff reduction measures, best management practices, and Low Impact Development.

Conclusion

Implementation of these policies in addition to the policies and programs, in Section 3.9, Storm Water and Flooding, will reduce potentially significant impacts to groundwater recharge from loss of permeable soil to less than significant when accompanied with continued compliance with local and state requirements for reductions in impervious surfaces, storm water retention and detention, infiltration, Low Impact Development and Best Management Practices. Therefore, buildout of the Gilroy 2040 General Plan would not substantially interfere with groundwater recharge.

3.11 MINERAL RESOURCES

Unless otherwise noted, the information contained within this section is largely based upon information included in the *Gilroy 2040 General Plan Background Report* (Mintier Harnish 2014), the *Hecker Pass Specific Plan EIR* (EMC Planning Group 2004), the *Gilroy 2002/2020 General Plan*, and information obtained from the California Department of Conservation Division of Mines and Geology. The background report is available on the city's website at http://www.gilroy2040.com/documents/.

No concerns regarding impacts to mineral resources were raised by comments on the NOP.

Environmental Setting

Gilroy is located within the Monterey Bay Production-Consumption Region identified and monitored by the California Department of Conservation Division of Mines and Geology. Mineral resources in the vicinity of Gilroy include resources such as sand, clay, or gravel. As noted in the background report (Section 5.4), significant mineral resources (specifically alluvial deposit) can be found in the Uvas Creek vicinity in southwestern Gilroy and west of Gilroy.

Uvas Creek and adjoining margins within the city's Hecker Pass Special Use District have been designated by the California Department of Conservation, State Mining and Geology Board (Board) as "Mineral Resource Zone MRZ-2," which is used for areas where "adequate

information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence." The Board considers mineral resources within the Mineral Resource Zone MRZ-2 (sand and gravel used to make concrete) as being of statewide importance.

According to the California Department of Conservation (2000, pp. 18-19, 33), a former quarry extracted gravel along Uvas Creek but ceased activity in the 1980s. Evidence of the former quarry included a pit and 15-foot-tall waste mounds. The excavation affected the location and rate of erosion of the Uvas Creek banks. Sand and gravel resources along the creek were estimated to total about 23 million tons, which was approximately six percent of the total tonnage (387 million tons) of State-designated sand and gravel resources within the Monterey Bay region. This area was redeveloped into a residential neighborhood consistent with the land use designations of the Hecker Pass Specific Plan.

A second designated MRZ-2 mineral resource is located in rural Santa Clara County approximately one-half mile southwest from the intersection of U.S. Highway 101 and State Route 25. An active quarry, the 60-acre Verne D. Freeman Sr. Quarry, is located within this zone. The entire zone is located within the Gilroy 2040 General Plan Planning Area/Sphere of Influence, but outside of the Urban Growth Boundary.

Regulatory Setting

Surface Mining and Reclamation Act of 1975

The Surface Mining and Reclamation Act of 1975 (Act) provides a comprehensive surface mining and reclamation policy with the regulation of surface mining operations to assure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition. This Act also encourages the production, conservation, and protection of the state's mineral resources and is administered by the California Department of Conservation, Office of Mine Reclamation. The Act mandates that the State Board of Mining and Geology Board and Division of Mines and Geology prepare a mineral resource report for each county. The Act also regulates the permitting of mining operations, provides for inspections during the life of the mine, and contains provisions to ensure that remediation occurs after completion of mining operations. Under this Act, local agencies wishing to reclaim a mine or quarry are required to submit reclamation plans and plan amendments to the Director of the Department of Conservation for review.

The California Geological Survey broadly classifies mineral resources in four Mineral Resource Zones (MRZ) or as a Scientific Zone. A summary of these zones is provided in Table 3.11-1, Mineral Resource Zones. Resources of specific significance can be designated by the State Mining and Geology Board as having regional or statewide significance.

Table 3.11-1 Mineral Resource Zones

Mineral Resource Zone	Description
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 for their presence exists.
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.
SZ	Areas containing unique or rare occurrences of rocks, minerals, or fossils that are of outstanding scientific significance shall be classified in this zone.

Source: California Department of Conservation Division of Mines and Geology 2015

Hecker Pass Specific Plan

The city's approval of development associated with the Hecker Pass Specific Plan effectively eliminated the availability of sand and gravel resources along Uvas Creek. The loss of the mineral resources located along Uvas Creek was analyzed by the city in the Hecker Pass Specific Plan EIR (EMC Planning Group 2004, pp. 3-9). According to that EIR, although mineral resources may be present along Uvas Creek in the vicinity of Hecker Pass, previous sand and gravel extraction activities resulted in extensive erosion along the creek. In addition, reactivating mining in this area would have conflicted with the city's 2020 general plan policies for protecting the biological resources and scenic quality of Uvas Creek in the Hecker Pass Special Use District. The city determined that these goals outweighed the value of extracting sand and gravel from Uvas Creek in the Hecker Pass Special Use District, and amended the 2020 general plan to eliminate the MRZ-2 mineral resource designation within the Hecker Pass Special Use District. Although the city has yet to apply for termination of the state's designation of the Uvas Creek area as a mineral resource zone (Stan Ketchum, pers. com 2015), these resources are no longer available for extraction due to implementation of the Hecker Pass Specific Plan.

Thresholds of Significance

The City of Gilroy CEQA thresholds of significance state that a project may have a significant effect on the environment if it would:

- 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; or
- 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.

Analysis, Impacts, and Mitigation

IMPACT	Loss of Availability of a Known Mineral Resource of Value to the Region and Residents of the State or a Locally-Important Resource Recovery Site Identified in the General Plan	No Impact

Potential impacts on the availability of mineral resources are typically assessed in the context of whether mineral resources are located within the boundary of a project area and if so, the type and importance of the resources that may be affected.

The Verne D. Freeman Sr. quarry is located outside the Urban Growth Boundary in unincorporated Santa Clara County, which is designated as rural county in the Gilroy 2040 General Plan. Implementation of the Gilroy 2040 General Plan would have no effect on the availability of mineral resources associated with this quarry facility and mineral resource zone. Due to implementation of the Hecker Pass Specific Plan, resources along Uvas Creek are no longer available for extraction. For these reasons, the proposed project would have no impact to the availability of mineral resources with local, regional, or statewide importance. No further discussion is required.

Conclusion

Buildout of the Gilroy 2040 General Plan would have no impact on known mineral resources.

3.12 NOISE

Unless otherwise noted, the information contained within this section is based upon the *City of Gilroy 2040 General Plan Draft Noise and Vibration Assessment* prepared by Illingworth and Rodkin (2020), which is included as Appendix F.

No comments were received during the NOP comment periods related to noise.

Background

Analysis methodologies and noise and vibration concepts, including terminology and the effects of noise and ground vibration, are included in the introduction of noise and vibration assessment.

Environmental Setting

Gilroy 2040 General Plan Noise Measurement Survey

A noise measurement survey was completed to establish existing noise levels in the City of Gilroy. Long-term measurements were made over a period of 24 hours or more to provide information on how noise levels vary throughout the day and night and may vary from day to day. A series of attended short-term (10-minute) measurements were also made. During

attended measurements, the observer identifies and documents noise sources occurring during each measurement and notes the level of noise associated with each identifiable event. This assists in quantitatively and qualitatively characterizing the noise environment along the major roadways and also in the quieter areas of Gilroy.

The State Office of Planning and Research Guidelines related to the preparation of the Noise Element of the General Plan mandate that noise exposure levels be prepared in terms of the day/night average sound level (L_{dn}) or the community noise equivalent level (CNEL). Both of these descriptors were described previously and represent the 24-hour average noise level with weighting periods for the daytime (L_{dn}) or the daytime and evening (CNEL). L_{dn} is currently the preferred metric and is used in noise and vibration assessment to characterize the 24-hour average noise exposure level. It is also important to know how noise levels vary within each hour of the day and night. For this purpose, standard acoustical descriptors were measured and reported. These standard statistical descriptors are the L_{max}, the L_1, the L_{10}, the L_{50}, and the L_{90}. The L_{max} noise level is the highest noise level during the interval and the L_1, L_{10}, L_{50}, and L_{90} represent sound levels exceeding 1 percent, 10 percent, 50 percent (the median level), and 90 percent of the time interval (representing the background noise levels). The hourly equivalent sound level (L_{eq}), the basis for the day/night average noise levels, was measured and reported for each hour as well.

Noise measurement locations are shown on Figure 3.12-1, Noise Measurement Locations in Gilroy, and Appendix A of the noise and vibration assessment summarizes the data collected at the long-term measurement sites. During the noise survey, weather conditions were moderate in terms of temperature and wind. The noise survey was conducted with Larson Davis Laboratories Type 820 precision sound level meters. Instrumentation was calibrated at the beginning of the noise survey and post-calibrated at the end of the survey. No calibration corrections were necessary. During the survey, the microphones were fitted with windscreens. Detailed descriptions of each noise measurement locations are included in the noise and vibration assessment.

Principal Noise Sources in Gilroy

Stationary Noise Sources

Industrial operations are the primary stationary noise sources that make a significant local contribution to community noise levels in Gilroy. In general, these stationary noise sources (e.g. fabrication, large mechanical equipment, and loading areas) are often located in primarily commercial and industrial areas and are isolated from noise-sensitive land uses. However, the possibility of sensitive development encroaching on some of these stationary noise sources remains, which could result in some land use conflicts. Noise sources that affect sensitive receptors within the community would also include commercial land uses and sources normally associated with and/or secondary to residential development. These include entertainment venues, nightclubs, outdoor dining areas, gas stations, car washes, fire stations, drive-throughs, air conditioning units, swimming pool pumps, school playgrounds, athletic and music events, and public parks.

The majority of stationary noise sources in Gilroy are from rooftop and loading dock equipment at commercial uses located on Monterey Road, West 10th Street, and 1st Street. There are also several industrial facilities within the community that contain large mechanical equipment along S.R. 152, east of Cameron Boulevard.

Temporary Noise Sources

Construction is a temporary source of noise for residences and businesses located near construction sites. Construction noise can be significant for short periods of time at any particular location as a result of public improvement projects, private development projects, remodeling, etc. The highest construction noise levels are normally generated during grading and excavation, with lower noise levels occurring during building construction. Large pieces of earth-moving equipment, such as graders, scrapers, and bulldozers, generate maximum noise levels of 85 to 90 dBA L_{max} at a distance of 50 feet. Typical hourly average construction-generated noise levels are about 80 to 85 dBA L_{eq}, measured at a distance of 50 feet from the site during busy construction periods. Some construction techniques, such as impact pile driving, can generate very high levels of noise (105 dBA L_{max} at 50 feet) that are difficult to control. Construction activities can elevate noise levels at adjacent businesses and residences by 15 to 20 dBA or more.

Traffic Noise

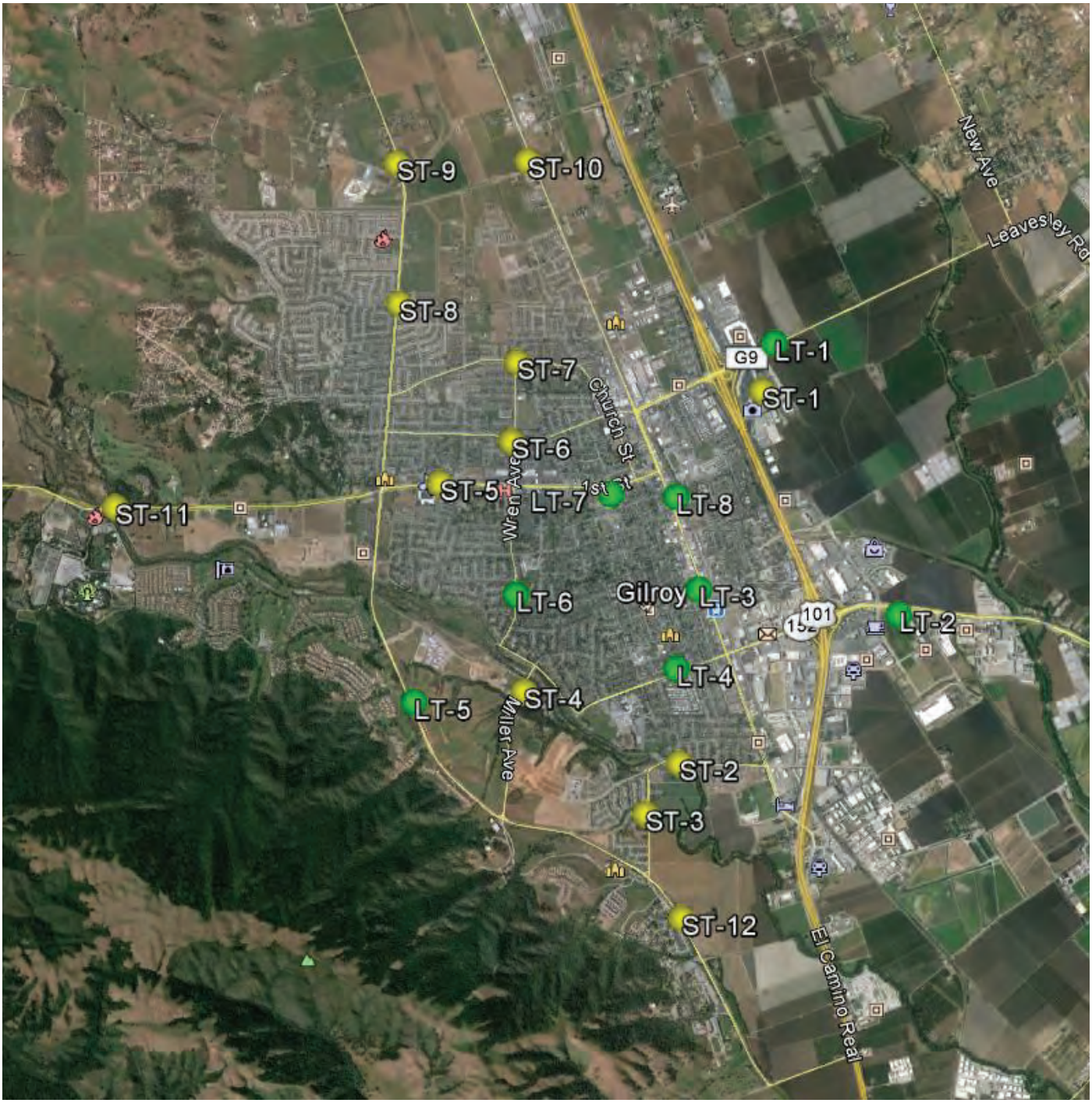
The most prominent ambient noise source in Gilroy is vehicles traveling along major roadways. U.S. Highway 101 runs through the easternmost portion of the city. Major local roadways include Monterey Road, Santa Teresa Boulevard, SR 152 (1st Street/Hecker Pass Highway, Leavesley Road, and 10th Street), Wren Avenue, Welburn Avenue, and Miller Avenue. Vehicular traffic on smaller local roads also contributes to the noise environment at receptors along these roadways.

U.S. Highway 101 is the major north-south transportation corridor transecting Gilroy and is the predominant source of noise throughout most of the community. SR 152 is the major west-east corridor that provides access to Watsonville to the west over Hecker Pass and Interstate 5 to the east over Pacheco Pass. Table 3.12-1, Existing and 2040 Plus Project Modeled Noise Levels Along Gilroy Roadways, presents existing and year 2040 Plus Project L_{dn} noise levels calculated at a reference distance of 75 feet from the center of the near travel lane for roadways in Gilroy.

Figure 3.12-2, Existing Traffic Noise Contours in Gilroy presents existing noise contours for Gilroy.

Rail Noise

The Union Pacific Railroad (UPRR) roughly parallels Monterey Road and generates noise when passenger or freight trains pass through the city. The highest noise levels occur when trains sound their warning whistles near at-grade crossings. Railroad lines are another significant source of transportation-related noise in Gilroy. The UPRR main-line, running



Source: Illingworth and Rodkin Inc. 2020

Figure 3.12-1
Noise Measurement Locations in Gilroy

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north-south adjacent to Monterey Road, transects the city and carries both passenger and freight train traffic. According to the Caltrain weekday timetable, six commuter trains per day run to/from Gilroy, the southernmost end of the passenger train service. Two Amtrak trains along the Coast Starlight route pass through Gilroy each day. No freight trains were observed during field measurements, but based on noise measurements conducted adjacent to the rail line, it is estimated that approximately four to eight freight trains pass through Gilroy per day.

Table 3.12-1 Existing and 2040 Plus Project Modeled Noise Levels Along Gilroy Roadways

Roadway	Segment	L_{dn} at 75 feet, dBA		Change Over Existing
		Existing	Buildout	
U.S. Highway 101[1]	North City Limits to South City Limits	81	82	1[3]
1st St.	Santa Teresa Blvd. to Westwood Dr.	66	67	1
	Kern Ave. to Wren Ave.	68	68	0
	Wren Ave. to Monterey Rd.	64	66	2
10th St.	Uvas Park Dr. to Church St.	64	66	2
Arroyo Circle	Leavesley Ave. to Pacheco Pass Hwy.	67	66	-1[2]
Buena Vista Ave[5]	No Name Rd. to Marcella Ave.	58	66	8
	Church St. to Wren Ave.	--[4]	70	--
Cameron Blvd.	Leavesley Ave. to Pacheco Pass Hwy.	55	60	5
	Pacheco Pass Hwy. to Luchessa Ave.	--[4]	64	--
	Luchessa Ave. to Southside Dr.	--[4]	62	--
Camino Arroyo	Gilman Rd. to Pacheco Pass Hwy.	67	68	1
	Pacheco Pass Hwy. to Venture Way	65	66	1
Chestnut St.	Luchessa Avenue to 10th St.	65	66	1
	10th St. to 6th St.	63	64	1
Church St.	Mantelli Dr. to Welburn Ave.	64	64	0
	Welburn Ave. to 6th St.	63	63	0
	6th St. to 10th St.	62	63	1
Cohansey Ave.	Wren Ave. to Kern Ave.	--[4]	61	--
Day Rd.	Santa Teresa Blvd. to Monterey Rd.	64	56	-8[2]
	West of Santa Teresa Blvd.	64	65	1
Hecker Pass Rd. (SR 152)	West of Santa Teresa Blvd.	69	70	1
I.O.O.F. Ave.	Monterey Rd. to Murray Ave.	62	68	6

Roadway	Segment	L_{dn} at 75 feet, dBA		Change Over Existing
		Existing	Buildout	
Leavesley Ave.	Arroyo Cir. to Marcella Ave.	67	64	-3[2]
Luchessa Ave.	Thomas Rd. to Church St.	64	68	4
Mantelli Dr.	Kern Ave. to Wren Ave.	64	66	2
	Welburn Ave. to Santa Teresa Blvd.	62	64	2
Marcella Ave.	Buena Vista Ave. to Leavesley Ave.	58	67	9[5]
Monterey Rd.	3rd St. to 6th St.	61	64	3
	10th St. to Luchessa Ave.	67	69	2
	Farrell Ave. to Las Animas Ave.	71	74	3
	Buena Vista Ave. to Cohansey Ave.	71	72	1
	Masten Ave. to Buena Vista Ave.	73	74	1
Pacheco Pass Hwy. (SR 152)	Camino Arroyo to Cameron Blvd.	72	73	1
Santa Teresa Blvd.	Fitzgerald Ave. to Day Rd.	69	71	2
	Longmeadow Dr. to Mantelli Dr.	66	71	5
	Mantelli Dr. to Hecker Pass Rd.	66	72	6
	3rd St. to Club Dr.	69	71	2
	Club Dr. to Miller Ave.	68	72	4
	Miller Ave. to Thomas Rd.	67	70	3
	Thomas Rd. to Castro Valley Rd.	66	71	5
Thomas Rd.	Luchessa Ave. to Santa Teresa Blvd.	66	67	1
Uvas Park Dr.	Wren Ave. to Miller Ave.	62	63	1
Welburn Ave.	Santa Teresa Blvd. to Kern Ave.	58	59	1
	Wayland Ln. to Church St.	63	63	0
Wren Ave.	3rd St. to 6th St.	64	65	1
	Mantelli Dr. to 1st St.	63	64	1

Source, Illingworth & Rodkin 2020

Notes:

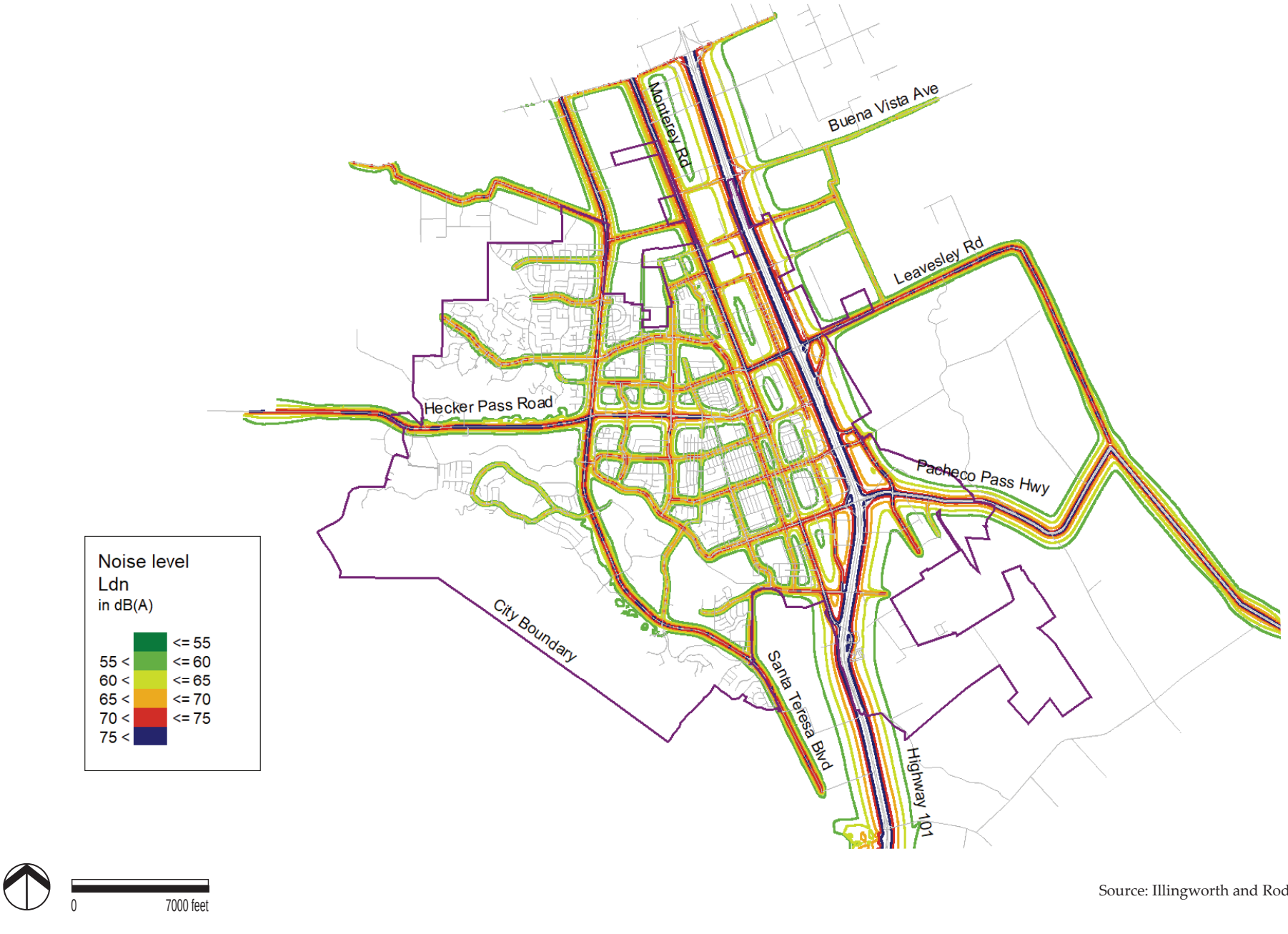
1 Barriers along U.S. Highway 101 were not entered into the model and were not taken into account.

2 Due to future roadway extensions and rerouting of traffic, traffic noise levels along certain segments under year 2040 Buildout conditions would decrease from existing conditions.

3 Existing traffic along U.S Highway 101 was based on information published by Caltrans. Year 2040 traffic was estimated based on engineering judgement and traffic volumes provided on other city roadways.

4 These segments are planned for the future 2040 buildout but do not currently exist.

5 The Cameron Boulevard extension would potentially result in noise increases of 8 to 10 dB along certain segments of Buena Vista Avenue and Marcella Avenue.



Source: Illingworth and Rodkin Inc. 2020

Figure 3.12-2

Existing Traffic Noise Contours in Gilroy

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Aviation Noise

General aviation and occasional high-altitude jet aircraft overflights are also audible throughout the community but do not make a substantial contribution to community noise levels. The closest airport to Gilroy is the San Martin Airport located approximately five miles to the north, west of US 101.

Vibration

Transportation-Related Vibration Sources

There is one passenger and freight rail line, which is discussed above, running through Gilroy that is a significant source of transportation-related vibration.

Approximately 12 to 16 trains pass through Gilroy on a daily basis. Many of these trains pass during evening and nighttime hours when people are normally at rest. Rail traffic along the line is anticipated to increase to up to 30 trains per day, and future train activity would be considered "occasional" with respect to the Federal Transit Administration (FTA) vibration impact criteria. The 75 VdB limit is used to characterize the vibration compatibility. Although not a universally accepted notation, the abbreviation "VdB" is used in this analysis for vibration levels in decibels to reduce the potential for confusion with airborne sound levels in decibels.

Charles M. Salter Associates, Inc. measured ground-borne vibration levels ranging from 79 to 80 VdB at a distance of 50 feet from the center of the main railroad track, 73 to 74 VdB at a distance of 100 feet from the center of main railroad track, and 68 VdB at a distance of 200 feet from the center of main railroad track in 2006 during freight and passenger train pass-by events.

Transportation-related ground vibration could also occur from heavy truck passbys on U.S. Highway 101 and occasionally on major local roadways, although the resulting vibration levels at the nearest receptors are normally below the threshold of perception.

Temporary Vibration Sources

Construction activities, such as demolition, site preparation, excavation, and foundation work, can generate ground-borne vibration at land uses adjoining construction sites. Impact pile driving has the potential of generating the highest ground vibration levels and is of primary concern to structural damage. Other project construction activities, such as caisson drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.), can generate substantial vibration levels in the immediate vicinity.

Regulatory Setting

Federal

Department of Housing and Urban Development (HUD)

HUD environmental criteria and standards are presented in Title 24 of the Code of Federal Regulations (CFR), Part 51 (24 CFR Part 51). New residential construction qualifying for HUD financing proposed in high noise areas (exceeding 65 dBA L_{dn}) must incorporate noise attenuation features to maintain acceptable interior noise levels. A goal of 45 dBA L_{dn} is set forth for interior noise levels and attenuation requirements are geared toward achieving that goal. It is assumed that with standard construction any building will provide sufficient attenuation to achieve an interior level of 45 dBA Ldn or less if the exterior level is 65 dBA L_{dn} or less. Approvals in a "normally unacceptable noise zone" (exceeding 65 dBA but not exceeding 75 dBA) require a minimum of 5 dBA additional noise attenuation for buildings. Approvals in a "normally unacceptable noise zone" are only possible if the day-night average is greater than 65 dBA but does not exceed 70 dBA, or minimum of 10 dBA of additional noise attenuation if the day-night average is greater than 70 dBA but does not exceed 75 dBA.

Federal Highway Administration (FHWA)

Proposed federal or federal-aid highway construction projects at a new location, or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes requires a noise assessment and consideration of noise abatement per 23 CFR Part 772, "Procedures for Abatement of Highway Traffic Noise and Construction Noise." FHWA has adopted noise abatement criteria (NAC) for sensitive receptors, such as picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals, when "worst-hour" noise levels approach or exceed 67 dBA Leq. The California Department of Transportation (Caltrans) has further defined approaching the NAC to be 1 dBA below the NAC for noise-sensitive receptors identified as Category B activity areas (e.g., 66 dBA Leq is considered approaching the NAC).

State

California Administrative Code Section (65302(f)

California Government Code Section 65302(f) requires that all general plans include a noise element to address noise problems in the community. The Noise Element shall recognize the guidelines established by the Office of Noise Control in the State Department of Health Services and shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels for all of the following sources:

- Highways and freeways.
- Primary arterials and major local streets.

- Passenger and freight on-line railroad operations and ground rapid transit systems.
- Commercial, general aviation, heliport, military airport operations, aircraft flyovers, jet engine tests stands, and all other ground facilities and maintenance functions related to airport operation.
- Local industrial plants, including, but not limited to, railroad classification yards.
- Other stationary ground noise sources identified by local agencies as contributing to the community noise environment.

Noise contours shall be shown for all of these sources and stated in terms of CNEL or L_{dn}. The noise contours shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques for the various sources identified above.

The noise contours shall be used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of community residents to excessive noise. The noise element shall include implementation measures and possible solutions that address existing and foreseeable noise problems, if any. The adopted noise element shall serve as a guideline for compliance with the state's noise insulation standards.

California Noise Insulation Standards

In 1974, the State of California established minimum noise insulation performance standards for hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family dwellings in Title 25 of the California Administrative Code. These standards were ultimately implemented through Title 24 and the various versions of the California Building Code. The noise limit was a maximum interior noise level of 45 dBA L_{dn}/CNEL. Where exterior noise levels exceed 60 dBA L_{dn}/CNEL, 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 Office of Planning and Research (OPR) Guidelines require the general plan to facilitate the implementation of the Building Code noise insulation standards.

California Department of Transportation (Caltrans) – Construction Vibration

Caltrans identifies 0.5 inches/second PPV as the threshold for which there is a risk of damage to new residential and modern commercial/industrial structures, 0.3 inches/second PPV as the threshold for older residential structures, and 0.25 inches/second PPV as the threshold for damage to historic and some old buildings. 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.

Local

Gilroy Noise Ordinance

The City of Gilroy Zoning Ordinance (Chapter 30, Section 41.31) contains quantitative noise limits for noise sources within the City of Gilroy based on the land use of the property receiving the noise. The noise ordinance establishes acceptable exterior noise levels and exemptions from the ordinance for special activities, such as emergency work and refuse and recycling collection. Special noise limits are also established for certain noise-generating activities. The City of Gilroy's zoning ordinance (Chapter 30, Section 41.31) reads as follows:

Section 41.31 Specific Provisions – Noise

It shall be unlawful to generate noise within the city limits that exceeds the limits established in this section.

(a) Definitions:

"Decibel (dBA)" means a unit measuring the amplitude of sound or noise, weighted to the range of human hearing (A-weighting scale on a sound level meter).

"L10" means the maximum noise level to be exceeded no more than ten percent (10%) of the time.

"Noise level" means measurement of sound in decibels (dBA) obtained by using a sound level meter at slow response.

"Sound level meter" means an instrument comprised of a microphone, an amplifier, an output meter and frequency weighing networks, used for measuring sound levels in decibel (dBA) units.

(b) Maximum Outdoor Noise Levels:

(1) Residential Noise Impacting Residential Properties. Fixed-source outdoor mechanical equipment installed after July 1, 2007 (e.g., pool, spa, air conditioning or similar equipment) is limited to a maximum of sixty (60) dBA Ldn measured at the property line or seventy (70) dBA (L10) measured at the property line.

(2) Commercial and Industrial Noise Impacting Residentially Zoned Properties. Noise emanating from properties that are zoned for uses other than residential is limited to a maximum of 70 dBA (L10) measured at the residential property line. Such noise is limited to the hours of 7:00 a.m. to 10:00 p.m., and prohibited between the hours of 10:00 p.m. and 7:00 a.m.

Section 16.38 Hours of Construction

(a) Unless otherwise provided for in a validly issued permit or approval, construction activities shall be limited to the hours of seven (7) a.m. and seven (7) p.m., Monday through Friday and nine (9) a.m. to seven (7) p.m. on Saturday. Construction

activities shall not occur on Sundays or city holidays, which include: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas. "Construction activities" are defined as including but not limited to, excavation, grading, paving, demolitions, construction, alteration or repair of any building, site, street or highway, delivery or removal of construction material to a site, or movement of construction materials on a site.

(b) In the event the chief building official or his or her designee determines that the public health and safety will not be impaired by the construction activities between the hours of seven (7) p.m. and seven (7) a.m., and that loss or inconvenience would result to any party in interest, the chief building official may grant permission for such work to be done between the hours of seven (7) p.m. and seven (7) a.m. upon an application being made at the time the permit for the work is issued or during the progress of the work.

(c) The city council finds that construction activities by the resident of a single residence does not have the same magnitude or frequency of noise impacts as a larger construction project. Therefore, the resident of a single residence may perform construction activities on that home during the hours in this subsection, as well as on Sundays and city holidays from nine (9) a.m. to six (6) p.m., provided that such activities are limited to the improvement or maintenance undertaken by the resident on a personal basis.

(d) No third person, including but not limited to, landowners, construction company owners, contractors, subcontractors, or employers, shall permit or allow any person working on construction activities, which are under their ownership, control or direction to violate this provision. The provisions prescribed herein may be enforced by the chief building official or his or her designee or the police department. Violation of this section shall be a misdemeanor and each day such violation is committed or permitted to continue constitutes a separate offense and shall be punishable as such.

Thresholds of Significance

The City of Gilroy CEQA thresholds of significance state that a project may have a significant effect on the environment if it would:

a) Result in exposure of persons to or generation of noise levels in excess of standards established in the general plan. The maximum permissible noise levels in the 2020 General Plan and in the proposed 2040 General Plan are provided below:

b) Result in exposure of persons to or generation of excessive ground-borne vibration or ground borne noise levels. Projects resulting in exposure of persons to or generation of excessive ground-borne vibration or ground borne noise levels would require a special study to determine the impact and recommend mitigation measures, or

c) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. All construction projects have the potential to result in substantial temporary increases in noise levels.

Permissible Maximum Outdoor and Indoor Noise Levels (2020 General Plan)

Land Use Category	Maximum Outdoor L_{DN} (DBA)	Maximum Indoor L_{DN} (dBA)
Residential	60[1]	45
Commercial	65	61
Industrial	76	See note 2

Source: Figure 8-3 Permissible Maximum Outdoor and Indoor Noise Levels from Gilroy General Plan Noise Element

Notes:

[1] The outdoor sound levels for residential properties shall be held to 60-dBA, or a maximum of 70 dBA if all of the following findings can be made:
- That potential noise levels, exceeding the 60 dBA standard, are generally limited to less than 10% of the entire project site,
- That reasonably accepted sound attention measures have been incorporated into the project design,
- That potential noise levels are part of the developer's disclosure to future residents,
- That interior noise limits established by the General Plan are strictly maintained, and
- Potential noise levels will not jeopardize the health, safety, and general welfare of the public.

Nevertheless, a 60-dBA outdoor noise threshold shall be maintained for active living/recreation areas FOR ALL DWELLINGS, rather than all yards surrounding an entire dwelling. All residents should be afforded a private outdoor living/recreation area [i.e., rear yard space, courtyard, patio, terrace, deck, extended porch, veranda, etc.].

[2] The indoor standards for industrial land uses have been set by the Occupational Safety and Health Administration. The maximum level to be exceeded no more than 10 percent of the time (L10) is 65 dBA while the maximum level to be exceeded no more than 50 percent of the time (L50) is 60 dBA.

Permissible Maximum Outdoor and Indoor Noise Levels (Proposed 2040 General Plan)

Land Use Category	Maximum Outdoor L_{DN} (DBA)	Maximum Indoor L_{DN} (dBA)
Residential	60[1]	45
Commercial	65	61
Industrial	76	See note 2

Source: Table 9-1 Permissible Maximum Outdoor and Indoor Noise Levels (Public Review Draft 2040 General Plan)

Notes:

LDN – The Day/Night Average Sound Level. Day-night average sound level-the 24-hour A-weighted equivalent sound level, with a 10 decibel penalty applied to nighttime levels.

[1] The Outdoor sound levels for residential properties shall be held to 60-dBA LDN, or a maximum of 70-dBA if ALL of the following FINDINGS can be made:
- That feasible sound attenuation measures have been incorporated in the project design;
- That potential noise levels are part of the developer's disclosure to future residents;
- That interior noise limits established by the General Plan are strictly maintained; and
- Potential noise levels will not jeopardize the health, safety, and general welfare of the public.

[2] The indoor standards for industrial land uses have been set by the Occupational Safety and Health Administration. The maximum level to be exceeded no more than 10 percent of the time (L10) is 65 dBA, while the maximum level to be exceeded no more than 50 percent of the time (L50) is 60 dBA.

Analysis, Impacts, and Mitigation

Buildout of the Gilroy 2040 General Plan would allow for future development of noise-sensitive land uses in areas located in varying noise environments. New noise-sensitive

development would be allowed along major transportation corridors and in the vicinity of stationary noise sources. A significant noise impact would be identified where noise-sensitive land uses are proposed in areas where existing or future noise levels would exceed the noise and land use compatibility standards established by the City of Gilroy.

IMPACT	Increased Vehicular Traffic and Transportation and Infrastructure Improvements Would Result in Existing Sensitive Land Uses Being Exposed to Noise Levels in Excess of Gilroy's Noise Thresholds	Less Than Significant

The increased development allowed under the General Plan would result in an increase in vehicular traffic as development occurs and population increases. These projected increases in traffic would occur over time and would increase noise levels throughout Gilroy and the vicinity. Traffic volumes provided by Hexagon Transportation Consultants were reviewed to calculate the change in traffic noise levels attributable to the cumulative growth planned in the Gilroy General Plan. The future noise exposure levels were calculated using the existing measured noise levels adjusted upward to account for increased traffic on the roadways due to cumulative development including the build out of the City of Gilroy 2040 General Plan, and by modeling noise levels along new roadway segments using the FHWA Traffic Noise Model (TNM) algorithms. The distances to the 60, 65, and 70 dBA L_{dn} future traffic noise contours for the major roadways located in Gilroy are summarized in Table 3.12-2. The results shown in Table 3.12-2, 2040 General Plan Buildout Traffic Noise Contours, are depicted graphically in Figure 3.12-2 (see under "Existing Conditions") and Figure 3.12-3, 2040 General Plan Buildout Traffic Noise Contours in Gilroy.

Table 3.12-2 2040 General Plan Buildout Traffic Noise Contours

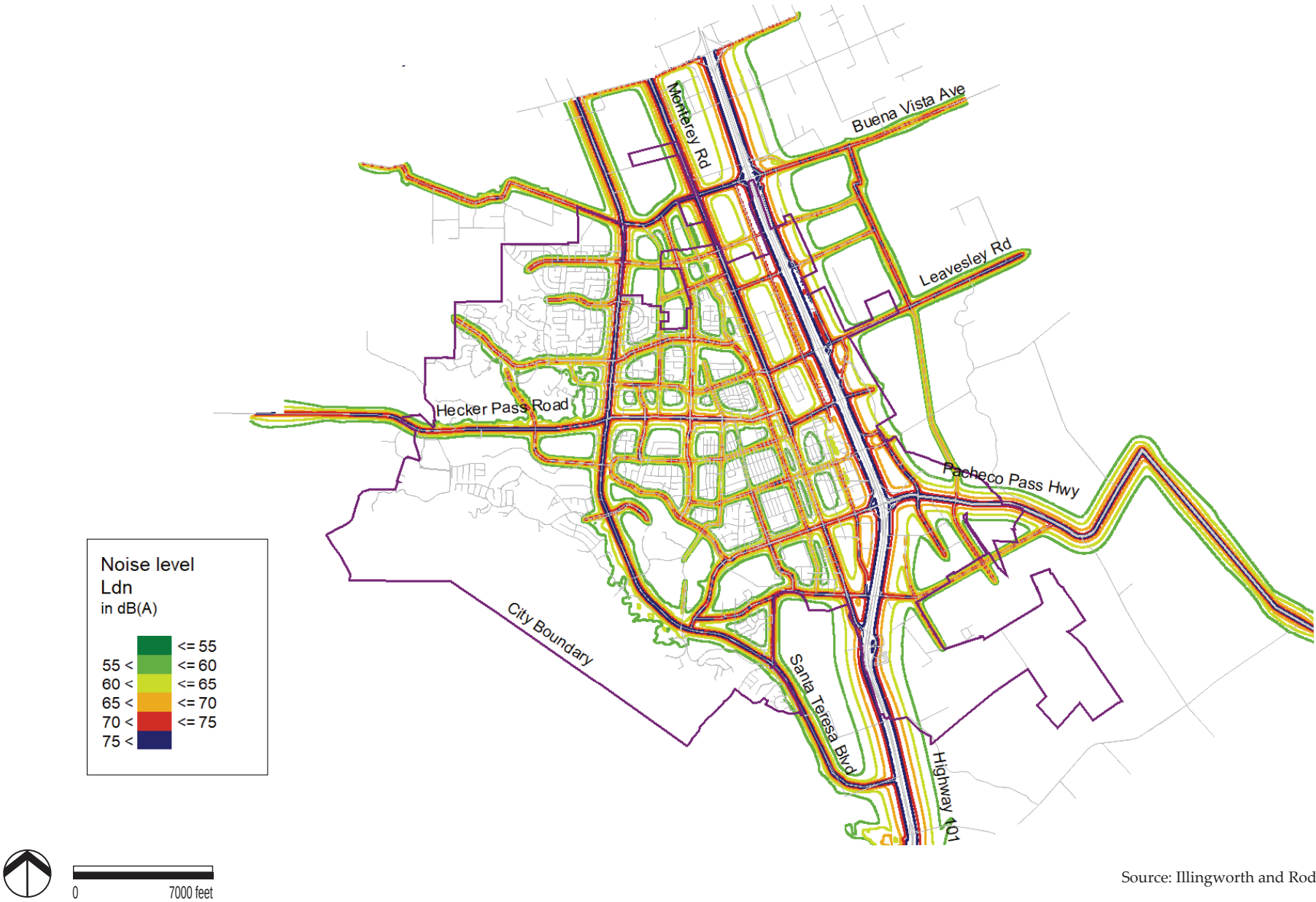
Roadway	Segment	Distance from Centerline to Traffic Noise Contours[1], feet		
		70 dBA L_{dn}	65 dBA L_{dn}	60 dBA L_{dn}
US 101	North City Limits to South City Limits	470	1020	2200
1st St.	Santa Teresa Blvd. to Westwood Dr.	<50	100	220
	Kern Ave. to Wren Ave.	60	120	260
	Wren Ave. to Monterey Rd.	<50	90	190
10th St.	Uvas Park Dr. to Church St.	<50	90	190
Arroyo Circle	Leavesley Ave. to Pacheco Pass Hwy.	<50	90	190
Buena Vista Ave.	No Name Rd. to Marcella Ave.	<50	90	190
Cameron Blvd.	Leavesley Ave. to Pacheco Pass Hwy.	<50	<50	80
	Pacheco Pass Hwy. to Luchessa Ave.	<50	60	140
	Luchessa Ave. to Southside Dr.	<50	50	100
Camino Arroyo	Gilman Rd. to Pacheco Pass Hwy.	60	120	260

Roadway	Segment	Distance from Centerline to Traffic Noise Contours[1], feet		
		70 dBA L_{dn}	65 dBA L_{dn}	60 dBA L_{dn}
	Pacheco Pass Hwy. to Venture Way	<50	90	190
Chestnut St.	Luchessa Avenue to 10th St.	<50	90	190
	10th St. to 6th St.	<50	60	140
Church St.	Mantelli Dr. to Welburn Ave.	<50	60	140
	Welburn Ave. to 6th St.	<50	60	120
	6th St. to 10th St.	<50	60	120
Cohansey Ave.	Wren Ave. to Kern Ave.	<50	<50	90
Day Rd.	West of Santa Teresa Blvd.	<50	80	160
Hecker Pass Rd.	West of Santa Teresa Blvd.	80	160	350
I.O.O.F. Ave.	Monterey Rd. to Murray Ave.	60	120	260
Leavesley Ave.	Arroyo Cir. to Marcella Ave.	<50	60	140
Luchessa Ave.	Thomas Rd. to Church St.	60	120	260
Mantelli Dr.	Kern Ave. to Wren Ave.	<50	90	190
	Welburn Ave. to Santa Teresa Blvd.	<50	60	140
Monterey Rd.	3rd St. to 6th St.	<50	60	140
	10th St. to Luchessa Ave.	60	140	300
	Farrell Ave. to Las Animas Ave.	140	300	340
	Buena Vista Ave. to Cohansey Ave.	100	200	470
	Masten Ave. to Buena Vista Ave.	140	300	340
Pacheco Pass Hwy.	Camino Arroyo to Cameron Blvd.	120	260	550
Santa Teresa Blvd.	Fitzgerald Ave. to Day Rd.	90	190	410
	Longmeadow Dr. to Mantelli Dr.	90	190	410
	Mantelli Dr. to Hecker Pass Rd.	100	200	470
	3rd St. to Club Dr.	90	190	410
	Club Dr. to Miller Ave.	100	220	470
	Miller Ave. to Thomas Rd.	80	160	350
	Thomas Rd. to Castro Valley Rd.	90	190	410
Thomas Rd.	Luchessa Ave. to Santa Teresa Blvd.	50	100	220
Uvas Park Dr.	Wren Ave. to Miller Ave.	<50	60	120
Welburn Ave.	Santa Teresa Blvd. to Kern Ave.	<50	<50	60
	Wayland Ln. to Church St.	<50	60	120
Wren Ave.	3rd St. to 6th St.	<50	80	160
	Mantelli Dr. to 1st St.	<50	60	140

Source: Illingworth& Rodkin 2020

Notes:

1. Noise levels do not take shielding from terrain, structures, or noise barriers into account. Use of electric vehicles are also not taken into account in noise measurements.
2. Noise levels at distances greater than 300 feet from roadway centerlines are likely to change with varying atmospheric conditions.



Source: Illingworth and Rodkin Inc. 2020

Figure 3.12-3

2040 General Plan Buildout Traffic Noise Contours in Gilroy

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As indicated in Table 3.12-2, perceptible noise increases (3 dBA Ldn or greater) would occur along segments of Buena Vista Avenue, Cameron Boulevard, I.O.O.F. Avenue, Luchessa Avenue, Marcella Avenue, Monterey Road, and Santa Teresa Boulevard as a result of 2040 General Plan Buildout conditions. Existing residential land uses are located within the projected 60 dBA Ldn noise contours under 2040 General Plan Buildout conditions along portions of all of these roadways, with the exception of Cameron Boulevard. In addition to projected traffic noise increases along existing roadway segments, traffic noise levels would increase in areas adjacent to proposed future roadways and roadway extensions.

As indicated in Tables 3.12-1 and 3.12-2, existing and future noise levels along many roadways in the City of Gilroy currently exceed those considered compatible for noise-sensitive land uses. As such, noise levels at the locations of residential and other noise-sensitive land uses allowed for under the 2040 General Plan would exceed the City of Gilroy's noise thresholds of acceptability. This is a significant, cumulative noise impact.

2040 General Plan

The implementation of 2040 General Plan Policies PH 6.1 through 6.7 and PH 6.9 would reduce potentially significant impacts associated with new noise-sensitive land use exposure to traffic noise sources to a less-than-significant level.

> **Goal PH 6:** Protect Gilroy residents from exposure to excessive noise and its effects through appropriate mitigation measures and responsive land use planning, especially in regard to noise-sensitive land uses such as schools, hospitals, and housing for seniors.

- PH 6.1 Noise and Land Use
- PH 6.2 Noise Standard Consistency
- PH 6.3 Maximum Permissible Noise Levels
- PH 6.4 Noise Study and Mitigation
- PH 6.5 Acoustical Design
- PH 6.6 Setbacks and Earth Berms
- PH 6.7 Residential Noise Standards
- PH 6.9 Transportation Noise

Policy PH 6.1 establishes a physical development pattern that is compatible with the noise environment of Gilroy, ensuring that residential neighborhoods and park areas are the quietest areas in the community. Policy PH 6.2 requires a review of development proposals to assure consistency with noise standards, using the Future Noise Contours map to determine if additional noise studies are needed for proposed development. Policy 6.2 establishes maximum permissible outdoor and indoor noise levels. Policy PH 6.4 requires a

noise study and mitigation to ensure the city's noise compatibility standards are met with new, proposed development. Policy PH 6.5, requires a consideration of the acoustical design of projects in the development review process to reduce noise to an acceptable level, and ensures that noise mitigation features are designed and implemented in an aesthetically pleasing and consistent manner. Policy 6.6 requires landscaped setback and earth berms as noise mitigation alternatives to sound walls. Policy PH 6.7 requires the design of new residential development to comply with the city's noise standards. Policy PH 6.9 requires consideration of potential noise impacts when evaluating proposals for transportation projects, including road, freeway, and transit projects, and incorporate mitigation measures to meet General Plan standards.

Conclusion

The implementation of 2040 General Plan Policies PH 6.1 through 6.7 and Policy PH 6.9 would reduce the significant noise impact due to traffic noise sources to a less-than-significant level.

IMPACT	Noise-Sensitive Land Uses Could be Exposed to New Stationary and Local Noise Sources	Less Than Significant

Stationary and Local Noise Sources

Mixed-use development projects often include residential uses located above or in proximity to commercial uses, and in areas served by bus transit along major roadways. Under the Gilroy 2040 General Plan, mixed-use residential land use designations are proposed for sections west of Monterey Road in the northern and southern parts of Gilroy (Neighborhood Districts High and Low) and along 1st Street. The Downtown Specific Plan would also include mixed-use development.

Noise sources associated with commercial uses could include mechanical equipment operations, public address systems, parking lot noise (e.g., opening and closing of vehicle doors, people talking, car alarms), delivery activities (e.g., use of forklifts, hydraulic lifts), trash compactors, and air compressors. These elevated noise levels, which have the potential to be generated by commercial uses within mixed-use developments, would expose nearby noise-sensitive land uses to noise levels that exceed the city's noise standards.

Noise sources associated with industrial uses could include rotors, stators, gears, fans, vibrating panels, turbulent fluid flow, impact processes, electrical machines, and internal combustion engines. Placement of residential uses within close proximity to industrial uses would also have the potential to expose residents to increased noise levels in exceedance of city noise standards. Conversely, the industrial uses could be subject to new noise standards to ensure noise level compatibility with nearby residential and mixed-use neighborhoods. Industrial uses could be subject to new limitations for noise intensive activities to keep noise levels at nearby residential and mixed-use neighborhoods within city noise level standards.

Areas with industrial and commercial uses in properties located on Monterey Road, West 10th Street, and 1st Street. There are also several industrial facilities within the community that contain large mechanical equipment along S.R. 152, east of Cameron Boulevard, as well as light industrial uses near the intersection of Leavesley Road and Monterey Road. Other sources of stationary noise in Gilroy include light industrial near the Highway 101/Monterey Road interchange and the rest of the area east of Highway 101 in the Gilroy Planning Area consisting of light and heavy industrial and food processing uses.

2040 General Plan

The implementation of 2040 General Plan Policies PH 6.1 through 6.8 would reduce potentially significant impacts associated with new noise-sensitive land use exposure to stationary noise sources to a less-than-significant level.

> **Goal PH 6:** Protect Gilroy residents from exposure to excessive noise and its effects through appropriate mitigation measures and responsive land use planning, especially in regard to noise-sensitive land uses such as schools, hospitals, and housing for seniors.

- PH 6.1 Noise and Land Use
- PH 6.2 Noise Standard Consistency
- PH 6.3 Maximum Permissible Noise Levels
- PH 6.4 Noise Study and Mitigation
- PH 6.5 Acoustical Design
- PH 6.6 Setbacks and Earth Berms
- PH 6.7 Residential Noise Standards
- PH 6.8 Incremental Noise Impacts of Commercial and Industrial Development

Policy PH 6.1 establishes a physical development pattern that is compatible with the noise environment of Gilroy, ensuring that residential neighborhoods and park areas are the quietest areas in the community. Policy PH 6.2 requires a review of development proposals to assure consistency with noise standards, using the Future Noise Contours map to determine if additional noise studies are needed for proposed development. Policy PH 6.3 establishes maximum permissible outdoor and indoor noise levels. Policy PH 6.4 requires a noise study and mitigation to ensure the city's noise compatibility standards are met with new, proposed development. Policy PH 6.5, requires a consideration of the acoustical design of projects in the development review process to reduce noise to an acceptable level, and ensures that noise mitigation features are designed and implemented in an aesthetically pleasing and consistent manner. Policy PH 6.6 requires landscaped setback and earth berms as noise mitigation alternatives to sound walls. Policy PH 6.7 requires the design of new residential development to comply with the city's noise standards. Policy PH 6.8 requires a

review of proposed new or expanding commercial and industrial development shall consider potential noise impacts on nearby residential uses and, as necessary, shall require noise mitigation measures as a condition of project approval.

Conclusion

The implementation of 2040 General Plan Policy PH 6.1 through Policy PH 6.8 would reduce potentially significant impacts associated with new noise-sensitive land use exposure to stationary noise sources to a less-than-significant level.

IMPACT	Construction Noise Would Cause a Temporary or Periodic Increase in Noise Exposure Above Ambient Noise Levels	Less Than Significant

Buildout of the 2040 General Plan would facilitate the construction of new projects throughout the city. Residences, businesses, and other land uses located adjacent to development sites would be affected at times by construction noise. Temporary construction-related noise would be considered significant if noise levels would exceed 60 dBA L_{eq} (the maximum permissible outdoor noise level for residential land uses) at residential land uses or 70 dBA L_{eq} at industrial, office, or commercial land uses for a period of more than one construction season.

Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive receptors. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours), when construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction durations last over extended periods of time.

Major noise-generating construction activities associated with new projects would include removal of existing pavement and structures, site grading and excavation, installation of utilities, the construction of building foundations, cores, and shells, paving, and large-scale landscaping. The highest noise levels are typically generated during the demolition of existing structures when impact tools are used (e.g., jackhammers, hoe rams) and during the construction of building foundations when impact pile driving may be required to support the structure. Site grading and excavation activities would also generate high noise levels as these phases often require the simultaneous use of multiple pieces of heavy equipment, such as dozers, excavators, scrapers, and loaders. Lower noise levels result from building construction activities when these activities move indoors and less heavy equipment is required to complete the tasks.

Construction equipment would typically include, but would not be limited to, earth-moving equipment and trucks, pile driving rigs, mobile cranes, compressors, pumps, generators,

paving equipment, and pneumatic, hydraulic, gas, and electric tools. Construction noise levels would vary by phase and vary within phases based on the amount of equipment in operation and location where the equipment is operating.

Per City of Gilroy Code Section 16.38, construction is limited to between the hours of 7:00 a.m. and 10:00 p.m. Monday through Friday and 9:00 a.m. and 7:00 p.m. on Saturdays. Gilroy does not establish quantitative noise limits for demolition or construction activities occurring in Gilroy. Noise generated by small infill projects facilitated by the Gilroy 2040 General Plan would likely have relatively short overall construction durations, with the noisiest phases of construction (e.g., demolition, foundations, project infrastructure, building core, and shell) limited to a timeframe of one year or less. These phases of construction are not anticipated to generate noise levels in excess of 60 dBA L_{eq} (the maximum permissible outdoor noise level for residential land uses) at sensitive land uses in the area over extended periods of time (beyond one construction season). Interior construction, landscaping, and finishing activities would not be expected to result in noise levels in excess of 60 dBA L_{eq} at off-site locations. Large construction projects associated with future development facilitated by the Gilroy 2040 General Plan, such as construction associated with the adopted specific plans, may result in a substantial temporary noise increase at adjacent noise-sensitive land uses. As a result, noise levels from these projects could exceed 60 dBA L_{eq} and last over one year in duration.

2040 General Plan

The implementation of 2040 General Plan Policies PH 6.10 and PH 6.11 would reduce potentially significant impacts associated with temporary noise increases due to construction, but not to a less-than-significant level.

> **Goal PH 6:** Protect Gilroy residents from exposure to excessive noise and its effects through appropriate mitigation measures and responsive land use planning, especially in regard to noise-sensitive land uses such as schools, hospitals, and housing for seniors.

- PH 6.10 Construction Noise Study
- PH 6.11 Construction and Maintenance Noise Limits

Policy PH 6.10 requires proposed development projects subject to discretionary approval to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on those uses. Policy PH 6.11 limits the hours of construction and maintenance activities.

Conclusion

The potentially significant short-term noise impacts associated with construction of future development facilitated by buildout of the Gilroy 2040 General Plan would be mitigated to a less-than-significant level with implementation of Municipal Code section 16.38, as well as proposed 2040 General Plan policies PH 6.10 and PH 6.11.

IMPACT	Demolition and Construction Activities Vibration Levels	Less Than Significant

Project-specific demolition and construction activities required for future development associated with the Gilroy 2040 General Plan project may generate perceptible vibration levels when heavy equipment or impact tools (e.g. jackhammers, pile drivers, hoe rams) are used in the vicinity of nearby sensitive land uses.

Heavy tracked vehicles (e.g., bulldozers or excavators) can generate distinctly perceptible ground-borne vibration levels when this equipment operates within approximately 25 feet of sensitive land uses. Impact pile drivers can generate distinctly perceptible ground-borne vibration levels at distances up to about 100 feet, and may exceed building damage thresholds within 25 feet of any building, and within 50 to 100 feet of a historical building, or building in poor condition. Table 14 found in the noise assessment provides vibration source levels for construction equipment

2040 General Plan

The implementation of 2040 General Plan Policies PH 6.12 and PH 6.13 would reduce potentially significant vibration levels associated with demolition and construction to a less-than-significant level.

> **Goal PH 6:** Protect Gilroy residents from exposure to excessive noise and its effects through appropriate mitigation measures and responsive land use planning, especially in regard to noise-sensitive land uses such as schools, hospitals, and housing for seniors.

- PH 6.12 Vibration Impact Assessment
- PH 6.13 Transportation Vibration

Policy PH 6.12 requires a vibration impact assessment for proposed development projects in which heavy-duty construction equipment would be used (e.g. pile driving, bulldozing) within 200 feet of an existing structure or sensitive receptor. Policy PH 6.13 requires proposed residential and commercial projects located within 200 feet of existing major freeways and railroad lines to conduct a ground vibration and vibration noise evaluation consistent with city-approved methodologies.

The implementation of 2040 General Plan Policy PH 6.12 would reduce the potentially significant vibration impacts associated with demolition and construction activities to a less-than-significant level by establishing safe limits to protect structures from potential damage and would minimize potentially significant vibration impacts on people and businesses.

Conclusion

The implementation of 2040 General Plan policies PH 6.12 and PH 6.13 would reduce the potentially significant vibration impacts associated with demolition and construction activities to a less-than-significant level by requiring a vibration impact assessment for

proposed development projects that require heavy-duty construction equipment within 200 feet of an existing structure or sensitive receptor, of within 200 feet of an existing major freeway or railroad line.

Impacts of High-Speed Train (HST) on Sensitive Land Uses within Gilroy

Noise

Impacts of the HST are not the impacts of general plan implementation. CEQA requires an EIR to evaluate the proposed project's impact on the environment, not the environment's impact, or the effects of a future project, on the proposed project. However, for information purposes, the noise impacts of the future HST on sensitive land uses along the rail line, are discussed here.

The 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 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).

Train operations include the existing UPRR rail line, which includes both freight and passenger trains, and the California high-speed Train (HST), which has been proposed to pass through Gilroy and would include a station in Downtown Gilroy.

Railroad train noise from operations on the UPRR tracks was assumed to be similar to existing conditions, generating a noise level of about 74 dBA Ldn at a distance of 75 feet from the center of the main line. Railroad train noise levels would generally exceed 60 dBA Ldn within about 350 feet of active railroad corridors (10 to 15 trains per day). Where residential development is located adjacent to at-grade rail crossings, these sensitive uses would be subject to maximum instantaneous noise levels (L_{max}) from train warning whistles that range from approximately 90 to 110 dBA L_{max}.

The HST San Jose to Merced Section is proposed to pass through the City of Gilroy. Multiple alternative alignments and design options were under consideration for the HST section. In 2019, the California High-Speed Rail Authority selected Alternative 4 as the state's preferred alternative. Alternative 4 is a blended alternative in which high-speed rail will be placed at grade throughout Gilroy on an alignment parallel to the existing UPRR tracks. The maximum operational speed through Gilroy is expected to be 110 mph. This would effectively become another source of noise and vibration within the Monterey Road/UPRR corridor. Residential and commercial uses currently border portions of this alignment. Additionally, neighborhood residential and mixed-use areas are proposed along this corridor. The city plans to update the Downtown Specific Plan to include the development of the HST line and station.

Representative noise and vibration data for the proposed California High-Speed Rail Project was obtained from various sources, including data from published environmental documents that have studied the project and data provided by the California High-Speed Rail Authority, most of which appears to have been based upon the U.S. DOT High-Speed Ground Transportation Noise and Vibration Impact Assessment. Noise and vibration studies and environmental impact reports (EIRs) that were utilized in this assessment were programmatic, as specific development plans for the HST have not been finalized.

Noise associated with the HST would have an effect on future noise sensitive land uses along the rail line. These land uses, as depicted on the Gilroy 2040 General Plan Land Use Diagram - Preferred Alternative, include Visitor-Serving Commercial, Downtown Specific Plan, and City Gateway District.

For the purpose of this analysis, credible worst-case assumptions were made regarding the speed, frequency, location of right-of-way, and other factors. This analysis assumes that trains will travel at-grade at maximum speeds of 110 mph. During peak periods and full build-out of the high-speed rail system, approximately 10 to 12 trains are expected to travel past the site per hour in each direction. During off-peak periods, 6 to 8 trains are expected per hour in each direction. Trains would not travel between the hours of midnight and 5:00 a.m.

Using data from the California HST Program EIR/EIS, day-night average noise levels are anticipated to range from 65 to 70 dBA L_{dn} at a distance of 200 feet, and maximum noise levels generated by a passing HST are anticipated to reach approximately 75 to 80 dBA L_{max}. The HST would make an incremental contribution to the total noise level of less than 1 dBA L_{dn}, and maximum noise levels from trains passing by would be below the noise levels generated by trains and trucks utilizing the existing corridor.

The implementation of Proposed General Plan Policies PH 6.1, and PH 6.3 through 6.7 would assist the City of Gilroy in working with the High-Speed Rail Authority in mitigating the HST noise impacts on existing and future residents in Gilroy.

Goal PH 6: Protect Gilroy residents from exposure to excessive noise and its effects through appropriate mitigation measures and responsive land use planning, especially in regard to noise-sensitive land uses such as schools, hospitals, and housing for seniors.

- PH 6.1 Noise and Land Use
- PH 6.3 Maximum Permissible Noise Levels
- PH 6.4 Noise Study and Mitigation
- PH 6.5 Acoustical Design
- PH 6.6 Setbacks and Earth Berms
- PH 6.7 Residential Noise Standards

2040 General Plan Policies PH 6.1 through PH 6.7, in conjunction with the proposed Indoor and Outdoor Noise Standards shown in General Plan Table 9-1, would require that the compatibility standards be used to determine where noise levels in the community are acceptable or unacceptable, and require noise attenuation measures to achieve the acceptable noise level standards. Noise studies of new development proposals are required when existing or future noise levels from transportation or non-transportation noise sources are expected to exceed the acceptable levels for that use in order to determine the controls necessary to maintain consistency with the interior and exterior noise standards. Policy PH 6.6 identifies noise-reducing measures, such as the requirement that setbacks or noise barriers, are included in the design of roadway, freeway, and rail improvement projects to reduce noise levels. The proposed goals and policies of the Potential Hazards Element reduce potential impacts associated with noise and land use compatibility.

Recommendation

- The following additional policy is recommended to be added to the Potential Hazards Element of the City of Gilroy's 2040 General Plan.
- Proposed Additional Policy PH 6.14 High-Speed Rail. The City of Gilroy should continue to coordinate with the California High-Speed Rail Authority to ensure that HST incorporates appropriate mitigation measures.

Ground Vibration

Development facilitated by the General Plan could expose persons to excessive ground-borne vibration levels attributable to existing UPRR and proposed future HST trains. The precise locations of future buildings and their specific sensitivity to vibration are not known at this time, however, such uses located in proximity to the UPRR or HST tracks could be exposed to ground vibration levels exceeding FTA guidelines.

Railroad trains are a source of ground-borne vibration when receptors are located close to the tracks. Many factors influence levels of ground-borne vibration from trains experienced in buildings, including operational factors, geology, building construction, train speed, and track type. The FTA has developed vibration impact assessment criteria for evaluation vibration impacts associated with rapid transit projects.

There is one existing rail line in Gilroy, a UPRR main-line, running north-south adjacent to Monterey Road. This line transects the city and carries both passenger and freight train traffic. Approximately 12 to 16 trains pass through Gilroy on this rail line daily, including six Caltrain passenger trains, two Amtrak passenger trains, and four to eight freight trains. With increased rail service to Gilroy announced by Caltrain in 2019, along with the eventual introduction of the HSR project (discussed below), rail traffic along the line is anticipated to increase to up to 30 trains per day, and future train activity would be considered "occasional" with respect to the FTA vibration impact criteria. Since many of these trains pass during evening and nighttime hours when people are normally at rest, the 75 VdB limit is used to characterize the vibration compatibility. 75 VdB would be measured

approximately 85 to 90 feet from the center of the main railroad track. Ground-borne vibration levels from train passbys along this rail line range from 79 to 80 VdB at a distance of 50 feet from the center of the main railroad track, 73 to 74 VdB at a distance of 100 feet from the center of main railroad track, and 68 VdB at a distance of 200 feet from the center of main railroad track during freight and passenger train pass-by events. Residences proposed within 45 feet of the center of the main rail line could be exposed to vibration levels exceeding 80 VdB.

In addition to the existing rail line, the HST San Jose to Merced section is proposed to pass through the City of Gilroy. In 2019, the California High-Speed Rail Authority has released staff-recommended preferred alternatives for two sections of the high-speed rail routes in Northern California. The authority staff recommended an alternative that includes a blended configuration between San Jose and Gilroy in the existing Union Pacific Railroad corridor and then connects to a dedicated high-speed rail alignment through Pacheco Pass (California High-Speed Rail Authority 2019). For the purposes of this analysis, assumptions were made regarding these factors to predict vibration levels from HST at the nearest receptors. Steel-wheel technology is regarded as the type of train system that will be implemented, with wheels in proper working condition (e.g., no worn wheels or wheels with flats). The analysis again assumes that the maximum speed would be up to 110 mph and the design option would be at-grade. During peak periods and full build-out of the HSR, approximately 10 to 12 trains are expected to travel through the city per day in each direction. During off-peak periods, 6 to 8 trains are expected per day in each direction. Trains would not travel between the hours of midnight and 5:00 a.m. As a result, the 72 VdB vibration limit would apply.

Using data from the California HST Program EIR/EIS, the vibration level at a distance of 200 feet from the tracks, resulting from a train traveling at-grade at 110 mph, would be about 69 VdB. The impact threshold is 72 VdB, so the threshold would not be exceeded as trains pass through Gilroy. As development proceeds and by utilizing appropriate adjustment factors, vibration levels can be adjusted up or down based on known conditions.

The implementation of 2040 General Plan Policy PH 6.13 and Proposed Additional Policy PH 6.14, above, could reduce potential impacts associated with vibration from railroad train operations.

> **Goal PH 6:** Protect Gilroy residents from exposure to excessive noise and its effects through appropriate mitigation measures and responsive land use planning, especially in regard to noise-sensitive land uses such as schools, hospitals, and housing for seniors.

PH 6.13 Transportation Vibration

The implementation of 2040 General Plan Policy PH 6.13 and recommended Additional Policy PH 6.14 could assist in reducing significant vibration rail impacts. However, the impacts of rail vibration are beyond the control of the City of Gilroy.

3.13 POLICE PROTECTION FACILITIES

This section discusses the potential impacts of the proposed project on police facilities and services that could lead to physical changes in the environment, and therefore, possibly result in environmental impacts. Unless otherwise noted, the information contained within this section is based on the Gilroy 2040 General Plan Background Report (Mintier Harnish 2014). The background report is available for review on the city's website at http://www.gilroy2040.com/documents/.

No comments regarding police protection facilities and services were received in response to the original and revised NOP.

Environmental Setting

The City of Gilroy Police Department (police department) provides police protection services throughout Gilroy. The police department operates out of the station located at 7301 Hanna Street. The city is divided into four response areas. Figure 3.13-1, City of Gilroy Police Response Areas, illustrates the existing police response areas. Police response is usually by officers on patrol in the field, so proximity to police office buildings is not critical. Areas outside of the existing response areas, but within the within the proposed Urban Growth Boundary are currently within the jurisdiction of the Santa Clara County Sheriff's Office (Sheriff). The Sheriff's enforcement division has its South County office in San Martin, north of Gilroy.

Police department personnel are employed in three divisions: Field Operations, Special Operations, and Administration. The city has adopted a Public Facilities Impact Fee whereby funds are paid by new residential, commercial, and industrial development projects to finance expansion of police, fire, parks and recreation, library and general public facilities. Community Facilities Districts are required for certain types of residential development and could be used to augment police services funding.

Response Times

In 2019, the police department responded to 40,828 calls (Scot Smithee, email message, February 3, 2020). The response times range depending on the priority of the call. According to the Gilroy Police Department Policy Manual, Section 802.3.3, Priority 1 calls are defined as calls for service that are in-progress, life threatening or have threat to life, Priority 2 calls are for service where something has occurred or is occurring and it needs an immediate public safety response, Priority 3 calls are in-progress property calls where service is needed in a location that has threat to a property, Priority 4 calls are calls for service that involve people and/or property or both and that occurred within the last five to ten minutes, Priority 5 calls are calls that involve people and/or property or both and that occurred over 20 minutes ago, and Priority 6 calls are calls for service that are initiated by Public Safety Personnel in the field or could be in-progress or prior that do not need a Public Safety

Response within a certain time or calls that are created for documentation purposes only (City of Gilroy 2018b). Table 3.13-1, Police Response Times, provides the breakdown of the response times during the 2019 fiscal year.

Table 3.13-1 Police Response Times

2019 Fiscal Year Response Times (7/1/2018 – 6/30/2019)						
Priority	1	2	3	4	5	6
Seconds	307	552	1,527	2,186	2,516	2,359
Minutes	5:08	9:13	25:28	36:26	41:56	39:20

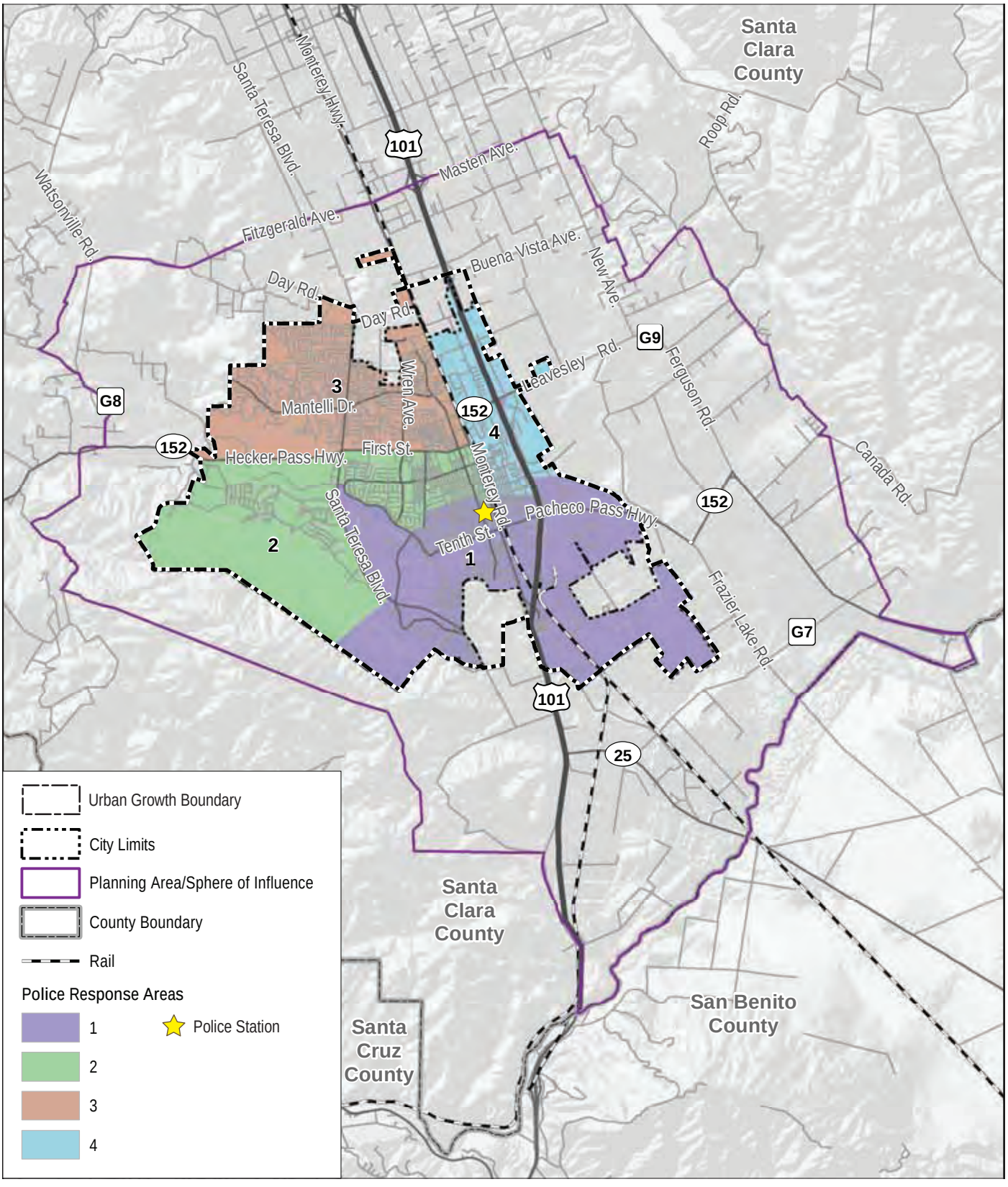
Source: David Boles, email message, October 8, 2019

Staffing

The police department is currently staffed with 105 personnel including 69 sworn officers (Scot Smithee, email message, February 3, 2020). Sworn staff includes the Chief of Police, 3 captains, 11 sergeants, 8 corporals, and 46 police officers. The city has a staffing goal for sworn patrol officers that allows for a minimum 33 percent available time to engage in proactive officer generated law enforcement activities. Non-sworn staff required to support police operations are 38 percent of the total department employees (Scot Smithee, written communications, April 24, 2020). Facility needs are calculated at 273 square feet of office space per police employee (Edward J. Gee & Associates 2004). The current police facility opened in May 2007 and was designed for 40-year use (Scot Smithee, email message, February 10, 2020). As of January 1, 2019, the City of Gilroy had a population of 55,928 (California Department of Finance 2019), which equates to a service ratio of 1.17 officers per 1,000 persons. The 2020 General Plan Policy 18.01, Standards of Service, calls for average emergency response times from police services of approximately 4.5 minutes, which is currently not being met.

Santa Clara County Sheriff

Some portions of the Gilroy 2040 General Plan Planning Area/Sphere of Influence include unincorporated areas that are under the jurisdiction of the Santa Clara County Sheriff's Department. The Sheriff's Department employs 2,025 staff including 1,429 full-time sworn, badge officers and 572 civilian staff. The Sheriff's Department is divided into an Enforcement Bureau and a Custody Division. The Headquarters Patrol Division operates out of the County of Santa Clara Office of the Sheriff located at 55 West Younger Avenue in San Jose (Scot Smithee, written communications, April 24, 2020). The unincorporated areas surrounding Gilroy are patrolled by units from the South County Sub-Station located at 80 West Highland Avenue in San Martin.



Source: City of Gilroy 2018, Esri 2015

Figure 3.13-1

City of Gilroy Police Response Areas

Gilroy 2040 General Plan EIR

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California Highway Patrol

The California Highway Patrol provides traffic safety and enforcement services on unincorporated roadways and State highways. The California Highway Patrol is also responsible for:

- assisting in emergencies exceeding local capabilities;
- providing disaster and lifesaving assistance;
- truck and bus inspections;
- air operations (both airplanes and helicopters);
- vehicle theft investigation and prevention;
- protecting State property and employees, the Governor, and other dignitaries; and
- public education on driver safety issues.

Gilroy is located in the Coastal Division, within which the CHP operates one of eleven area offices at 740 Renz Lane in Gilroy. The Coastal Division also includes one resident post, two commercial vehicle inspection stations, and three communication/dispatch centers. The Coast Division employs 530 uniformed officers and 162 non-uniformed officers.

Regulatory Setting

Gilroy Police Department Master Plan Update and Nexus Report

The *Gilroy Police Department Master Plan Update and Nexus Report* (master plan) (Edward J. Gee & Associates 2004) forecasts the police department needs to serve buildout conditions identified by the 2020 General Plan. The master plan was intended to anticipate future changes in police operations and technology as well as the needs of the police department going forward. A new police facility was included in the master plan, which has been constructed. In August 2009, the police department implemented a five-year review period whereby the department would release an updated Strategic Plan every five years to establish department goals, initiatives, and highlight efforts currently being undertaken to combat crime and establish better community relations. The *Gilroy Police Department Strategic Plan Update 2016-2019*, the most recent Strategic Plan, was released in April 2016.

Threshold of Significance

The City of Gilroy CEQA thresholds of significance state that a project may have a significant effect on the environment if it would:

- result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection.

Analysis, Impacts, and Mitigation

IMPACT	No Requirement for Alteration or Construction of New Police Protection Facilities	No Impact

Growth allowed under the proposed Gilroy 2040 General Plan would result in a population increase. The city would continue to provide police services within the city limits, which would expand as lands outside of the city limits, but within the Urban Growth Boundary are annexed. Additional staff, equipment and possibly eventually facilities would be required to maintain an acceptable level of service for projected growth.

At 2040 General Plan buildout, the population of Gilroy would be approximately 73,430 persons (based on an increase of 17,502 persons), which would require approximately 110 sworn officers (an additional 41 sworn officers) plus 68 non-sworn staff for a total of 178 personnel. When the 273-square-feet per personnel standard (City of Gilroy 2004, pp. 4-5) is applied to buildout projections, approximately 48,594 square feet of police facility space would be necessary to accommodate a projected staff size of 178. The police department's current facility is approximately 49,000 square feet in size. Therefore, the current police station is adequately sized to accommodate the increase in staff and the construction of a new or modified police station is not required. No further discussion is required.

Conclusion

Buildout of the Gilroy 2040 General Plan would have no impact on police protection facilities.

3.14 FIRE PROTECTION FACILITIES

This section discusses the potential impacts of the proposed project on fire prevention and protection facilities and services that could lead to physical changes in the environment. Unless otherwise noted, the information contained within this section is largely based on the *Gilroy 2040 General Plan Background Report* (Mintier Harnish 2014). The background report is available for review on the city's website at http://www.gilroy2040.com/documents/.

No comments regarding fire protection facilities were received in response to the original and revised NOP.

Environmental Setting

City of Gilroy

The Gilroy Fire Department is an "all risks" department that responds to fires of all types, emergency medical incidents, rescue situations of any kind, hazardous conditions and other related emergencies such as public assistance and water removal. Gilroy Fire Department's mission is to protect the lives, property, and environment of the Gilroy community by

employing the latest fire, rescue, emergency medical service, and prevention technologies in a spirit of teamwork and integrity.

The Gilroy Fire Department is comprised of two divisions: Administration and Field Operations. The Administration division is responsible for managing the department's business transactions. The Administration division provides leadership direction and oversight necessary to deliver services in a cost-effective manner. The Operations division includes three sub-divisions: Field Operations, Training, and Emergency Medical Services (EMS). Each sub-division is managed by a Division Chief who provides direction and oversight to their assigned platoon. The Operations Division is responsible for the planning, organization, and management to ensure operational readiness and effective response of all emergency response resources. The Training and EMS Division is responsible for ensuring that emergency response personnel are well trained and are able to provide a response force that effectively responds to an emergency. Administration provides management oversight to the Fire Department, while also planning and directing the current and future activities of the department.

The city's development impact fee for fire services is part of the Public Facilities Impact Fee, which also covers police services, library services, parks and recreation facilities, and city facilities. Development fee levels vary according to the type of development proposed, based on city determinations on the cost to provide the service or improvement for specific projects. Community Facilities Districts are often used for development projects to augment fire services and facilities funding.

Facilities and Equipment. The Gilroy Fire Department has three fire stations: Fire Station 1-Chestnut Station, located at 7070 Chestnut Street, Fire Station 2-Las Animas Station, located at 8383 Wren Avenue, and Fire Station 3-Sunrise Station located at 880 Sunrise Drive. The locations of existing Gilroy Fire Department stations are included in Figure 3.8-1, Fire Hazard Severity Zones, in Section 3.8, Hazardous Materials and Wildland Fire Hazards, of this EIR. The city has undertaken significant steps towards adding a fourth fire station in the southwest Glen Loma area in partnership with a developer. In the interim, the city is pilot-testing a two-firefighter Alternative Service Model unit that will temporarily serve the Glen Loma area until the construction of a permanent fire station facility (Citygate Associates 2019).

The Gilroy Fire Department's jurisdiction covers territory within the city limits and provides services to approximately 56,000 people. Three fire engines are staffed on a daily basis, one at each Station. All engines are staffed with three person companies. Each station is staffed with at least one certified firefighter/paramedic for each apparatus that provides Advanced Life Support. Additionally, each of the 24-hour operations shifts has an on-duty Battalion Chief to provide incident command at emergencies and to manage the day-to-day operations of each work shift.

The Gilroy Fire Department also maintains additional specialized apparatus resources that can be staffed on an "as needed" basis. An aerial ladder truck can be placed in service instead of an engine, or it can be placed in service using call-back personnel or paid call firefighters. Wildland fire apparatus are placed in service as companion vehicles to the engine companies during wildland fire season.

Staffing. The Gilroy Fire Department employs 41 authorized full-time staff members. Staff members include: one fire chief, three division chiefs, nine fire captains, nine fire engineers, 16 firefighters/paramedics, one management analyst, one management assistant, and one admin captain (Jennifer Fortino, email message, February 25, 2020). The Gilroy Fire Department has a daily staffing of 10-12 personnel (Citygate Associates 2019).

The Gilroy Fire Department's targeted service threshold ratio of personnel to population is one firefighter per 1,000 residents. The department currently maintains a ratio of 0.74 firefighters per 1,000 residents, which is below the target standard. As of January 1, 2019, the City of Gilroy had a population of 55,928 (California Department of Finance 2019). The Gilroy Fire Department would need 15 additional firefighters or 56 firefighters total in order to reach the city's standard for personnel under 2019 conditions.

Emergency Operations. Emergency Response Operations services are provided through the three Gilroy Fire Department stations. Emergency Response services are available 24 hours per day, 365 days per year and are staffed in three rotating 24-hour shifts. Dispatching is provided by the Gilroy Police Department, Emergency Medical Service calls are transferred to Santa Clara County Communications, which uses emergency medical dispatch protocol and provides transport dispatch. The Santa Clara County EMS agency has established a 90 percent compliance standard for medical emergency calls. All participating providers must meet the response time criteria set forth by the Santa Clara County EMS agency, including the Gilroy Fire Department. The County goal is to have a paramedic on scene within eight minutes.

Gilroy Firefighters have Emergency Medical Training and can provide the first response to medical emergencies. 16 firefighters are licensed paramedics (Jennifer Fortino, email message, February 25, 2020). Paramedics contracted by the county serve the entire county and provide services to the city under contract. The county 911 ambulance provider provides paramedic transport services to area hospitals. The 911 ambulance provider for Santa Clara County is Rural/Metro. Mobile Area Routing and Vehicle Location Information System is a product of Bradshaw Consulting Services. Rural/Metro has contracted with Bradshaw Consulting Services to use the local information system for real-time communications and deployment.

Certain medical emergencies or trauma patients are required by county policy to be seen at a facility that can meet their needs. The regional trauma hospitals are Valley Medical Center, Regional Medical Center, and Stanford Hospital. The local hospital is St. Louise Hospital, ambulance service is also provided to emergency departments at O'Conner Hospital and El Camino Hospital.

Performance Objectives. In 2019, the Gilroy Fire Department responded to a total of 5,996 calls, with an average response time of 7:05 minutes (Jennifer Fortino, email message, February 25, 2020). In the City of Gilroy, four fire engines (three from Gilroy and one from the South Santa Clara County Fire Protection District) and two Battalion Chiefs are dispatched simultaneously as a first alarm assignment to structure fires (Mintier Harnish 2014).

Guidelines for response times are established by the National Fire Protection Association, the recommended performance objective is six minutes at least 90 percent of the time. The *2019 Master Plan Update City of Gilroy Fire Department*, adopted by the City Council in December 2019, establishes the following response time standards to be achieved 90 percent of the time:

- Call Processing/Dispatch: 1:30 minutes;
- Crew Turnout: 2:00 minutes; and
- First-Due Travel: 4:00 minutes.

As a result, the Fire Department's first-due emergency response time standard is a total of 7:30 minutes, 90 percent of the time. The best practice goal for an Effective Response Force (ERF) is 11:30 minutes, 90 percent of the time. An ERF consists of at least 13 personnel, including one Chief Officer. One mutual aid engine and Chief Officer should also arrive as soon as possible to provide a total ERF of 17 personnel.

South Santa Clara County Fire District

For unincorporated areas within the Gilroy 2040 General Plan Planning Area/Sphere of Influence, Gilroy Fire Department and South Santa Clara County Fire District have an automatic aid agreement. The City of Gilroy is very dependent on the South Santa Clara County Fire District for both first-due and Effective Response Force staffing capacity (Citygate Associates 2019).

The South Santa Clara County Fire District serves the unincorporated areas of Santa Clara County south of the San Jose city limits. This area has a population of about 36,000 residents. The Masten Station is staffed by a minimum three-person crew. Apparatus at the station includes a standard fire engine, paramedic engine, water tender, reserve engine, air support trailer, and two utility vehicles. The Masten Station has five bays for apparatus, including a large center bay. The South Santa Clara County Fire District operates four other fire stations, one on Hecker Pass Highway west of Gilroy, one on Pacheco Pass Highway east of Gilroy, and one near Morgan Hill. The fire district contracts with CalFire to provide fire and emergency services in the region (South Santa Clara County Fire District 2014).

Automatic Aid Agreements

Automatic Aid Agreement. As noted previously, the City of Gilroy and the South Santa Clara County Fire District have an automatic aid agreement that allows aid to be provided on an as-needed basis between the two during major emergencies. The Gilroy Fire Department provides additional resources to South Santa Clara County during an

emergency event through its automatic aid agreement. The South Santa Clara County Fire District provides staffing and engines to assist the Gilroy Fire Department when they are available.

The Santa Clara County Local Fire Service and Rescue Mutual Aid Plan includes: CalFIRE, Santa Clara County Fire Department, Morgan Hill Fire Department, Gilroy Fire Department, Milpitas Fire Department, Moffett Field Fire Department, Mountain View Fire Department, Palo Alto Fire Department, San Jose Fire Department, Santa Clara Fire Department, South Santa Clara County Fire District, and Sunnyvale Department of Public Safety. The Santa Clara County Fire Chiefs Association has agreed on a process that will allow agencies to provide minimum coverage in their jurisdictions, when their own resources are depleted. This process provides for mutual aid units to move into neighboring jurisdictions to help provide continued fire and EMS coverage.

The City of Gilroy is also a member of the California Master Mutual Aid System. The California Master Mutual Aid Agreement establishes a formal process where jurisdictions can give and receive fire or emergency assistance to other members within their mutual aid region whenever it is needed. The City of Gilroy is within the Mutual Aid Region II or the Coastal Region. Unlike automatic aid, mutual aid services must be requested by the community in need only after all resources have been exhausted.

California Department of Forestry and Fire Protection (CalFire)

CalFire is responsible for fire protection services on all State Responsibility Area lands (refer to Figure 3.8-1). State Responsibility Areas are defined as "Lands exclusive of cities and Federal lands regardless of ownership, classified by the State Board of Forestry as areas in which the primary financial responsibility for preventing and suppressing fires is that of the State." The existence of these zones creates an interface requirement between the Gilroy Fire Department and the California Department of Forestry and Fire Protection. The Gilroy Fire Department has also signed a "Mutual Threat Zone" agreement with the California Department of Forestry and Fire Protection. This agreement provides resources for those areas within the southern and western portions of Gilroy that are designated as urban/wildland interface zones.

Regulatory Setting

California Fire Code

The 2019 California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes regulations to safeguard against hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout the State of California. 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 Health and Safety Code

Additional state fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code, which include regulations for building standards, fire protection and notification systems, fire protection devices such as extinguishers, smoke alarms, high-rise buildings, childcare facility standards, and fire suppression training. California Occupational Safety and Health Administration

In accordance with the California Code of Regulations, Title 8 Sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Fighting 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.

2019 Master Plan Update City of Gilroy Fire Department

The *2019 Master Plan Update City of Gilroy Fire Department* (Citygate Associates 2019) presents an overview of Gilroy and the Gilroy Fire Department as well as detailed analysis of the department's ability to deploy and mitigated emergency risks within the city, including analysis of future growth, community risk, operational deployment capabilities and performance, future service needs, and alternatives to current dispatch services and the department's record management system. Information in this master plan is referenced throughout this section of the EIR.

Thresholds of Significance

The City of Gilroy CEQA thresholds of significance state that a project may have a significant effect on the environment if it would:

- Result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection. A project would have a significant impact if it would require physical changes (new or altered facilities) to ensure an average emergency response time of less than 7:30 minutes 90 percent of the time.

Analysis, Impacts, and Mitigation

IMPACT	Requirement for Alteration or Construction of New or Modified Fire Service Facilities	Less Than Significant

Growth anticipated by the proposed Gilroy 2040 General Plan would result in a substantial population increase and a subsequent increase in demand for fire prevention and emergency services. At buildout, the population of Gilroy is estimated to be 73,430, which would require an additional 33 firefighters or a total of 74 firefighters to meet the Gilroy Fire Department's target staffing standard of one firefighter per 1,000 people.

The Gilroy Fire Department's area of responsibility would be expanded to include the Urban Growth Boundary, and potentially the adjacent streets. Fire apparatus can typically respond to (engage apparatus and travel to) locations that are within 2.5 road miles of the station in five minutes (EMC Planning Group 2015, p. 3-324). However, this can be affected by the circulation system layout, traffic calming devices, traffic conditions, temporary street routing during construction, calls in progress (including out-of-district calls), and similar factors. When call volume increases, the in-district station staffing responds to other areas. This takes the in-district crew and apparatus out of the area and other stations then respond in place. In order to better serve a region, additional staff and apparatus can be stationed in an area. However, this would require that an existing station is able to accommodate the additional staff and/or apparatus. If an existing station is at capacity for staffing this could require an expansion of Fire Department facilities. Additional staff, equipment and facilities would be required to maintain an acceptable level of service and adequate response times. Construction of new fire facilities could result in a potentially significant impact.

The *2019 Master Plan Update City of Gilroy Fire Department* mapping suggests that the South Santa Clara County Fire District is likely to continue to provide fire services to at least portions of the Urban Growth Boundary until the Gilroy Fire Department facilities are expanded (Citygate Associates 2019, Volume 2).

As noted in the existing setting discussion above, the city has undertaken significant steps towards adding a fourth fire station in the southwest Glen Loma area in partnership with a developer. According to the Gilroy Dispatch, on December 4, 2019, the City Council approved revised plans for the proposed facility within the Glen Loma Ranch Specific Plan area. Expected operational date is 2022. The environmental impacts of construction of the fire station were evaluated in the Glen Loma Ranch Specific Plan EIR.

2040 Gilroy General Plan

The following goals and policies of the proposed Gilroy 2040 General Plan address potentially significant impacts related to an increase in demand for fire protection services that would lead to construction of or alternation to existing facilities. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs for the full policy language.

Goal PFS 1: Provide the highest level of public facilities and services feasible, consistent with the City's fiscal resources, to meet the needs of current and future residents and businesses.

- PFS 1.11 Development Impact Fees

Policy PFS 1.11 requires applicants for new development to pay Development Impact Fees for traffic circulation, water, wastewater, storm water and public facilities to offset the costs of expanding these as detailed by the impact fee nexus study.

Goal PFS 10: Provide for public health and safety by offering high quality fire and emergency-response services.

- PFS 10.1 Standards of Service
- PFS 10.5 New Development

Policy PFS 10.1 ensures that fire services are based on national performance thresholds and keep pace with development under the Gilroy 2040 General Plan.

Implementation of the above-mentioned goals and policies, including the payment of development impact fees by future developers would reduce the impacts related to an increase in demand for fire protection services associated with buildout. Project-specific environmental impacts of constructing new individual fire protection facilities to support the growth anticipated under the proposed Gilroy 2040 General Plan cannot be determined at this time because the site-specific locations and designs of future facilities are not known. The actual location of new and expanded fire facilities will depend on the pattern of growth that occurs in the city limits and proposed Urban Growth Boundary, which, other than the location for the planned Glen Loma fire station, is not known at this time. However, fire facilities are an allowed use within most land use designations included in the adopted general plan and the proposed Gilroy 2040 General Plan. It can be expected that construction and operation of future new or modified fire prevention facilities would have similar impacts as would construction and operation of other types of new development within the proposed Urban Growth Boundary.

The site-specific environmental impacts of future required new facilities would be analyzed once specific development projects for these facilities are proposed. Recognizing a future increase in demand for fire protection services, the Gilroy 2040 General Plan includes several policies to plan for and support improvements to existing fire facilities, and development of new facilities as they are needed. Additionally, the proposed policies and mitigation measures referenced in other sections of this EIR that serve to avoid or reduce potentially significant impacts from new development would also avoid or reduce potentially significant impacts of constructing and operating new fire protection facilities.

Conclusion

Implementation of the Gilroy 2040 General Plan goals and policies would reduce potentially significant impacts to fire protection services to a less-than-significant level. No additional mitigation is required.

3.15 SCHOOL FACILITIES

This section discusses the potential impacts of the proposed project on school facilities that could lead to physical changes in the environment. Unless otherwise noted, the information contained within this section is largely based on the *Gilroy 2040 General Plan Background Report* (Mintier Harnish 2014) and more recent information from the Gilroy Unified School District. The background report is available for review on the city's website at http://www.gilroy2040.com/documents/.

No comments regarding schools were received in response to the original and revised NOP.

Environmental Setting

The City of Gilroy is served by the Gilroy Unified School District (school district) for grades kindergarten through 12th grade, while a public charter school and private schools provide additional education opportunities. Gavilan College, located south of Gilroy, provides community college education in numerous fields.

Gilroy Unified School District

Table 3.15-1, Gilroy Unified School District Facilities (2018-2019), lists the school facilities within the district, their corresponding facility capacities, and student enrollment as of the 2018-2019 school year. The table utilizes facility capacity information obtained from Natalie Martinez at the school district (email message, January 27, 2020) and enrollment information from the California Department of Education (2020a). The school district boundary includes the City of Gilroy and adjacent unincorporated areas in Santa Clara County (refer to Figures 9-8 and 9-9 in the background report).

As indicated by Table 3.15-1, the school district has an existing school building capacity of 14,634 K-12 students. According to Table 3.16-1, 2018-2019 enrollment in the school district is 5,277 elementary students, 2,555 middle school students, 2,809 high school students, along with 11 students attending the school district's non-public, non-sectarian schools, for a total enrollment of 10,652 K-12 students. The school district has experienced an average decrease of 297 students per year since 2014-2018 (from 11,840 in 2014-2015, to 10,652 in 2018-2019).

The school district operates eight elementary schools, three middle schools, two high schools, one early college education academy, one continuation high school, and a community day school. In September 2019, the school district announced the planned closure of Antonio Del Buono Elementary School in the summer of 2020 due to declining enrollment. This decline is the result of many factors including a significant drop in the birth

rate, the exodus of families to parts of the state and county with lower housing costs, and lower student generation rates from new housing. Beginning in the fall of 2020, students from Antonio Del Buono Elementary School will attend either Luigi Aprea or Rucker Elementary schools (Gilroy Unified School District 2020).

Table 3.15-1 Gilroy Unified School District Facilities (2018-2019)

	Address	Facility Capacity[1]	Total Enrollment[2]
ELEMENTARY SCHOOLS (K-5)			
Antonio Del Buono	9300 Wren Avenue	698	453
El Roble	930 Third Street	691	631
Eliot	475 Old Gilroy Street	538	439
Glen View	600 West Eighth Street	420	517
Las Animas	6550 Cimino Street	935	742
Luigi Aprea	9225 Calle Del Rey	851	628
Rod Kelley	8755 Kern Avenue	776	756
Rucker	325 Santa Clara Avenue	546	577
Gilroy Prep School (Navigators School)	277 IOOF Avenue	N/A	534
Elementary Schools Total		5,455	5,277
MIDDLE SCHOOLS (6-8)			
Ascencion Solorsano	7121 Grenache Way	1,331	875
Brownell	7800 Carmel Street	1,360	782
South Valley	385 IOOF Avenue	1,212	898
Middle Schools Total		3,903	2,555
HIGH SCHOOLS (9-12)			
Gilroy	750 West Tenth Street	2,607	1,674
Christopher	850 Day Road	2,037	1,629
Dr. TJ Owens Gilroy Early College Academy	5055 Santa Teresa Blvd. (Gavilan College)	432	305
Mount Madonna Continuation	8750 Hirasaki Court	200	201
High Schools Total		5,276	2,809
District Non-Public, Non-Sectarian Schools		N/A	11
District Total		14,634	10,652

Source: Natalie Martinez 2020, California Department of Education 2020a.

Notes:

1. Facility Capacity provided by Natalie Martinez, Administrative Secretary, Business Services, Gilroy Unified School District.
2. Enrollment obtained from California Department of Education, DataQuest.

According to information obtained from the California Department of Education website (2020b), the school district employed about 605 persons, including 526 teachers in the 2018-2019 school year.

Public Charter School

One charter school, the Gilroy Preparatory School (Gilroy Prep), is located within the city of Gilroy at 277 IOOF Avenue. Charter schools function like a small independent school district and accept students across neighborhoods and districts. Gilroy Prep serves kindergarten through the eighth grade. In the school year 2018-19, a total of 534 students were enrolled in Gilroy Prep (California Department of Education 2020a).

Private Schools

Two private schools are located in Gilroy: one K-12 school, Pacific Point Christian School (located at 1575 Mantelli Drive and operated by South Valley Community Church in Gilroy), and one elementary/middle school, St. Mary School (located at 7900 Church Street operated by Catholic Diocese of San Jose). According to the California Department of Education's Private School Affidavit Data (2020c), enrollment for the 2019-20 academic year at the Pacific Point Christian School was 323 and at the St. Mary School was 236.

Gavilan College

Gavilan College is a community college located on about 150 acres immediately south of Gilroy at 5055 Santa Teresa Boulevard. The college offers 70 programs in vocational, academic, and technical education, leading to an Associate of Arts or Associate of Science degree, as well as 58 certificate programs. Enrollment for the 2015-16 academic year was 53,208 (Gavilan College 2017).

Regulatory Setting

State School Mitigation Fees

Senate Bill 50 established standard fees for mitigation of impacts on schools. The payment of the development fees authorized by Education Code section 17620 fully mitigates the impacts of providing adequate school facilities resulting from any legislative or adjudicative act. California Education Code section 17620 et seq. authorizes the collection of developer fees, California Government Code section 65995 et seq. establishes the types of fees and rates, California Government Code section 66000 sets the process for justifying fees and appealing or challenging fees. California Government Code sections 65995.5 – 65995.7 establish the procedures for the adoption of Level 2 fees.

Threshold of Significance

The City of Gilroy CEQA thresholds of significance state that a project may have a significant effect on the environment if it would:

- result in substantial adverse physical impacts associated with the provision of or need for new or physically altered public school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable performance objectives for public schools. Lack of payment of required mitigation fees to offset costs of providing necessary public schools would constitute a significant impact.

Analysis, Impacts, and Mitigation

IMPACT	Requirement for Alteration or Construction of New or Modified School Facilities	Less Than Significant

Future development of residential land uses consistent with the Gilroy 2040 General Plan would increase the number of school-aged children and increase demand for school services. An increase in service demand that exceeds the capacity of existing school facilities that would require the construction of new or expanded public school facilities is a significant impact. Table 3.15-2, Gilroy Unified School District Student Generation Rates, illustrates student generation rates for single- and multi-family residential uses.

Table 3.15-2 Gilroy Unified School District Student Generation Rates

Housing Type	K-5	6-8	9-12	Total
Single-Family Homes	0.20	0.07	0.09	0.36
Multi-Family Homes	0.14	0.06	0.10	0.30

Source: Alvaro Meza, Gilroy Unified School District Assistant Superintendent/CBO 2020

Table 3.15-3, 2040 General Plan Buildout Estimated New Student Generation, presents the increase in students for elementary (K-5), middle (Grades 6-8), and high school (Grades 9-12) school facilities. Based on student generation factors, residential growth anticipated by the Gilroy 2040 General Plan would increase the school-age population by about 2,136 students requiring district services.

Table 3.15-3 2040 General Plan Buildout Estimated New Student Generation

Residential Unit Type	K-5	6-8	9-12	Total
Single-Family Homes (3,199 units)	640	224	288	1,152
Multi-Family Homes (3,278 units)	459	197	328	984
Total Students	1,099	421	616	2,136

Source: Mintier Harnish 2020 and Alvaro Meza 2020.

Buildout under the Gilroy 2040 General Plan would result in a total student enrollment of 12,788. As noted previously, the capacity of existing school facilities is 14,634 students. While the high school and middle school facilities are projected to have capacity to accommodate the anticipated increase in high school and middle school students, elementary schools would be over capacity under the buildout conditions, even if Antonio del Buono Elementary School were to reopen. Therefore, elementary school facilities would need to be expanded and/or new school facilities would need to be constructed at some point in the future, if enrollment projections remain constant. The school district collects Level I fees in accordance with the legislatively set fees and the school district's *Developer Fee Justification Study* (Gilroy Unified School District 2018). Future development associated with

buildout of the Gilroy 2040 General Plan would be responsible for the payment of the fees, which are considered by SB 50 to fully mitigate growth impacts to schools.

Gilroy 2040 General Plan

The following goals and policies of the proposed Gilroy 2040 General Plan address impacts related to the increase in demand for school services that may require the provision of new facilities. These policies ensure that adequate planning for public school facilities to meet future demand would occur through implementation of the Gilroy 2040 General Plan. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs for the full policy language.

Goal LU 3: Provide a variety of housing types that offer choices for Gilroy residents and create complete, livable neighborhoods.

- LU 3.1 Existing Neighborhoods

Policy LU 3.1 directs the city to maintain and enhance the quality of existing residential neighborhoods, ensuring adequate public facilities such as parks, schools, streets, water supply, and drainage.

Goal EP 1: Support the development of an educated, skilled, and competitive workforce to match the current and future employment needs of Gilroy's businesses.

- EP 1.2 Gilroy Unified School District

Policy EP 1.2 directs the city to encourage and support efforts of the Gilroy Unified School District to increase investment in both vocational and academic school programs and facilities.

Goal PFS 11: Provide Gilroy residents with access to excellent educational facilities and programs that are well integrated into the surrounding neighborhoods.

- PFS 11.1 Gilroy Unified School District Partnership
- PFS 11.2 Gavilan College Partnership
- PFS 11.3 Reinforce Educational Values
- PFS 11.4 School Impact Fees
- PFS 11.5 Inter-Agency Cooperation
- PFS 11.6 School Sites

Policy PFS 11.1 directs the city to continue to coordinate with the Gilroy Unified School District to establish areas of agreement for the shared use, maintenance, and development of facilities for community recreational use at existing and future school sites. Policy PFS 11.2 allows for consideration of expanding the partnership between the City and Gavilan College to allow for greater community use of college facilities. Policy 11.3 reinforces the educational

values as expressed in the Gilroy Unified School District Mission Statement through the policies and actions of the City in relation to educational facilities and community development. Policy PFS 11.4 directs the city to continue to collect new development fees as established by the Gilroy Unified School District, in accordance with State law. Policy PFS 11.5 directs the city to continue to cooperate with Gilroy Unified School District, Gavilan College, Santa Clara County Office of Education, and other educational organizations, and to old regular joint meetings to coordinate long-range planning, discuss development decision making, and address issues of common concern. Policy PFS 11.6 directs the city to continue to coordinate with developers and school district to provide high quality school sites (based on size, location, and terrain). In areas of new residential development, ensure that sites are identified as a condition of development approval and incorporated as part of the Neighborhood District planning process. Site location considerations include adjacency to planned open-space corridors, neighborhood park sites, and bike and pedestrian pathways.

Conclusion

Implementation of the Gilroy 2040 General Plan goals and policies identified above would minimize growth-related impacts to school capacity. Through implementation of the policies above, i.e. advanced planning and coordination of future school sites, some of the physical and environmental impacts associated with future development (such as division of communities, hazard exposure, impacts to habitat or wildlife, etc.) may be avoided or reduced. Environmental impacts resulting from the construction and operation of new schools would be analyzed by the school district prior to new site acquisition and construction.

Buildout of the Gilroy 2040 General Plan could also result in increased demand for capacity with the private schools located in the city. However, it is not possible to estimate the level of increased demand if any that would occur or the potential that such demand would be sufficient to require expansion of existing or construction of new private schools.

Project-specific environmental impacts of future site-specific expansions or construction of new public or private schools needed to support the level of growth proposed by the Gilroy 2040 General Plan cannot be determined because the locations and designs of new or modified schools are not known at this time. However, it can be expected that future construction of new or modified school facilities would have similar impacts as would construction of other future development under the proposed Gilroy 2040 General Plan. The environmental impacts resulting from the construction and operation of new schools would be analyzed by the school district prior to site acquisition and construction, once site-specific development of school facilities is identified. The proposed Gilroy 2040 General Plan policies and mitigation measures referenced in other sections of this EIR that serve to avoid or reduce potentially significant impacts from new development would also avoid or reduce impacts of constructing and operating new schools. Similarly, construction and operation of schools would contribute to the same cumulative impacts identified in this EIR for

combined new development associated with Gilroy 2040 General Plan buildout within the Urban Growth Boundary.

Implementation of the Gilroy 2040 General Plan goals and policies would reduce the potentially significant impacts to school facilities to less than significant. No mitigation is required.

3.16 PARKS AND RECREATION FACILITIES

This section discusses the potential impacts of the proposed project on parks and recreation facilities and services that could lead to physical changes in the environment. Unless otherwise noted, the information contained within this section is largely based on the *Gilroy 2040 General Plan Background Report* (Mintier Harnish 2014). The background report is available for review on the city's website at http://www.gilroy2040.com/documents/

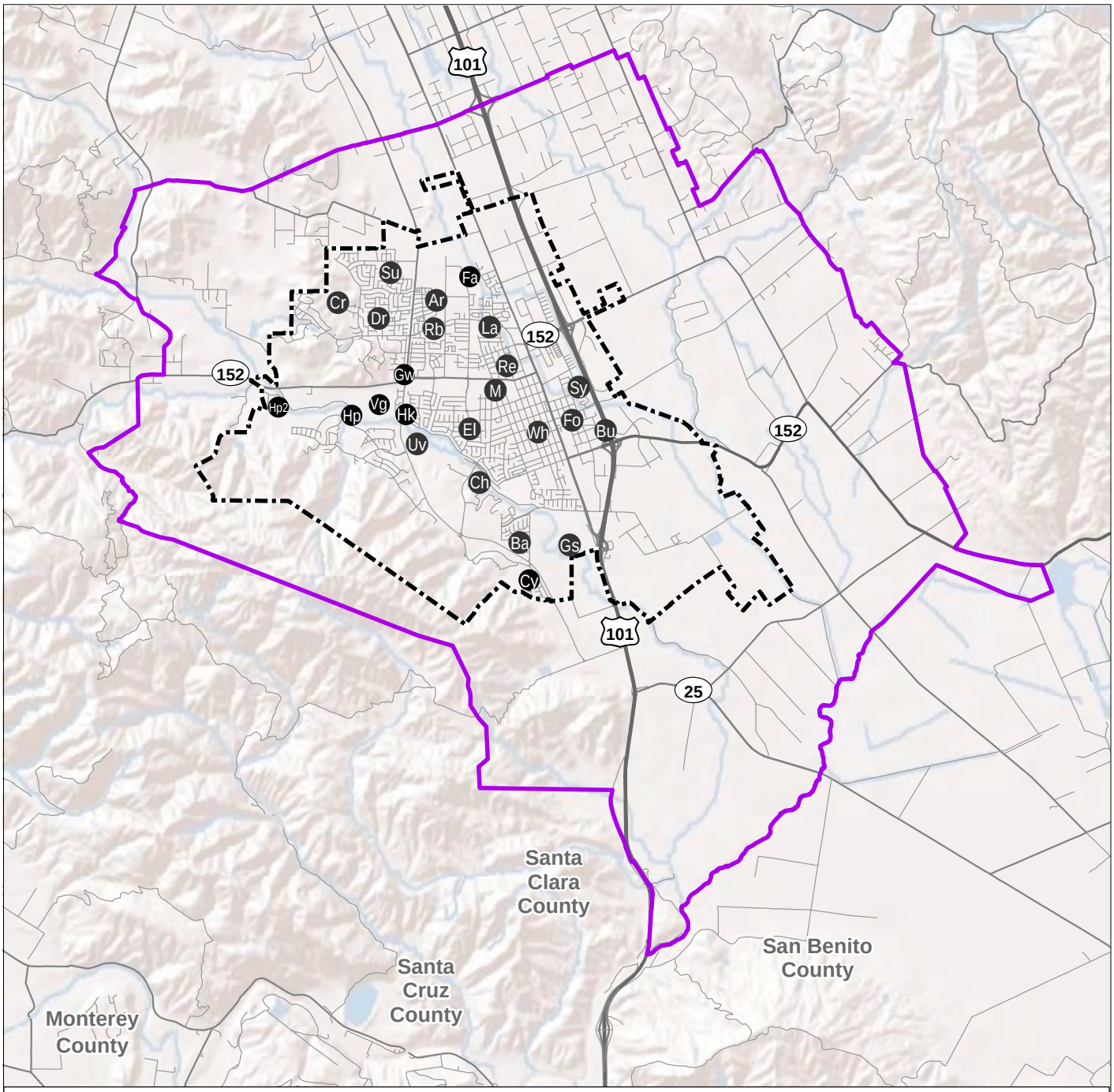
The Santa Clara County Parks and Recreation Department provided comments on the original NOP. The original NOP and comment letters are included in Appendix A.

Environmental Setting

Within the Gilroy 2040 General Plan Planning Area/Sphere of Influence, open space and recreation areas range from passive open space areas to active parks that include a variety of amenities such as playgrounds, picnic areas, ball fields, horse shoe pits, special use facilities, and basketball, volleyball, handball, and tennis courts. The city's existing General Plan Policy 16.01 sets forth the city's parkland provision requirements of five acres for every 1,000 persons.

Figure 3.16-1, City of Gilroy Existing Parks and Recreation Facilities, presents the locations of existing major parks and recreational facilities in the Gilroy 2040 General Plan Planning Area/Sphere of Influence. Facilities shown include community parks, neighborhood parks, park preserves, mini parks, trails/linear parkways, special use facilities, and a sports park. Recreational facilities are not limited to those owned and operated by the City of Gilroy. Other facilities include those at schools (Gilroy Unified School District and private institutions), and those operated by privately-owned facilities.

Table 3.16-1, City of Gilroy Existing Parks and Recreation Facilities, summarizes the locations and sizes of existing park facilities. Table 3.16-1 distinguishes between developed park sites and developed areas designated for limited use. The *City of Gilroy Parks and Recreation System Master Plan* defines limited active recreation areas as park lands that will not be formally developed into typical high-use urban park land. Limited use park lands will remain in substantially natural conditions, and may be portions of larger parks, for example, undeveloped areas of Christmas Hill Park. These park lands are highly valued for their scenic quality, contribution to community character, and passive recreational use, but due to their limited active recreation use, park lands which remain in substantially natural conditions will be valued at 10 percent of their acreage when calculating "park acres per thousand population" (Bellinger Foster Steinmetz 2004, p. 11).



Parks and Recreation Facilities

● Parks

Community Parks

Christmas Hill Park and Ranch (Ch)
Las Animas Veterans Park (La)

Specialty Parks

Gilroy Sports Park: Phases 1 and 2 (Gs)

Neighborhood Parks

Carriage Hills Park (Cr)
Cydney Casper Park (Cy)
Heartland Park (Hp)
Hecker Pass Park 2 (Hp2)
Los Arroyos Park (Ar)
Miller Park (M)
San Ysidro Park (Sy)
Sunrise Park (Su)

Neighborhood/School Parks

Del Rey Park (Dr)
El Roble Park (El)
Farrell Avenue Park (Fa)
Rainbow Park (Rb)

Park Preserves

Babbs Creek Park Preserve (Ba)
Debell Uvas Creek Park Preserve (Uv)

Mini Parks

Butcher Park (Bu)
Forest Street Park (Fo)
Gateway Park (Gw)
Renz Park (Re)
Wheeler Tot Lot (Wh)
Village Green Park (Vg)

0 1.75 miles

Urban Growth Boundary

Planning Area/Sphere of Influence

Source: Bellinger Foster Steinmetz 2002, Stan Ketchum 2020, City of Gilroy 2018, Esri 2015

Figure 3.16-1

City of Gilroy Existing Parks and Recreation Facilities

Gilroy 2040 General Plan EIR

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Table 3.16-1 City of Gilroy Existing Parks and Recreation Facilities

Class/Park Location	Developed Park Acres	Developed Limited Use Acres	Total Park Acres
Community Parks			
Christmas Hill Park and Ranch 7050 Miller Ave. and 7049 Miller Ave.	51.00	-	51.00
Las Animas Veterans Park 400 Mantelli Dr.	30.58	-	30.58
Subtotal	81.58	-	81.58
Neighborhood Parks			
Carriage Hills Park 1701 Crest Hill Way	2.94	6.00	8.94
Los Arroyos Park 801 Moro Dr.	2.52	-	2.52
Miller Park 7851 Carmel St.	4.14	-	4.14
San Ysidro Park 7700 Murray Ave.	9.25	-	9.25
Sunrise Park 9525 Saddler Dr.	8.00	-	8.00
Cydney Casper Park Charles Lux Dr.	3.30	-	3.30
Heartland Park South of Third St./Rosemary Dr.	3.00	-	3.00
Hecker Pass Park 2	1.50	-	1.50
Subtotal	34.65	6.00	40.65
Neighborhood/School Parks			
Del Rey Park 9001 Calle del Rey	3.00	-	3.00
El Roble Park 7550 Wren Ave.	3.50	-	3.50
Rainbow Park 980 Mantelli Dr.	2.25	-	2.25
Farrell Avenue Park Wren Ave. at Vickery	-	3.00	3.00
Subtotal	8.75	3.00	11.75
Park Preserves			
Babbs Creek Park Preserve Babbs Creek Dr. at Thomas Rd.	-	4.00	4.00
Debell Uvas Creek Park Preserve Santa Teresa Blvd. to W. Luchessa	-	125.00	125.00
Subtotal	-	129.00	129.00

Class/Park Location	Developed Park Acres	Developed Limited Use Acres	Total Park Acres
Mini Parks			
Butcher Park 602 Old Gilroy St.	0.10	-	0.10
Forest Street Park 7325 Forest St.	0.78	-	0.78
Renz Park 8140 Hanna St.	0.52	-	0.52
Wheeler Tot Lot 250 W. 6th St.	0.15	-	0.15
Gateway Park Santa Teresa Blvd. at SR 152	0.60	-	0.60
Village Green Park Santa Teresa Blvd. at Third St.	2.00	-	2.00
Subtotal	4.15	-	4.15
Specialty Park			
Gilroy Sports Park: Phases 1 and 2 5925 Monterey Frontage Rd.	22.00	-	22.00
Subtotal	22.00	-	22.00
Special Use Facilities			
Gilroy Historic Museum 195 Fifth Street	0.13	-	0.13
Senior Center 7371 Hanna Street	1.19	-	1.19
Wheeler Community Center 250 Sixth/Church St.	1.31	-	1.31
Willey Cultural Center Fifth St.	0.26	-	0.26
Christopher High School Aquatics Center 850 Day Rd.	6.00	-	6.00
Solorsano Middle School Gym 7121 Grenache Way	1.00	-	1.00
Subtotal	9.89	-	9.89
Total	161.02	138.00	299.02

Source: Bellinger Foster Steinmetz 2002, Stan Ketchum 2020b.

The City of Gilroy has an established standard of five acres of developed parkland per thousand population. The city's standard includes neighborhood/school parks, community and community/school parks, sports parks, trails/linear parkways, and special use facilities. Park preserves and limited active recreation use areas are valued at five percent of their total acreage toward meeting this standard. Golf courses, non-accessible open spaces, and private recreational facilities are not included in this standard. For this same reason the existing Gilroy Golf Couse, a special use facility, was not included in Table 3.16-1. School lands are not included unless there is a long-term lease agreement for their use as city recreational facilities.

Table 3.16-2, City of Gilroy Existing Developed Park Acreage, summarizes the acreage of existing developed parks in the city towards meeting the parkland standard.

Table 3.16-2 City of Gilroy Existing Developed Park Acreage

Developed Park Acres for Standard	Developed Limited Use Acres for Standard	Total Developed Park Acres for Standard
161.02[1]	6.90[2]	167.92

Source: Bellinger Foster Steinmetz 2002, Stan Ketchum 2020b.

Notes:

1. The city's parkland standard includes neighborhood/school parks, community and community/school parks, sports parks, trails/linear parkways, and special use facilities. Total developed park acres in Gilroy is 161.02 (from Table 3.16-1).
2. Total developed limited use acres in Gilroy is 138 (from Table 3.16-1). Park preserves and limited active recreation use areas are valued at five percent of their total acreage toward meeting the city's parkland standard. Therefore, the developed limited use areas towards meeting the standard = 5 percent of 138 acres = 6.90 acres.

As of January 1, 2019, the City of Gilroy had a population of 55,928 (California Department of Finance 2019). Based on the city's parkland standard, the current need for developed public parklands in Gilroy is approximately 280 acres. From Table 3.16-2, the city has 167.92 acres of existing developed parks. The city is short 112.08 acres of parkland. Therefore, the City of Gilroy does not meet the parkland standard under existing conditions.

Open Space

Land designated as Open Space on the General Plan Land Use Map is not considered part of the city's parks and recreation system. While open space plays an ancillary role in meeting recreational needs, the primary purpose of these lands is to preserve the natural environment, including areas inappropriate for development, due to natural hazards, e.g., flooding, steep slopes, etc. Open space areas also protect scenic resources within and surrounding the community.

Open space areas throughout the Gilroy 2040 General Plan Planning Area/Sphere of Influence preserve regionally important biological resources. Such areas include riparian forests and adjacent habitats along Uvas Creek and Llagas Creek, the Eagle Ridge open space area located southwest of the developed Eagle Ridge golf community and Santa

Teresa Boulevard, habitat preservation areas located within the Glen Loma Ranch Specific Plan area, and agricultural areas within the Hecker Pass Specific Plan area. Other designated open space areas within the 2040 Gilroy General Plan Planning Area/Sphere of Influence, and outside the Urban Growth Boundary, include the following:

- an area south of the Gilroy Sports Park and west of Monterey Road;
- areas to the south, east, and west of the South County Regional Wastewater Treatment Plant;
- an area north of Pacheco Pass Highway and east of the Gilroy Premium Outlets; and
- an area east of Santa Teresa Boulevard and west of Center Avenue.

Additionally, the Santa Clara County Open Space Authority is an independent special district that maintains multi-use trails for hikers, bicyclists, and equestrians and is committed to opening new lands to visitors as funding allows. The trails are open every day of the year and are free to the public. The Santa Clara County Open Space Authority currently manages regional parks to the east of Gilroy in the Diablo Foothills and Palassou Ridge, east of Coyote Lake and the Coyote Lake-Harvey Bear Ranch County Park.

Trails/Linear Parkway

Trails are grade-separated for pedestrian and/or bicycle use. Some trails may be appropriate for equestrian use, although equestrian use of Gilroy parks is not currently allowed. Trails connect various areas of the Gilroy, as well as parks, park preserves and schools. Trails also serve as part of a regional trails network and connect to Gilroy's on-street bicycle route system for recreational use as well as providing a means of alternative transportation. Major connecting trails in parks and park preserves classified as a linear parkway include trail route identification and are included in total trail mile calculations. Trails have no minimum or maximum length. Existing trails/linear parkways include the Gilroy Sports Park Trail, the Uvas Creek Park Preserve Levee Trail, and the Uvas and Luchessa Avenue staging area. A linear trail is located along the portion of the Uvas Creek Park Preserve through the Hecker Pass Specific Plan. These existing trails and linear parkways provide important interconnecting linkages to regional and county trail networks which in turn provide access to other Santa Clara County recreational opportunities. These larger connecting regional trail networks include the Juan Bautista de Anza National Historic Trail, the Bay Area Ridge Trail, the West Valley Trail, the Yosemite Trail and the Benito-Claro Trail systems.

Regional Parks and Other Recreation Facilities

There are currently no federal or state parks within the Gilroy 2040 General Plan Planning Area/Sphere of Influence. The nearest state park in the Gilroy vicinity is the 32,000-acre Henry W. Coe State Park to the east. The Juan Bautista de Anza National Historic Trail runs north-south through Gilroy and several County parks are in the Gilroy vicinity including the 4,595-acre Coyote Lake-Harvey Bear Ranch County Park, which lies to the east of Gilroy

and includes a 635-acre lake and 73 campsites, the 3,039-acre Mt. Madonna County Park located ten miles to the west of the city and features redwood groves, hiking and equestrian trails, and 118 campsites, and the 1,049-acre Uvas Canyon County Park which features hiking trails, picnic sites, and 25 campsites and is located to the north. In addition, the Debell Uvas Creek Park Preserve is part of the Santa Clara County Parks system. The area is maintained by the City of Gilroy.

Other facilities include those at schools (Gilroy Unified School District, Gavilan College, and private institutions), Gilroy Gardens Family Theme Park, and those operated by privately-owned facilities including various performing arts and fitness facilities.

Regulatory Setting

State

Sections 65560-65568, Government Code. Open Space Lands. This section of California planning law defines open space and requires cities to prepare an open space plan as a required element of its General Plan. Building permits, subdivision approvals, and zoning ordinance approvals must be consistent with the local open space plan.

Section 5076, Public Resources Code. Open-Space Elements and Trail Considerations. This law requires that during development of the General Plan, cities shall consider trail-oriented recreational use and shall consider such demands in developing specific open-space programs, and shall consider the feasibility of integrating their trail routes with appropriate segments of the State system.

Section 66477, Government Code, Subdivision Map Act. Referred to as the Quimby Act, this law allows local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The required dedication and/or fees are based on the residential density, parkland cost, and other factors. Land dedicated and fees collected pursuant to the Quimby Act may only be used for developing new or rehabilitating existing park or recreational facilities. The maximum dedication and/or fee allowed under current State law is equivalent to providing three acres of parkland per 1,000 persons, unless the park acreage of a municipality exceeds that standard, in which case the maximum dedication is five acres per 1,000 residents.

Local/Regional

Santa Clara County Open Space Authority. Although Gilroy is not a member of the Open Space Authority, it is located within its boundaries. The Open Space Authority was created in 1992 through State legislation with a mission to "preserve, protect and manage, for the use and enjoyment of all people, a well-balanced system of urban and non-urban areas of outstanding scenic, recreational and agricultural importance." While parcels of land within Gilroy city limits are not in the jurisdiction of the Open Space Authority, parcels just outside the city limits within the Gilroy 2040 General Plan Planning Area/Sphere of Influence are within the jurisdiction of Open Space Authority.

South County Joint Area Plan. The South County Joint Area Plan consists of an effort between the City of Gilroy, the County of Santa Clara, and the City of Morgan Hill to mutually state policies for community development and environmental management. It intends to achieve harmony and cooperation among the three South County Jurisdictions. Natural streamside and riparian areas should be left in their natural state in order to preserve their value as percolation and recharge areas, natural habitat, scenic resources, recreation corridors, and for bank stabilization. The visual integrity of the scenic gateways to the South County (Pacheco Pass, Hecker Pass, U.S Highway 101 south of Gilroy, and a Coyote greenbelt area north of Morgan Hill) should be protected. The hillside/mountain areas to the east and the west should be limited to low intensity rural uses compatible with open space in order to maintain their integrity as the South County's major scenic and natural resources. Permanent preservation of substantial areas of open space should be considered.

City of Gilroy Parks and Recreation System Master Plan (2002). The City of Gilroy Parks and Recreation System Master Plan, prepared in 2002 and updated in 2004, includes park facilities, historic and cultural facilities, visual and performing arts facilities, and recreation, leisure, education, and artistic programs as park and recreation facilities and programs. The Parks and Recreation System Master Plan process was initiated to evaluate the current state and future of Gilroy's parks and recreation facilities and programs, including cultural arts programs, and was developed by the city concurrently with the 2020 General Plan so that the two were consistent. The overarching goals of the Master Plan include: providing access to the fullest range of park and recreation facilities, recognizing the special needs of youth, maximizing public park development resources through the planning and design of multi-use park and recreation facilities, encouraging interagency cooperation, and pursuing a variety of financing mechanisms for acquisition, development, long-term operations and maintenance of the parks and recreation system.

City of Gilroy Trails Master Plan (2005)/Santa Clara County Countywide Trails Master Plan (1995). In 2005, the city adopted a citywide Trails Master Plan which is intended to be an implementation tool for the 2020 General Plan. Through implementation of the Trails Master Plan, the city has conditioned development proposals to provide for trails where shown on the approved Trails Master Plan map as part of the development review and approval process. Additionally, the city's trail network is included under the Santa Clara County Countywide Trails Master Plan, which was adopted in 1995 as part the Parks and Recreation Element of the Santa Clara County General Plan. The Countywide Trails Master Plan identifies the functions and benefits of a countywide trail system: outdoor recreation, transportation, education, public health, and social well-being. The countywide trail system provides for regional, sub-regional, and connector trails throughout Santa Clara County, including within the City of Gilroy. In 2015, modifications were made to the Countywide Trails Master Plan to provide guidance on the maintenance and development of existing and proposed trail alignments throughout the county. County trails running through or

near Gilroy include the West Valley Sub-Regional Trail, the West Branch Llagas Creek Connector and Extension Trails, and the Buena Vista - Day Connector Trail.

Threshold of Significance

The City of Gilroy CEQA thresholds of significance state that a project may have a significant effect on the environment if it would:

- result in substantial adverse physical impacts associated with the provision of or need for new or physically altered public parks facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks. Lack of required dedication of parkland or payment of required mitigation fees to offset costs of providing the necessary park and recreation facilities would constitute a significant impact.

Analysis, Impacts, and Mitigation Measures

IMPACT	Requirement for Alteration or Construction of New Park and Recreational Facilities	Less Than Significant

Implementation of the proposed Gilroy 2040 General Plan would result in an increase in demand for new parkland and recreational facilities and an increase in use of existing city and regional facilities, which has the potential to result in significant environmental impacts.

The city's park standard is 5.0 acres of parkland per 1,000 people. Growth anticipated by the Gilroy 2040 General Plan would result in a projected population of approximately 73,430 at buildout. Based on the 5.0 acres per 1,000 people parkland provision standard, the city would need a total of 367 acres of developed parkland to accommodate the total population anticipated under Gilroy 2040 General Plan buildout conditions.

Figure 3.16-2 City of Gilroy Future Parks and Recreation Facilities, presents the locations of future parks and recreational facilities in the Gilroy 2040 General Plan Planning Area/Sphere of Influence.

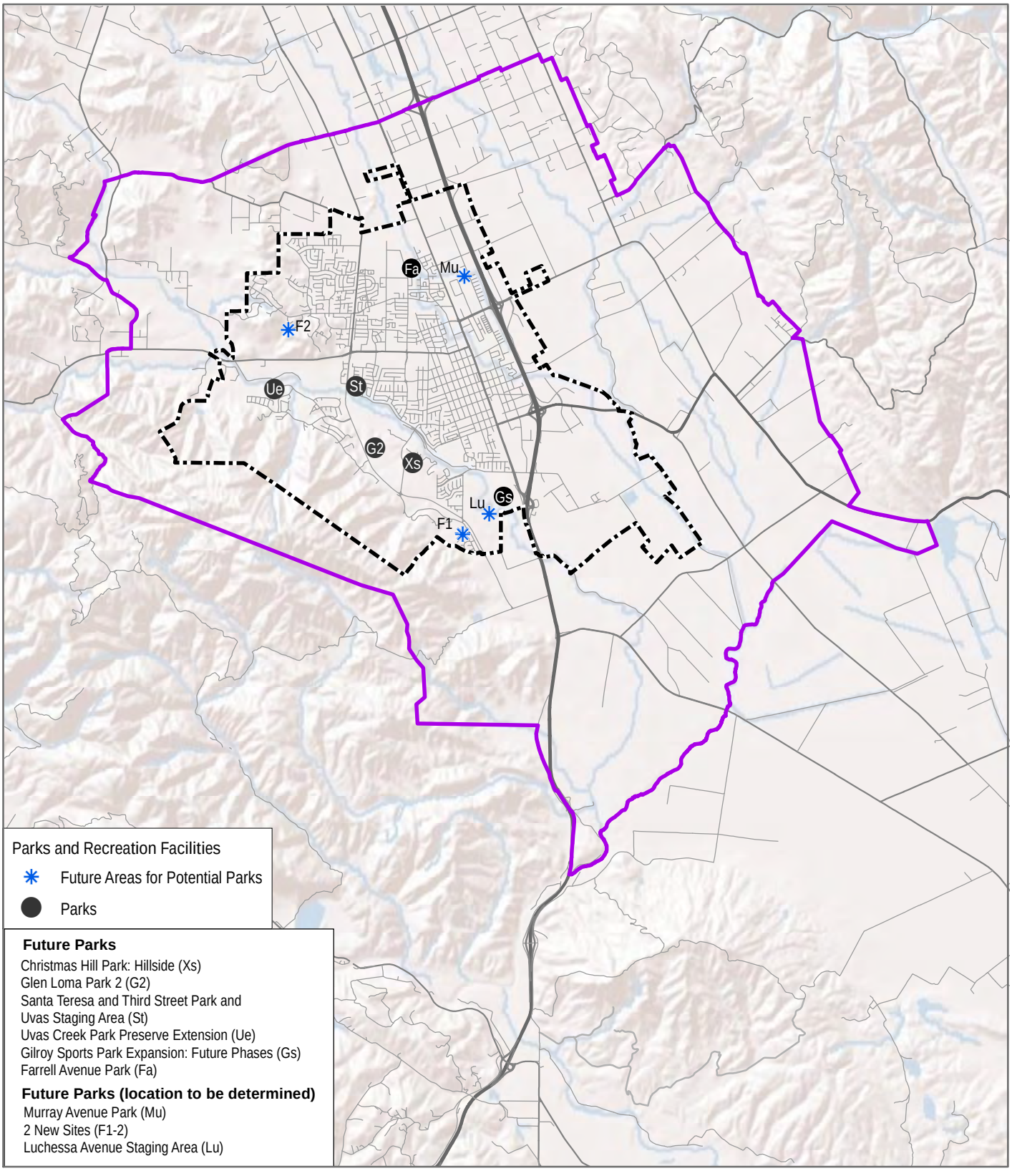
Table 3.16-3, City of Gilroy Future Parks and Recreation Facilities, on the following page, summarizes the future park sites that have been identified for development.

Table 3.16-4, City of Gilroy Future Undeveloped Park Acreage, summarizes the acreage of future undeveloped parks in the city towards meeting the parkland standard.

Table 3.16-3 City of Gilroy Future Parks and Recreation Facilities

Class/Park Location	Undeveloped Park Acres	Undeveloped Limited Use Acres	Total Undeveloped Park Acres
Community Parks			
Christmas Hill Park: Hillside	-	24.50	24.50
Subtotal	-	24.50	24.50
Neighborhood Parks			
Glen Loma Park 2	2.70	8.20	10.90
Santa Teresa and Third Street Park and Uvas Staging Area	6.26	3.87	10.13
Murray Ave. Park[1]	3.00	-	3.00
2 New Sites[1]	10.00	-	10.00
Subtotal	31.96	12.07	44.03
Neighborhood/School Parks			
Farrell Avenue Park Wren Ave. at Vickery	-	3.64	3.64
Subtotal	-	3.64	3.64
Park Preserves			
Uvas Creek Park Preserve Extension Hecker Pass (north of Santa Teresa Bridge)	-	73.80	73.80
Subtotal	-	73.80	73.80
Specialty Parks			
Gilroy Sports Park Expansion: Future Phases 5925 Monterey Frontage Rd.	65.50	-	65.50
Subtotal	65.50	-	65.50
Trails/Staging Areas			
Luchessa Ave. Staging Area[1]	2.56	2.86	5.42
Trails[1]	20.40	-	20.40
Subtotal	22.96	2.86	25.82
Special Use Facilities			
Bicycle Facility	3.00	-	3.00
Downtown Plaza	1.50	-	1.50
Performing & Visual Arts Center Eigleberry and 7th St.	2.30	-	2.30
Subtotal	6.80	-	6.80
Total	117.22	116.87	234.09

Source: Bellinger Foster Steinmetz 2002, Stan Ketchum 2020b.
Notes: 1. Location to be determined.



Source: Bellinger Foster Steinmetz 2002, Stan Ketchum 2020, City of Gilroy 2018, Esri 2015

Figure 3.16-2

City of Gilroy Future Parks and Recreation Facilities

Gilroy 2040 General Plan EIR

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Table 3.16-4 City of Gilroy Future Undeveloped Park Acreage

Undeveloped Parks Acres for Standard	Undeveloped Limited Use Acres for Standard	Total Undeveloped Park Acres for Standard
117.22[1]	5.84[2]	123.06

Source: Bellinger Foster Steinmetz 2002, Stan Ketchum 2020b.
Notes:
1. The city's parkland standard includes neighborhood/school parks, community and community/school parks, sports parks, trails/linear parkways, and special use facilities. Total undeveloped park acres in Gilroy is 127.22
(from Table 3.16-3).
2. Total undeveloped limited use acres in Gilroy is 116.87 (from Table 3.16-3). Park preserves and limited active recreation use areas are valued at five percent of their total acreage toward meeting the city's parkland standard. Therefore, the undeveloped limited use areas towards meeting the standard = 5 percent of 116.87 acres = 5.84 acres.

From Table 3.16-4, the city has 123.06 acres of future parks identified for development. From Table 3.16-2, the city has 167.92 acres of existing developed parks. The total park acreage at buildout of the General Plan would equal 290.98 acres. This is below the parkland acres required to accommodate the total population anticipated under Gilroy 2040 General Plan buildout conditions. Therefore, development consistent with the Gilroy 2040 General Plan would result in the need for new parks and recreational facilities.

The Gilroy 2040 General Plan, in conjunction with the existing Parks & Recreation System Master Plan, includes several policies to ensure that the city's parkland goal is met, that existing parks are maintained or upgraded as needed, and that new facilities are developed as needed.

Gilroy 2040 General Plan

The following Gilroy 2040 General Plan goals and policies address impacts related to an increased demand for park and recreation facilities. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs for the full policy language.

Goal LU 1: Protect and enhance Gilroy's quality of life and unique identity while continuing to grow and change.

- LU 1.7 Access to Open Space

Policy LU 1.7 require new hillside developments to provide trail access to adjacent greenways, open space corridors, and regional parks where feasible.

Goal M 3: Support bicycling and walking by providing a safe and extensive bicycle and pedestrian network.

- M 3.1 Roadway Design
- M 3.2 New Development
- M 3.4 Bicycle and Pedestrian Path Network

- M 3.5 Bicycle and Pedestrian Transportation Plan
- M 3.6 Bicycle and Pedestrian Priority
- M 3.7 Pedestrian and Bicycle Facility Design Guidelines

Policy M 3.1 requires the design of all future roads, bridges, and facilities to accommodate bicycle and pedestrian travel. Policy M 3.2 requires new development to include a system of sidewalks, trails, and bikeways that link all land uses, provide accessibility to parks and schools, and connect to all existing or planned external street and trail facilities in accordance with the Mobility Diagrams.

Policy M 3.4 directs the city to develop and maintain a network of paths along linear parks, public easements, drainages, and other open space areas to accommodate bicycle and pedestrian traffic. Policy M 3.5 directs the city to maintain and implement a Bicycle and Pedestrian Transportation Plan that guides investment in Gilroy's bicycle and pedestrian networks. These networks should connect residential developments with employment centers, public open spaces, parks, schools, shopping districts, and other major destinations.

Policy M 3.6 prioritizes designs that favor pedestrian and bicycle circulation improvements over those for vehicular circulation on existing or proposed streets that provide opportunities to expand walking and bicycling as viable alternative modes of transportation, particularly on streets identified in Figures M-2 and M-3. Such improvements could include separate bicycle lanes, wider sidewalks, and bicycle/pedestrian-friendly intersection improvements. Policy M 3.7 directs the city to develop and maintain design guidelines for pedestrian and bicycle facilities, when feasible, that result in the construction of pedestrian and bicycle improvements that are attractive, functional, and accessible.

Goal EP 6: Attract visitors and provide them with the amenities and services to make their stay enjoyable.

- EP 6.6 Gilroy Sports Park
- EP 6.7 Outdoor Recreation

Policy EP 6.6 directs the city to develop financing strategies for completion and operation of the Sports Park in accordance with the Sports Park Master Plan such that the City can expand and promote events for youth sports and regional tournaments, either to supplement regional events currently hosted in South County or to create a new niche for itself. Policy EP 6.7 promotes outdoor recreational activities within and in close proximity to Gilroy (hiking, biking, equestrian, archery, etc.) as a means to attract tourists and promote Gilroy's high quality of life.

Goal PFS 1: Provide the highest level of public facilities and services feasible, consistent with the City's fiscal resources, to meet the needs of current and future residents and businesses.

- PFS 1.7 Public Facility Clustering
- PFS 1.8 Partnering
- PFS 1.11 Development Impact Fees

Policy PFS 1.7 promotes clustering public and quasi-public facilities (e.g., schools, parks, libraries, child care facilities), the joint-use of these facilities, and agreements for sharing costs and operational responsibilities among public service providers. Policy PFS 1.8 strives to partner or form joint ventures with commercial and nonprofit organizations to facilitate the development and operation of community facilities, programs and services. Policy PFS 1.11 requires applicants for new development to pay Development Impact Fees for traffic circulation, water, wastewater, storm water and public facilities to offset the costs of expanding these as detailed by the impact fee nexus study.

Goal PFS 11: Provide Gilroy residents with access to excellent educational facilities and programs that are well integrated into the surrounding neighborhoods.

- PFS 11.1 Gilroy Unified School District Partnership

PFS 11.1 directs the city to continue to coordinate with the school district to establish areas of agreement for the shared use, maintenance, and development of facilities for community recreational use at existing and future school sites.

Goal PR 1: Provide a comprehensive and coordinated system of convenient, attractive, and high-quality parks to meet the current and future recreation needs of Gilroy residents.

- PR 1.1 Complete System
- PR 1.3 Parks and Recreation System Master Plan
- PR 1.4 Park Land Standard. This policy maintains the existing policy with a standard of five acres per 1,000 residents
- PR 1.5 Facilities and Services Timing
- PR 1.8 Park Land Dedication
- PR 1.14 Recreation Facilities in New Development
- PR 1.16 Development of Public Parks
- PR 1.18 Community Gardens on Public Lands

Policy PR 1.1 directs the city to develop and maintain a complete system of parks that provide opportunities for both passive and active recreation. Policy PR 1.3 directs the city to maintain and implement the Parks and Recreation System Master Plan to guide the

planning, design and implementation of a citywide system of parks and recreation facilities and programs, including cultural and other special use facilities. Policy PR 1.4 directs maintenance of the City's established standard of five acres of developed park land per thousand population. Policy PR 1.5 ensures that the development of parks, trails, and community and recreation facilities and services keeps pace with development and growth within the city. Policy PR 1.8 requires developers of new residential subdivisions to dedicate land for development of parks and recreation facilities. Policy PR 1.14 encourages providing public and private recreation facilities in residential developments, especially publicly-accessible, privately maintained facilities. Policy PR 1.16 encourages providing public and private recreation facilities in residential developments. Policy PR 1.18 directs the city to explore opportunities to create community gardens on surplus public lands.

Goal PR-2: Support recreational and cultural programs that promote wellness, fun, lifelong learning, skill development, personal enrichment, and positive relationships.

- PR 2.1 Recreational Needs

Policy PR 2.1 addresses providing recreation facilities and programs that are responsive and accessible to the diverse cultures and age groups that comprise the Gilroy community.

Goal PR-3: Coordinate with local and regional organizations and agencies to provide the highest quality parks and recreation facilities and program to Gilroy residents.

- PR 3.3 Partnerships with Local and Regional Public Agencies
- PR 3.4 Joint Use Facilities

Policy PR 3.3 directs the city to identify opportunities to expand partnerships with local and regional public agencies that can assist in providing recreational facilities and programs. Policy PR 3.4 directs the city to continue to coordinate with the Gilroy Unified School District to establish areas of agreement for shared use, maintenance, and development of facilities for community recreation use at existing and future school sites.

Regional Facilities

Several Gilroy 2040 General Plan policies address impacts to regional parks as well as city facilities. These policies include policy LU 1.7 which requires trail connections to regional facilities, policy PFS 1.8, which encourages partnerships to facilitate development and operation of community facilities, programs and services, Policy PFS 11.1 and Policy PFS 11.2, which encourage partnerships with the Gilroy Unified School District and Gavilan College to encourage shared use of school facilities, and policy PR 3.3, which seeks to coordinate partnerships with local and regional public agencies that can assist in providing recreational facilities and programs, including Santa Clara County Parks, California State Parks, Valley Water, Santa Clara County Open Space Authority, City of Morgan Hill, Gilroy Unified School District, and the Gilroy Police Department.

Conclusion

The specific environmental impacts of constructing new park facilities to support an increase in demand under the Gilroy 2040 General Plan, as well as specific impacts of maintaining and/or renovating existing city and regional park and recreation facilities, are expected to have similar impacts, as would construction and operation, of other types of new development proposed in the Gilroy 2040 General Plan buildout. Consequently, proposed Gilroy 2040 General Plan policies and mitigation measures referenced in other sections of this EIR that serve to avoid or reduce potential impacts from new development would also avoid or reduce significant adverse impacts of constructing and operating new parks.

Construction and operation of new parks would contribute to the same cumulative impacts identified in this EIR for combined new development within the proposed Urban Growth Boundary. Advanced planning and prioritization, as required by the policies listed above, would help to ensure that existing facilities would not be substantially impacted either physically or environmentally by population growth under the proposed Gilroy 2040 General Plan.

Compliance with Gilroy 2040 General Plan goals, policies, and implementation programs, as well as the mitigation measures identified throughout this EIR, will ensure potentially significant environmental impacts associated with development of the city's required parks and recreation facilities would be less than significant. No additional mitigation is required.

3.17 TRANSPORTATION AND MOBILITY

Unless otherwise noted, the information contained within this section is taken from the *City of Gilroy 2040 General Plan Draft Traffic Impact Analysis* (traffic report or "report") prepared by Hexagon Transportation Consultants in 2020. The traffic report is included in Appendix G. The traffic report was prepared consistent with the standards and methodologies set forth by the City of Gilroy, the Santa Clara Valley Transportation Authority (VTA) Congestion Management Program's Transportation Impact Guidelines (October 2014), and by the California Environmental Quality Act (CEQA). The VTA administers the Congestion Management Program (CMP) for Santa Clara County.

Like most other jurisdictions in Santa Clara County and the State, the City of Gilroy has historically utilized delay and congestion on the roadway system as the primary analysis metric to evaluate traffic impacts and potential roadway improvements to relieve traffic congestion that may result from proposed/planned growth. However, the State of California has recognized the limitations of measuring and mitigating only vehicle delay at intersections and in 2013 passed Senate Bill (SB) 743, which requires jurisdictions to stop using congestion and delay metrics, such as Level of Service (LOS), as the measurement for CEQA transportation analysis.

This section addresses fundamental transportation and mobility issues with a focus on performance of the circulation network as measured by vehicle miles traveled (VMT). With the adoption of SB 743 legislation and the updated CEQA Guidelines (Section 15064.3, Nov 2017), beginning July 1, 2020, the use of intersection level of service as a metric for determining impacts of development growth on the transportation system will no longer be permitted. Therefore, in adherence to SB 743, transportation impacts as the result of build out of the Gilroy 2040 General Plan were evaluated based on VMT.

The City of Gilroy currently uses LOS as their adopted methodology for the evaluation of the effects of new development and land use changes on the local transportation network. Additionally, Gilroy 2040 General Plan Policy M 5.1 also calls for use of LOS to measure the performance of traffic facilities. Further, the city is still required to conform to the requirements of the VTA, which establishes a uniform program for evaluating the transportation impacts of land use decisions on the designated CMP Roadway System. The VTA has yet to adopt and implement guidelines and standards for the evaluation of the CMP roadway system using VMT. Therefore, in addition to the evaluation of VMT, this evaluation also includes LOS analysis to evaluate the effects of the build out of the Gilroy 2040 General Plan on the citywide transportation system, including intersections, freeway segments, and freeway ramps. The LOS analysis supplements the CEQA VMT analysis and identifies transportation and traffic operational issues that may arise due to the projected growth. The LOS analysis, however, is presented for informational purposes and to determine improvements to facilities that would be needed as development consistent with the Gilroy General Plan proceeds over time. The determination of project impacts per CEQA requirements is based solely on the VMT analysis.

Existing conditions and Gilroy 2040 General Plan buildout conditions were evaluated, the latter with inclusion of a number of new circulation facilities and traffic controls added to the existing circulation network. The traffic report assumes that buildout of land uses identified in the Gilroy 2040 General Plan would occur by 2040. This is a conservative assumption in that based on growth rates assumed in the Gilroy 2040 General Plan, it is likely that full buildout would not occur until after 2040.

The Gilroy Travel Demand Forecasting model was used to calculate VMT data, based on VMT per capita and VMT per employee metrics. VMT per capita and VMT per employee are metrics used to calculate average trips length per resident and per employee for CEQA purposes. Average daily VMT for all the existing development in the city serves as the baseline from which a project is evaluated.

Additional issues addressed in this section include availability and access to alternative transportation options (e.g. rail, bicycle, pedestrian), emergency access, parking adequacy, and transportation safety.

No transportation-related comments were received in response to the revised NOP. However, several transportation-related comments were received in response to the original

NOP published in 2015. Caltrans commented on land use, mitigation to facilities under its jurisdiction, consideration of "complete streets" concepts, CEQA streamlining under SB 375, promoting vehicle trip reduction, secondary impacts on pedestrians and bicyclists, traffic fees, and payment of fair-share funds for impacts on regional facilities. The Santa Clara County Roads and Airports Department requested that evaluation of impacts on non-city roads and highways be provided. The California Public Utilities Commission commented on the need to assess safety impacts at at-grade rail crossings. VTA noted the need for a traffic report, assessment of impacts on its Congestion Management Plan facilities, clarity on land use assumptions used in the traffic report, appropriate modeling, and assessment of impacts on transit travel times as such affects vehicle miles traveled (VMT) and greenhouse gas (GHG) emissions.

Environmental Setting

Existing VMT

The State's Office of Planning and Research (OPR) requires using VMT metrics instead of LOS to evaluate potential project transportation impacts under CEQA. VMT is a metric that is used in noise, air quality, and greenhouse gas emissions analyses because it provides an indication of the usage level of the automobile and truck transportation system within the city. A greater number of vehicle miles traveled generally means more noise and more air pollution. VMT data is calculated using the City of Gilroy Travel Demand Forecasting model and is based on VMT per capita and VMT per employee metrics. In accordance with CEQA, all proposed projects are required to analyze transportation as a component of environmental review using average trip length per resident and/or per employee as metrics. The average trips length is calculated by multiplying the number of vehicle trips by the travel distance divided by the number of residents or employees. Average daily VMT for all existing development in the city during the base year of 2017 serves as the baseline for evaluation of VMT associated with buildout of the City of Gilroy 2040 General Plan.

As reported in Table 6 of the traffic report, Gilroy residents generated a baseline average 893,941 VMT and employees generated a baseline average of 437,578 VMT. Baseline residential VMT is 16.46 VMT per capita based on a population of 54,320. Baseline employment VMT is 20.14 VMT per job based on 21,729 jobs in 2017.

Existing Street and Highway Network

The city is served by an extensive network of freeways, arterials, and local roads. These roadways provide access to the surrounding municipalities and to local destinations such as employment areas, shopping centers, schools, recreational opportunities, and residential communities. Regional access is provided by U.S. Highway 101 and State Route 152. Local access is provided by a variety of roadways (Refer to Figure 2.1-1).

U.S. Highway 101 is a major north-south freeway that extends from southern California to northern California. The freeway serves as the primary roadway connection between Gilroy and Morgan Hill and other county communities to the north and between Gilroy and

Salinas to the south. Three interchanges are located within the city at Leavesley Road, Tenth Street/State Route 152, and Monterey Street. A fourth interchange at Masten Avenue north of Gilroy in unincorporated Santa Clara County serves the north and northwestern areas of Gilroy.

State Route 152 is a two- to four-lane east-west highway that extends to the east over the Pacheco Pass to Interstate 5 and through Los Banos. West of Gilroy, State Route 152 extends over the Santa Cruz Mountains to Watsonville and State Route 1. Between Santa Teresa Boulevard and Monterey Street, State Route 152 is designated as First Street.

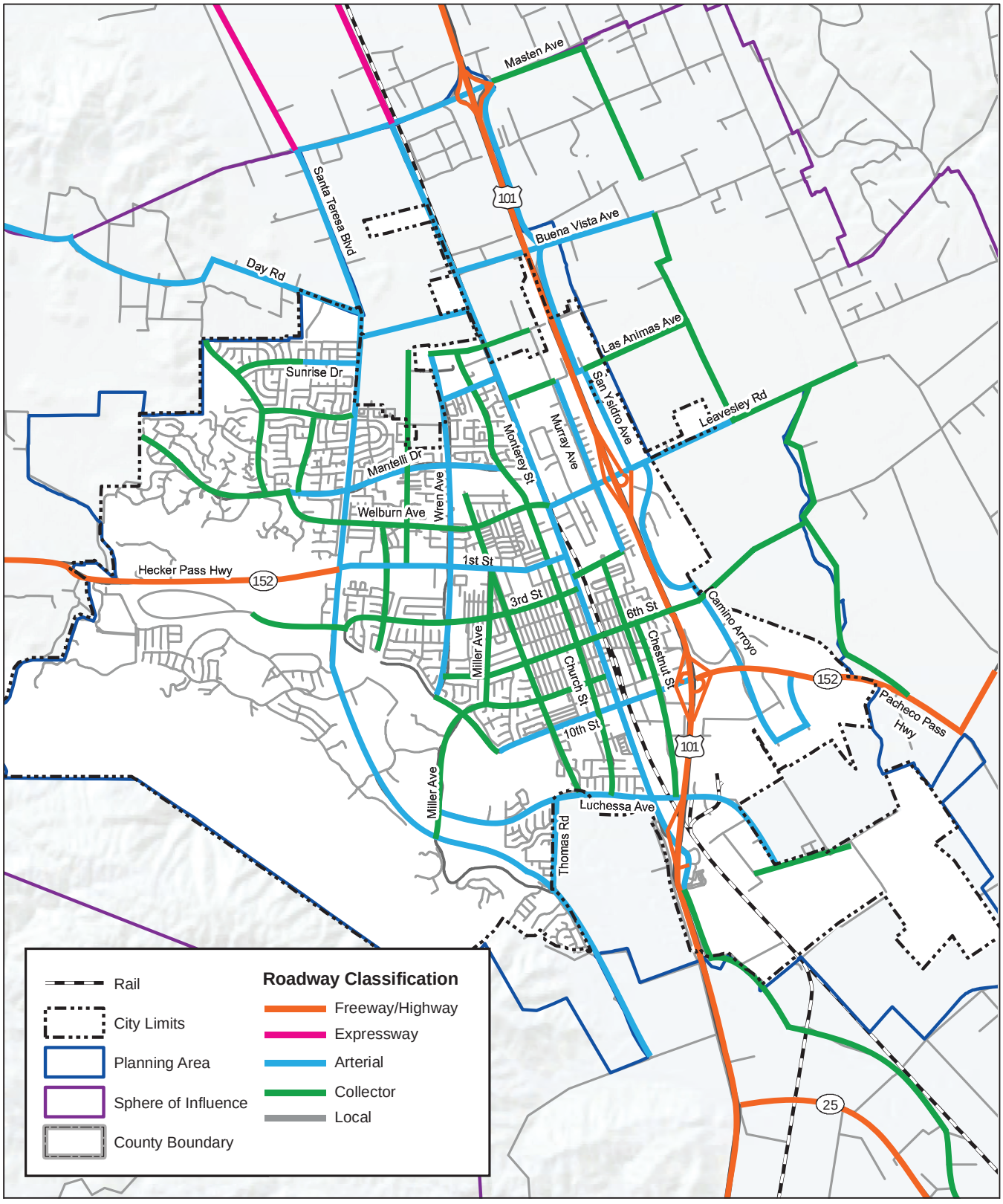
The traffic report identifies 10 important north-south roadways within and adjacent to the city that range in classification from two- to four-lane arterials, collectors, and roadways. These include: Monterey Street, Santa Teresa Boulevard, Church Street, Chestnut Street, Murray Avenue, Wren Avenue, Kern Avenue, No Name Uno, San Ysidro Avenue, and Arroyo Circle. Thirteen east-west roadways carrying similar roadway classifications are identified. These include: Masten Avenue, Fitzgerald Avenue, Buena Vista Avenue, Day Road, Cohansey Avenue, Sunrise Drive, Mantelli Drive, Leavesley Road, Welburn Avenue, First Street, Third Street, Sixth Street, Tenth Street, and Luchessa Avenue. The existing roadway network is presented in Figure 3.17-1, Existing Roadway Network.

Existing Bicycle Circulation/Facilities

Caltrans standards define three types of bicycle facilities, each of which appropriate for particular settings and conditions. Class I bikeways are two-direction bicycle/pedestrian paths physically separated from streets. Class II bikeways are striped bike lanes on the sides of roadways that are marked by signage and pavement markings, with travel in the direction of adjacent travel lanes. Class III bikeways are signed on-street bike routes, sometimes with painted markings, but no separate lane. Various bicycle facilities are currently provided throughout the city. These are presented graphically in Figure 3.17-2, Existing Bicycle Facilities.

Class I Bikeways. Four Class I bikeways are currently present in the city. The four Class I bikeways are as follows:

- Uvas Creek Trail, located on the north side of Uvas Creek, extends from the Hecker Pass Specific Plan Area (south of Hecker Pass Highway and west of Santa Teresa Boulevard) to the Gilroy Sports Park. Trail access points are located at Santa Teresa Boulevard/Third Street, Wren Avenue, Miller Avenue, Tenth Street, Luchessa Avenue, and at the northwest corner of the Sport Park site,
- Uvas Creek Trail, located on the south side of Uvas Creek, extends from Santa Teresa Boulevard and Third Street to Miller Avenue. Trail access points are located at Santa Teresa Boulevard, Club Drive, Grenache Way, and Miller Avenue,



Source: Hexagon Transportation Consultants 2020

Figure 3.17-1

Existing Roadway Network

Gilroy 2040 General Plan EIR

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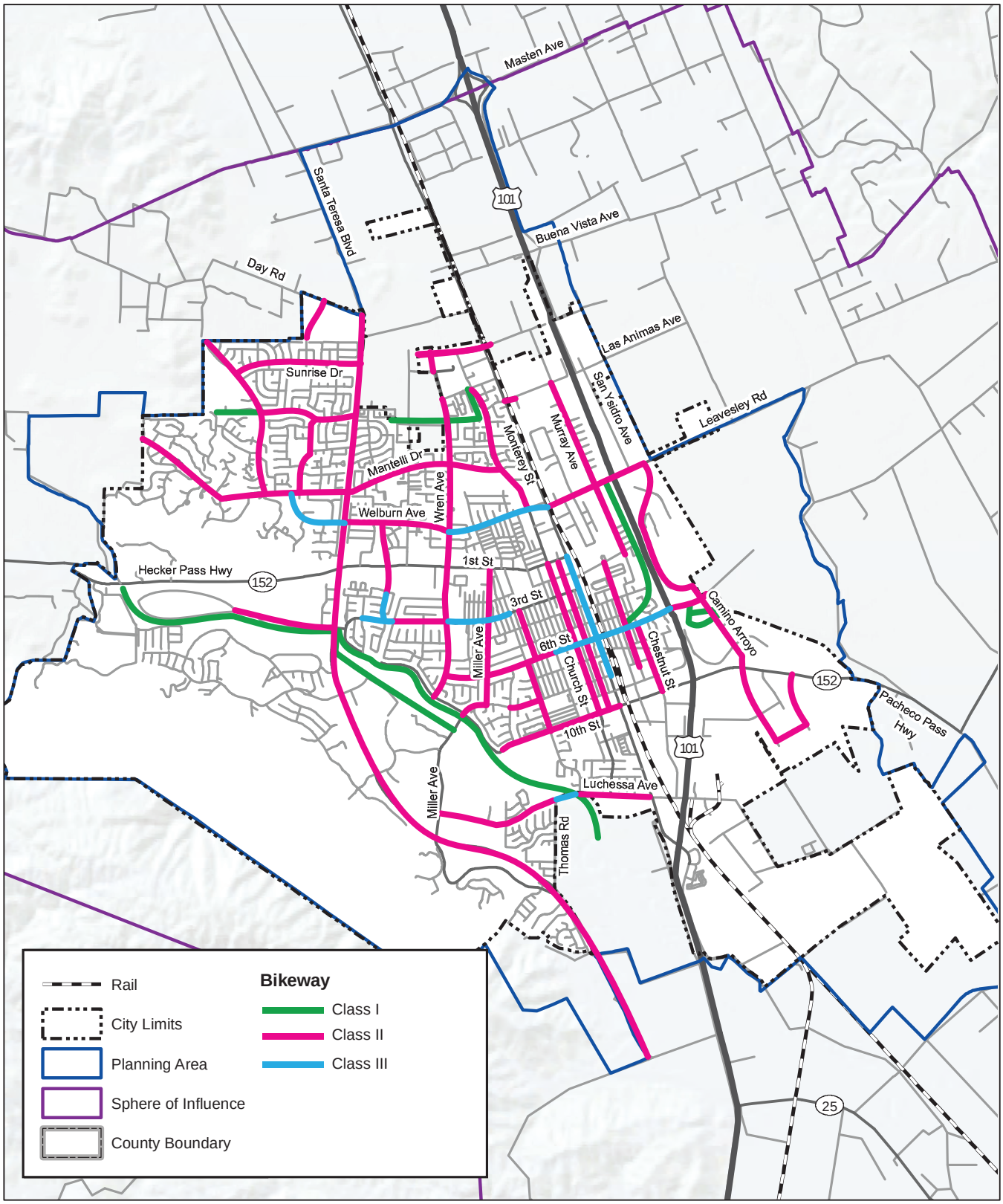

0 1 mile

Source: Hexagon Transportation Consultants 2020

Figure 3.17-2

Existing Bicycle Facilities

Gilroy 2040 General Plan EIR

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- West Branch Llagas Creek Trail is located in the northern section of the city, beginning near the intersection of Kern Avenue and Tatum Avenue and proceeding to Church Street and Farrell Avenue, and
- Wester Ronan Channel Trail is located on the western side of the Ronan Channel between Leavesley Road and Sixth Street.

Class II Bikeways. There are 27 Class II bikeways located on various roadways throughout the city. Please refer to page 20 in the traffic report for a list of Class II bikeways.

Class III Bikeways. Six Class III bikeways are present in the city located on the following street segments:

- Luchessa Avenue, between Thomas Road and Princevalle Street,
- Monterey Street, between First Street and Eighth Street,
- Sixth Street, between Hanna Street and Rogers Lane,
- Third Street, between Laurel Drive and Santa Barbara Drive and between Wren Avenue and Princevalle Street,
- Welburn Avenue, between Mantelli Drive and Santa Teresa Boulevard and Wren Avenue and Monterey Street, and
- Westwood Drive, between Juniper Drive and Third Street.

Several streets such as Monterey Road have wide shoulders, but are not officially provided with bicycle facilities. A Class I bicycle path is planned for Monterey Road and the remainder of Lions Creek. Class II bike lanes are planned for the continuations of Cohansey Avenue and Wren Avenue as described in the 2020 General Plan, *City of Gilroy Bicycle/Pedestrian Plan* (City of Gilroy 2002) and *City of Gilroy Trails Master Plan* (City of Gilroy 2005).

Existing Pedestrian Facilities

Pedestrian facilities are comprised of sidewalks, crosswalks, pedestrian signals, and off-street paths that are meant to provide safe and convenient routes for pedestrians to access destinations such as schools, institutions, businesses, public transportation, and recreation facilities.

Sidewalks and crosswalks are provided throughout most of the city. However, pedestrian facilities are less extensive, and sometimes completely lacking in more rural areas. In limited cases, some streets lack sidewalks on one or both sides. This is the case in older residential neighborhoods and many existing industrial areas. Further, many older neighborhoods lack Americans with Disability Act-compliant curb ramps at street corners.

Significant pedestrian friendly improvements have been made within the Downtown Gilroy Specific Plan (Downtown Specific Plan) area and additional improvements are planned. Improvements include widened sidewalks, bulb-outs, enhanced crossings with curb ramps, street trees and other landscaping improvements, trash receptacles, lighting, and benches. The Downtown Specific Plan also includes pedestrian alleyways, or "paseos" that provide mid-block access between streets.

The city requires sidewalks and curb ramps to be installed when a new development is approved and/or upgrades to existing facilities as needed. Pedestrian signals and Americans with Disability Act-compliant crossings are also required at signalized intersections. New traffic signals and modification to existing traffic signals are required to include proper pedestrian facilities, such as crosswalks and pedestrian push buttons. In this way, pedestrian facilities are being added and/or improved as part of the city's normal development process.

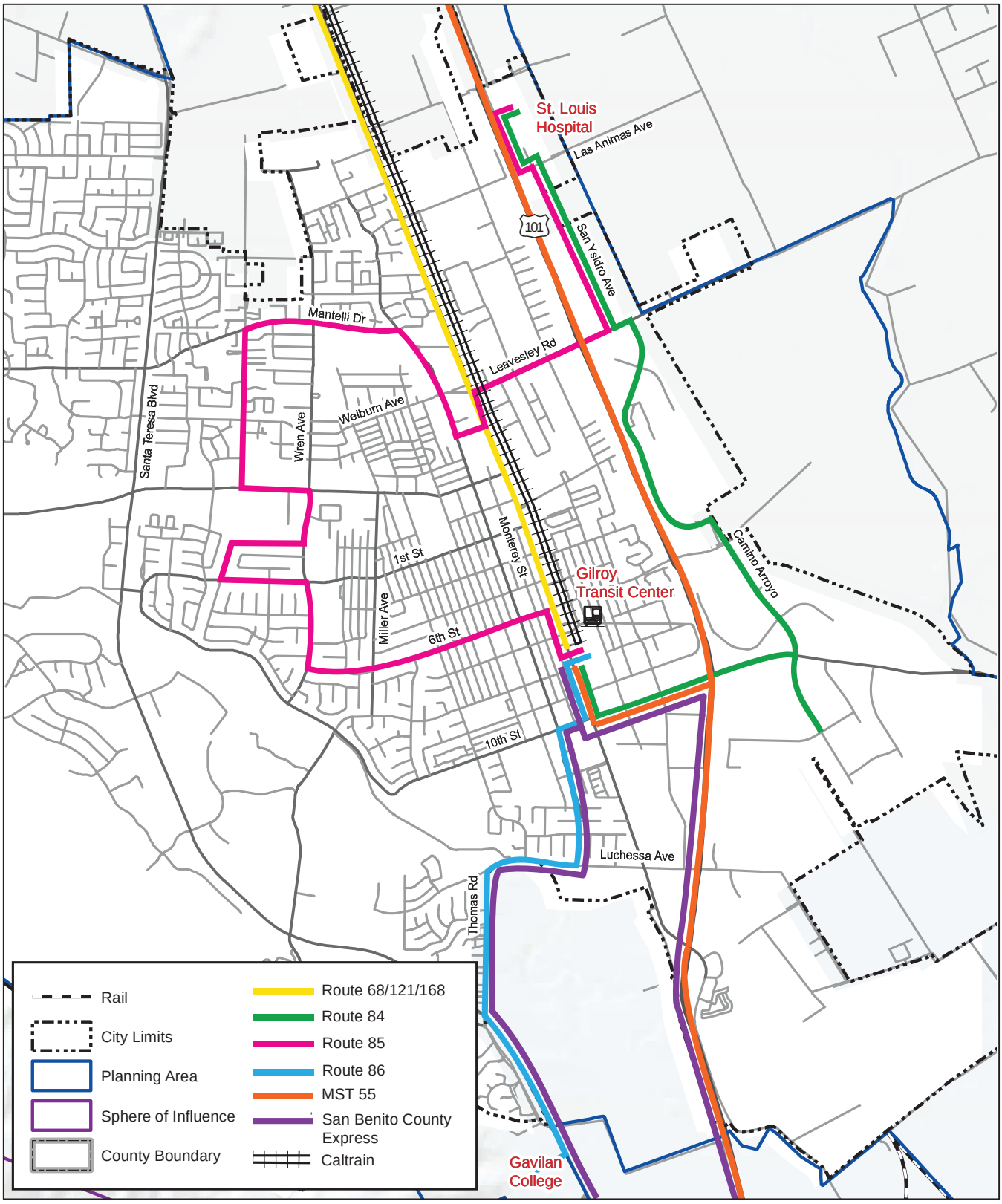
Transit/Alternative Transportation Services

The traffic report discusses existing transit services on pages 21-25. Transit services that serve the city consist of local, regional, and intercity bus services, rail service, and paratransit services. Existing transit service is provided primarily by VTA buses, Caltrain commuter rail service, San Benito County express bus service, Monterey-Salinas Transit bus service, and Greyhound bus service. The transit services that currently operate within the city are described below and shown in Figure 3.17-3, Existing Transit Services. Existing bus services are summarized in Table 5 of the traffic report. Please refer to the traffic report for greater informational detail of each of the transit services described below.

The Gilroy Transit Center, located at Monterey Street and 7th Street, serves as a transfer center for all the transit services listed above. It includes a park-and-ride lot with 471 parking spaces, 10 bike lockers and four bike racks.

VTA Bus Service. A number of VTA bus lines serve the city. These include community bus lines 84, 85, and 86. Line 68 provides weekday and weekend service between the Gilroy Transit Center and the San Jose Diridon Transit Center via Monterey Road. Express Line 121 provides northbound service during the morning commute period and southbound service during the afternoon commute period between the Gilroy Transit Center and the Lockheed Martin Transit Center via Monterey Road. Express Line 168 provides northbound service during the morning commute period and southbound service during the afternoon commute period between the Gilroy Transit Center and the San Jose Diridon Transit Center via Monterey Road. Headways range from 15 minutes to 30 minutes.

Outreach Paratransit Service. VTA contracts with Outreach to provide door-to-door paratransit services for persons with disabilities who are unable to access or use VTA's fixed bus route services. Services are provided by sedans and wheelchair-accessible vans on a shared basis with advance reservation for persons who meet the eligibility criteria established by VTA.



0 0.6 miles

Source: Hexagon Transportation Consultants 2020

Figure 3.17-3

Existing Transit Services

Gilroy 2040 General Plan EIR

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Caltrain. Caltrain provides weekday only train service from Gilroy to San Francisco, with limited-stop service at other stations along the peninsula corridor. Currently, the Gilroy Caltrain station is served by three northbound trains in the morning and three southbound trains in the evening. Caltrain plans to expand service to Gilroy from three to four trains in the 2021-2022 timeframe.

San Benito County Express Bus Service. San Benito County Express operates three shuttles between Hollister and the Gilroy Transit Center. These include a Gavilan College Shuttle that operates Monday through Friday between Hollister, San Juan Bautista, and Gilroy, a Caltrain Shuttle service that operates between Hollister and the Gilroy Transit Center Monday through Friday, and a Greyhound Shuttle service that operates between Hollister and the Gilroy Transit Center on Saturdays and Sundays.

Monterey-Salinas Transit Bus Service. Monterey-Salinas Transit operates Route 55, known as the "Monterey-San Jose Express" with service between the Diridon Transit Station in San Jose and the Monterey Transit Plaza in the City of Monterey, with a stop at the Gilroy Transit Center on weekdays and weekends. This route is also an Amtrak Thruway Bus Route, providing a linkage to the Amtrak Capitol Corridor train service that runs from the San Jose Diridon Transit Center to Sacramento, with stops in between. This route also provides Gilroy residents with access to Monterey, Sand City, and Prunedale.

Greyhound Bus Service. Greyhound Lines, Inc. is an intercity, long distance bus service offering services to over 3,700 destinations in the United States, Canada, and Mexico. The Gilroy Transit Center also serves as the Greyhound Bus Depot in Gilroy. Greyhound buses operate from the Transit Center seven days a week.

Existing and Planned Rail Use and Crossings

One rail line passes through the city. It is predominantly composed of a single main track with passing sidings. It is generally aligned immediately east of Monterey Street. The line extends northward into San Jose and southward into Hollister and Salinas. The U.S. Highway 101 flyover in the south part of town is the only grade-separated crossing of the rail line. From Masten Avenue in the north to Luchessa Avenue in the south, there are a total of 13 at-grade railroad crossings in the city. Rail crossings are of note because traffic, bicycle and pedestrian safety at such crossings could change with increased traffic and increased use of non-vehicular modes of transportation that would occur with implementation of the Gilroy 2040 General Plan. Further, modifications to existing and construction of new rail crossings will be needed to accommodate the roadway network needed to serve the city under 2040 buildout conditions.

The existing rail line is currently used by several transportation providers. Caltrain provides passenger train service with three northbound trains in the morning commute period and three southbound trains returning in the evening commute period, Gilroy is the southern

terminus of Caltrain service. Amtrak utilizes the rail line, but does not stop in the city. The Union Pacific Railroad provides freight rail service to and through the Gilroy. An average of four freight trains per day through the Gilroy area in 2010, the most recent year for which data is available.

The Transportation Agency for Monterey County (TAMC) has completed 75 percent design and has complete funding for the Monterey County Rail Extension Project. This project will connect the Gilroy train station to the Salinas train station and add a third rail line south of the Gilroy station along the Union Pacific corridor.

If and when it is constructed, the planned and approved California High-Speed Rail service will be the dominant form of rail transport through the city. In 2008, California voters approved Proposition 1A to build a high-speed train system between northern and southern California. The train would operate at speeds up to 220 miles per hour on a dedicated, separated track. The California High-Speed Rail Authority selected Gilroy as a station site for the section that would link San Francisco with the Central Valley via the Pacheco Pass. It is projected that 111 trains will run through Gilroy in each direction on an average weekday when the system is in full operation, about 70 which will stop in Gilroy. Average weekday ridership is project to be 13,400 passengers boarding or arriving in Gilroy, resulting in a demand of around 6,400 parking spaces and up to 300 cars dropping off or picking up passengers in a peak hour. Future planning efforts will include a High-Speed Train Station Area Planning Project (Phase II) and a High-Speed Train Specific Plan (Phase III).

The environmental and safety impacts of constructing and operating the high-speed train from the Bay Area to Merced are being evaluated in a separate environmental review process. The California High-Speed Rail Authority completed and certified the Bay Area to Central Valley High-Speed Train Partially Revised Final Program Environmental Impact Report in 2012. To assess impacts of operating a high-speed rail project in Gilroy, the California High-Speed Rail Authority is undertaking project level CEQA analyses. The city's analysis included a Station Area Plan as an update to the Downtown Specific Plan. However, after reviewing a comparative assessment of the High-Speed Rail potential alignments in Gilroy, the City Council in 2017, decided to place the Station Area Plan project on hold until the California High-Speed Rail Authority has identified a preferred alignment alternative as a part of its Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the San Jose to Merced segment of its system (City of Gilroy 2015b). The California High-Speed Rail Authority recently released the preferred alternative for the San Jose to Merced segment for public comment (California High-Speed Rail Authority 2020). Given the separate prior and current analysis of high-speed rail operations in the separate environmental review processes, an analysis of high-speed train operational or safety issues is not provided in this EIR.

Regulatory Setting

State Regulations/Legislation

California Green Building Standards Code. The California Green Building Standards Code includes requirements for bicycle parking and designated parking for low-emitting, fuel efficient, carpool, and vanpool vehicles for commercial and industrial development.

Senate Bill 743. On September 27, 2013, Governor Brown signed Senate Bill 743. Among other things, SB 743 creates a process to change the way transportation impacts are analyzed under CEQA. As noted previously environmental review of transportation impacts focuses on the delay that vehicles experience at intersections and on roadway segments. That delay is often measured using the LOS metric. Mitigation for increased delay often involved increasing capacity (i.e. the width of a roadway or size of an intersection), which could increase auto use and emissions and discourage alternative forms of transportation. Under SB 743, the focus of transportation analysis shifts from driver delay to the reduction of GHGs, creation of multimodal networks and promotion of a mix of land uses. The CEQA Guidelines were amended in 2018 to incorporate the requirements of SB 743 and provide an alternative VMT metric for evaluating transportation impacts. LOS is no longer the metric used to evaluate the significance of transportation impacts under CEQA.

Assembly Bill 1358. The "Complete Streets" bill requires the circulation element of a general plan to provide for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context.

California Senate Bill 375 (Sustainable Communities Strategy). This 2008 bill sets 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. The sustainable communities strategy must promote compact, mixed-use commercial and residential development. Two performance targets are mandated by SB 375: reduce the state's per-capita CO_2 emissions from cars and light-duty trucks by 15 percent by 2040, and provide adequate housing by requiring the region to house 100 percent of its projected population growth by income level. Plan Bay Area integrates land use strategies by establishing priority development areas, and identifying how the Bay Area can accommodate residential growth through 2040. Each of California's metropolitan planning organizations must prepare 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 organization, 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.

In 2013, the San Francisco Bay Metropolitan Transportation Commission and the Association of Bay Area Governments (ABAG) jointly approved Plan Bay Area, which includes the region's Sustainable Communities Strategy and the 2040 Regional Transportation Plan. Plan Bay Area includes a target of reducing GHGs to 15 percent below 2005 levels by 2040. If the GHG reduction target is not met, transportation projects would not be eligible for state transportation funding. See the discussion of Plan Bay Area below.

Caltrans California Transport Plan. The California Transportation Plan is a long-range policy framework for meeting statewide mobility needs and reducing GHGs. The California Transportation Plan defines goals, performance-based policies, and strategies to achieve a vision for a statewide, integrated, multimodal transportation system. The California Transportation Plan also will guide transportation investments and decisions by all levels of government, the private sector, and other transportation stakeholders. Goals of the plan include preserving and improving the multimodal mobility system and accessibility, supporting a vibrant economy, fostering livable and healthy communities, promote social equity, and practice environmental stewardship (California Department of Transportation 2015). Caltrans is currently updating the plan to extend to 2050 and expects implementation of the 2050 plan in 2021. Updated goals include encouraging efficient development patterns, equitable infill development within existing communities, protection of the state's most valuable environmental and agricultural resources and continued reduction of transportation-related GHG emissions to 1990 levels by 2050. (California Department of Transportation 2020)

California Public Utilities Commission – Rail Crossings. The California Public Utilities Commission has legislative responsibility for ensuring that highway-rail and pathway-rail crossings are safely designed, constructed, and maintained. The California Public Utilities Commission evaluates requests to construct new rail crossings or modify existing crossings, and investigates train-related incidents that occur at rail crossings and complaints regarding rail crossings safety or conditions. Construction of new or modification of existing rail crossings is subject to California Public Utilities Commission's discretionary approval pursuant to General Orders including General Order 88-B.

Variables in construction of new and modification of existing crossings include: clearances on railroads and street railroads as to side and overhead structures, parallel tracks and crossings, types of pavement construction at railroad grade crossings, warning devices for at-grade railroad crossings, alterations of railroad crossings, design, construction and operation of light rail transit systems, and regulations governing state safety oversight of rail fixed guideway systems. Minor alterations to existing rail crossings may be approved by letter subject to General Order 88-B. Minor alterations may include roadway widening within the existing right-of-way, approach grade changes, track elevation changes, roadway

realignment within the existing or contiguous right-of-way, change in the type or addition of an automatic signaling device, the addition of one track within existing railroad right-of-way, alteration or reconstruction of a grade-separated crossing, or construction of a grade-separation that eliminates an existing at-grade crossing (California Public Utilities Commission 2020).

Plan Bay Area/Regional Transportation Plan

Transportation planning and improvement financing within the nine counties in the Bay Area, including Santa Clara County, is conducted by the Metropolitan Transportation Commission. The Metropolitan Transportation Commission is also the metropolitan planning organization for the region. Metropolitan Transportation Commission is charged with preparing and updating the Regional Transportation Plan. The Regional Transportation Plan provides guidance for planning and funding a range of transportation modes and facilities including highways, transit systems and facilities, airports, rail facilities, and bicycle and pedestrian facilities.

Plan Bay Area: Strategy for a Sustainable Region. Plan Bay Area: Strategy for a Sustainable Region (Plan Bay Area) (Association of Bay Area Governments/ Metropolitan Transportation Commission 2017a) is the current Regional Transportation Plan. It also functions as the Metropolitan Transportation Commission's Sustainable Communities Strategy pursuant to SB 375 as described above. The plan was adopted in July 2017 by the Association of Bay Area Governments and Metropolitan Transportation Commission. The plan sets forth a strategy for development of the Bay Area's transportation infrastructure. Plan Bay Area integrates land use and transportation strategies by establishing priority development areas and identifies how the Bay Area can accommodate residential growth through 2040. Performance targets are included that address climate protection, adequate housing, healthy and safe communities, open space and agricultural preservation, equitable access, economic vitality, and transportation system effectiveness. It also includes detailed facility and service investments and funding strategies that identify how federal, state, and local transportation funding will be allocated to maintain, manage, and improve the region's transportation system.

The primary goal of Plan Bay Area is to accommodate the majority of future growth in Priority Development Areas (PDAs). PDAs include infill areas within a city usually served by transit, such as historic downtowns and underutilized commercial strips. Plan Bay Area also helps to preserve regionally significant open space in Priority Conservation Areas (PCAs) that are under near term development pressure. The PDAs and PCAs are complimentary to each other. Projections for the region's population, housing, and job growth within existing urbanized areas are provided and used in significant part to allocate growth into PDAs and to support such growth through transportation infrastructure improvement planning and funding. These projections demonstrate that the region has the capacity to accommodate expected growth over the next 20 years without sprawling further into undeveloped land on the urban fringe.

Plan Bay Area projections for job growth and housing growth within three subregions in the Bay Area are identified on page 46 and in Tables 4.2 and 4.3 of the plan. County percentages of the overall job and housing growth for the region are provided in Map 4.2 and Map 4.3. The total job growth in the plan area is expected to reach 4,700,000 new jobs by 2040, with 378,000 jobs (30 percent) occurring in Santa Clara County. Total new housing units in the plan area is projected at 3,430,000, with 257,000 units (31 percent) occurring in Santa Clara County by 2040.

According to the Plan Bay Area Land Use Modeling Supplemental Report (Association of Bay Area Governments/ Metropolitan Transportation Commission 2017b, page 37), which is an appendix to the plan, the City of Gilroy is anticipated to provide 23,000 new households in 2040 with 3,400 of them located within a designated PDA, and a total of 17,200 new jobs with 4,800 new jobs located within a designated PDA (ibid, page 44). ABAG predicts that Gilroy will have a slow rate of growth (0.44 percent average annual growth rate) with about 70,735 residents in 2040. Under the ABAG projections, Gilroy's population would be 2.7 percent of Santa Clara County's population by 2040 (ABAG 2020).

The development potential of the Gilroy 2040 General Plan includes up to 6,477 new housing units (single-family and multi-family), with an additional population of approximately 19,756 persons and 21,434 new jobs. While buildout of the Gilroy 2040 General Plan may well occur after the 2040 planning horizon, the city is planning for more total job-producing growth than projected in Plan Bay Area.

The city contains one designated priority development area and one potential priority development area as defined in Plan Bay Area. The priority development area for Downtown Gilroy encompasses 207 net acres and is designated as a transit town center. The 2005 Downtown Gilroy Specific Plan area provides guidance for development within the designated priority development area. The specific plan update initiated as part of the High-Speed Rail Station Area Master Plan effort will expand the boundaries of the Downtown Gilroy Specific Plan and may result in future expansion of the downtown priority development area. Infill development within the downtown priority development area is expected to have lower air quality impacts than development at the periphery of the city. VTA has also identified a future mixed-use corridor along First Street between east of Monterey Road as a future potential priority development area. If pursued, this potential priority development area would encompass 215 net acres and connect to the current downtown priority development area (Santa Clara Valley Transportation Authority 2020).

Plan Bay Area includes transportation improvements to the U.S. Highway 101/Buena Vista Avenue interchange and U.S. Highway 101/State Route 25 interchange in the Gilroy area that are designed primarily to support growth in the PDAs (Association of Bay Area Governments/Metropolitan Transportation Commission 2017a).

The Plan Bay Area Sustainable Communities Strategy component emphasizes compact, mixed-use commercial and residential development with a goal towards reducing per capita

GHG emissions by 15 percent by 2040 relative to a 2005 baseline. The target would be met with implementation of the strategies and measures outlined in the strategy.

Santa Clara Valley Transportation Authority

Regional Transportation Plan. VTA serves as the Congestion Management Agency for Santa Clara County and operates the county's transit system. The *Valley Transportation Plan 2040* (Santa Clara Valley Transportation Authority 2014) is VTA's countywide Regional Transportation Plan for Santa Clara County. VTA periodically updates this 25-year plan. The plan includes a planning and policy framework for developing and delivering future transportation projects. Location-specific improvements for all modes of travel are covered in three major program areas: highways, local system, and transit. The highways program includes major freeway improvements, local freeway interchanges, and express lanes, with examples that include the U.S. Highway 101/Buena Vista Avenue interchange and Fitzgerald Avenue/Masten Avenue realignment at Monterey Road. The local system includes local roadway improvements, expressway improvements, pedestrian and bicycle projects, and technology-related projects, with examples that include the Tenth Street bridge project, Uvas Creek Valley Water service road trail, and Gilroy downtown parking management. The transit program includes projects related to transit efficiency and new transit improvements in and around Gilroy such as the Caltrain South County project and Gilroy community bus signal priority project.

Congestion Management Agency Function. VTA is also the Congestion Management Agency tasked with preparing the Congestion Management Plan. The VTA works with Metropolitan Transportation Commission, transit agencies, local governments, Caltrans and the air district for this purpose. VTA's *Congestion Management Program* (2017) describes the strategies VTA will use to address congestion problems, improve land use decision-making and improve air quality. The plan includes transportation improvements, a capital improvement program, LOS standards for highways and arterials, multimodal performance standards, a program for analyzing land use decisions, and a travel demand management program.

The congestion management network consists of state highways, principal arterials, and key transit routes. In the vicinity of Gilroy, the congestion management network includes the state highways, Monterey Road, the Monterey Road/ Leavesley Road/Welburn Avenue intersection, and Caltrain (ibid).

Transit Sustainability Policy. VTA adopted its Transit Sustainability Policy in 2007 and updated the policy in March of 2010 (VTA 2010). The Transit Sustainability Policy is a ridership-based policy "developed to help deliver successful, cost-effective projects and services, not to screen out particular services, projects or modes. It provides a common process for improving transit service that can be applied to any project or service regardless of mode or location." The policy also provides service performance standards for existing and new transit services. Transit Service Design Guidelines, updated in September 2019 (VTA 2019) implement the Transit Sustainability Policy by defining the characteristics of

various levels of transit service, from local shuttles to regional express busses, to light rail. Average boarding per revenue-hour is the primary standard by which the adequacy of transit service is evaluated. This metric indicates how well service is utilized given the hours of service, whether the transit capacity offered is appropriate, and how well capital and operating resources are used. VTA has an adopted goal of 95 percent on-time performance for both bus and light rail service set in 2008 (Santa Clara Valley Transportation Authority 2008a).

Santa Clara Countywide Bicycle Plan. The *Santa Clara Countywide Bicycle Plan* (Santa Clara Valley Transportation Authority 2018) establishes a network of regional bikeways, and includes policies for the Santa Clara Valley Transportation Authority's encouragement of bicycle facility development. The *Bicycle Technical Guidelines* (ibid 2012) provide design guidance for construction of roads, parking, and other facilities either specifically for bicycles or shared by bicycles.

City of Gilroy

Draft VMT Guidelines. The city's Draft VMT guidelines have established an impact threshold of 15 percent below the citywide average residential VMT of 16.46 and citywide average employment VMT of 20.14 (baseline). If a project is found to have a significant impact on VMT, the impact must be reduced by modifying the project to reduce its VMT to an acceptable level (below the identified thresholds of significance), mitigating the impact through multimodal transportation improvements, and/or establishing a trip cap.

Traffic Circulation Master Plan. The *City of Gilroy Traffic Circulation Master Plan* (Higgins Associates 2004) ("circulation master plan") provides guidance for implementing the circulation improvements and policies described in the 2020 General Plan. The circulation master plan provides more detailed information with respect to concepts of the improvements required to the transportation system as defined in the 2020 City of Gilroy General Plan Circulation Element.

Recommended improvements to the road network include roadway system improvements, intersection system improvements and bridge improvements. The objective of the circulation master plan is to provide conceptual design detail and cost estimates of transportation network improvements required for 2020 General Plan buildout conditions. The document includes the following objectives: 1) establish transportation system design and planning criteria, 2) evaluate the existing transportation system, 3) perform a system wide analysis of 2020 General Plan buildout needs, 4) determine the necessary improvements to support 2020 General Plan buildout, and 5) develop quantities and cost estimates for identified improvements.

The circulation master plan was used as an input to designing the proposed 2040 circulation network as further described in the Analysis, Impacts, and Mitigation section below. It is likely that the city will update the circulation master plan after the Gilroy 2040 General Plan is adopted.

Utilities and Traffic Facilities Fee Study. The city's *Utilities and Traffic Facilities Fee Study* (Muni Financial 2004) was completed to identify the amount and traffic impact fee structure needed to fund transportation system improvements defined in the circulation master plan. The city continues to collect traffic fees based on the analysis contained in this document, but periodically updates the fees. The last update occurred in 2019 (City of Gilroy 2019). Traffic impact fees are collected from residential, commercial, and industrial development.

Gilroy Complete Streets Policy. The Gilroy City Council adopted a Complete Streets Policy in November 2012. The policy requires complete street infrastructure to be incorporated into all planning, funding, design, approval, implementation of public and private development projects. "Complete Streets" are defined by the Council policy as a comprehensive, integrated 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.

Municipal Code. The City of Gilroy Municipal Code contains a variety of standards related to transportation and mobility. Chapter 21, Subdivisions and Land Development, includes standards for roadways, parking, bikeways, and pedestrian facilities. Chapter 25B provides details on the city's Transportation Demand Management program. Chapter 30, Zoning, includes off-street parking standards and specifications. Chapter 10, Article 10 (19 – 28) identifies regulations for providing emergency access and for review of projects for adequacy regarding emergency access.

Thresholds of Significance

Pursuant to Senate Bill 743, the current CEQA Guidelines Update in late 2019 includes VMT as the replacement metric for LOS in the context of CEQA. In recent case law, *Citizens for Positive Growth & Preservation v. City of Sacramento* (https://www.courts.ca.gov/opinions/documents/C086345.PDF) the Third District Court of Appeal rejected challenges to the traffic analysis in the City of Sacramento 2035 General Plan and EIR. This court decision is widely considered to have ended considering traffic congestion as a significant impact under CEQA. While OPR emphasizes that a lead agency has the discretionary authority to establish thresholds of significance, the CEQA Guidelines Section 15064.3. suggests criteria that indicate when a project may have a significant, or less than significant, transportation impact on the environment. A project that results in VMTs greater than a regional average for the land use type (e.g. residential, employment, commercial) may indicate a significant impact.

The VMT analysis considers OPR's recommended 15 percent below baseline conditions as the threshold to identify potential VMT impacts. The city's Draft VMT Guidelines have established an impact threshold of 15 percent below the 2017 baseline citywide average daily residential VMT of 16.46 VMT per capita and average daily employment VMT of 20.14 VMT per job. Therefore, the impact of growth on transportation would be considered

significant if it results in VMT per capita or per job that is greater than either or both average daily 13.99 VMT per capita and average daily 17.12 VMT per job.

The City of Gilroy CEQA thresholds of significance no longer apply as SB 743 requirements replaced those thresholds. The Office of Planning and Research recommends the following:

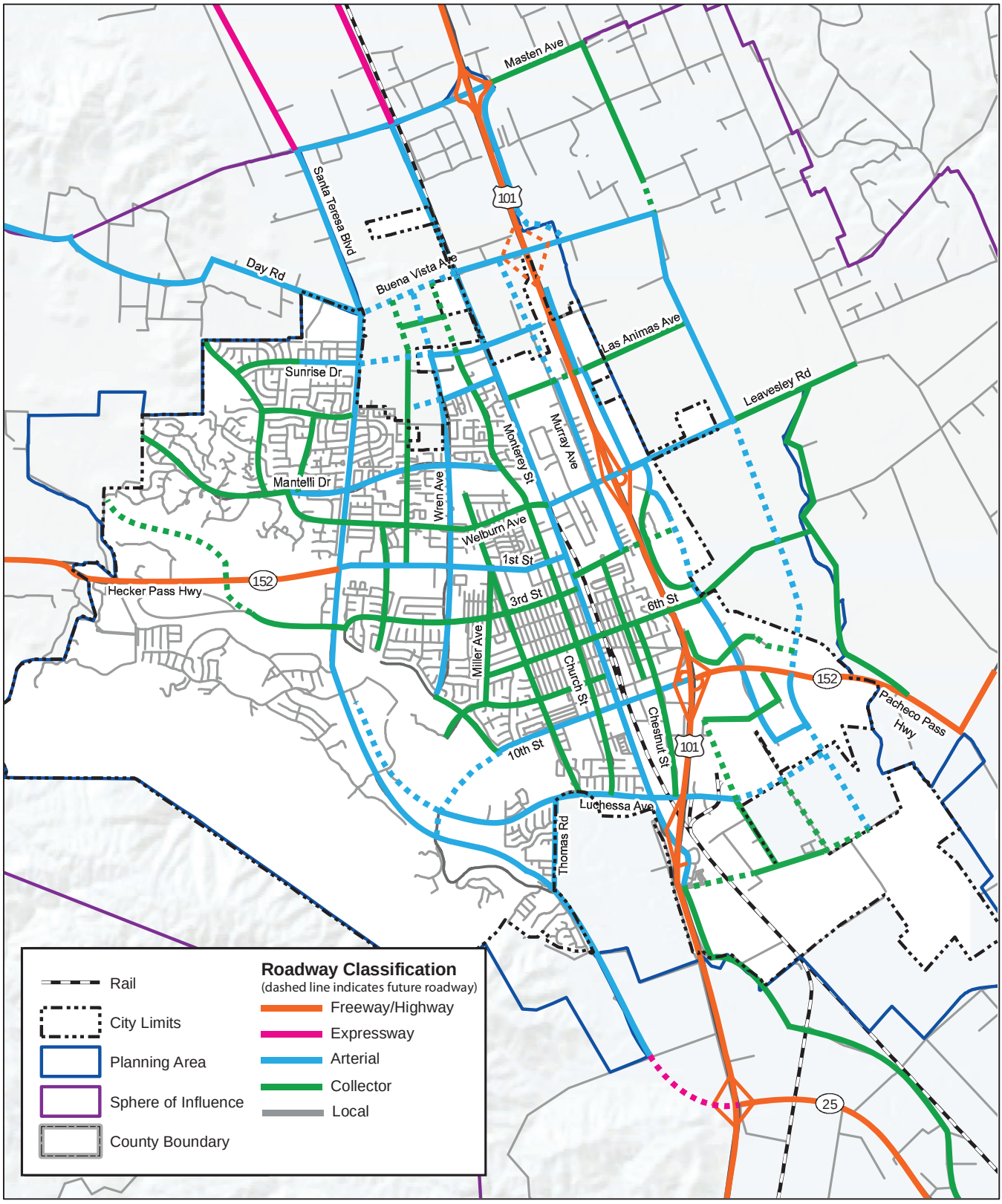
- Conflict with a program, plan, ordinance or policy addressing the circulation system including transit, roadways, bicycle and pedestrian facilities.
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (B). The threshold is 15 percent below the current average of 16.46 daily VMT per resident and 20.14 daily VMT per job.

Traffic Analysis Assumptions

Traffic Report Gilroy 2040 General Plan Buildout Timing. The traffic report assumes that all growth (buildout of all land uses) associated with The Gilroy 2040 General Plan would occur by the year 2040. In reality, it is unlikely that buildout will occur by 2040. Correspondingly, the evaluation of impacts in the traffic report is conservative.

Gilroy 2040 General Plan Roadway Network. The traffic report assesses impacts of Gilroy 2040 General Plan buildout with the assumption that the city's existing roadway network would be expanded to include a number of new improvements. Local roadway network improvements were defined based on the location of proposed land development and on an assumption that the minimum required number of lanes to serve the projected growth would be provided. VTA Valley Transportation Plan 2040 improvement projects (described in the Regulatory Setting above) in the Gilroy area are also assumed to be part of the 2040 road network. The baseline preferred roadway network was incorporated into the Gilroy Traffic Forecasting Model as the starting point for evaluating projected traffic conditions under Gilroy 2040 General Plan buildout conditions. The baseline circulation network is illustrated in Figure 3.17-4, Gilroy 2040 General Plan Roadway Network. As summarized starting on page 4 of the traffic report, the baseline circulation network includes the following improvements:

- 19 local roads, with improvements focused on road widening and road extensions,
- ten new intersections (assumed to be unsignalized),
- two new U.S. Highway 101 overcrossings, a new U.S. Highway 101/Buena Vista interchange,
- new State Route 152 Alignment between State Route 156 and U.S. Highway 101,
- a new U.S. Highway 101/State Route 25 interchange, and
- ten VTA Valley Transportation Plan 2040 improvements including the two U.S. Highway 101 interchanges, State Route 152 realignment and widening, and signalization of State Route 152 and Ferguson Road, and seven local street and county road projects (summarized in the traffic report Table 2).



Source: Hexagon Transportation Consultants 2020

Figure 3.17-4

General Plan 2040 Roadway Network

Gilroy 2040 General Plan EIR

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Gilroy 2040 General Plan Bicycle Network. The planned bicycle network in the 2040 Gilroy General Plan, the City of Gilroy Bicycle/Pedestrian Transportation Plan, and the City of Gilroy Trails Master Plan all indicate that a variety of bicycle facilities are planned in the Gilroy area. The majority of the planned facilities consist of bike lanes, with a few bike paths that would connect to or extend existing bike path facilities, and some bike routes mainly located within the central Gilroy Area (including downtown Gilroy). Planned improvements include eight Class I Bikeways and bicycle/pedestrian trails, 29 Class II Bikeways, and six Class III Bikeways. Additionally, the VTA Valley Transportation Plan 2040 identifies various bicycle projects in the Gilroy area. The bicycle projects identified in the Valley Transportation Plan 2040 located in the Gilroy area are summarized in Table 3 of the traffic report. Planned bicycle improvements are shown in Figure 3.17-5, 2040 General Plan Planned Bicycle Facilities.

Gilroy 2040 General Plan Pedestrian Network. The City of Gilroy requires developers to construct sidewalks and curb ramps when a new development is proposed, or to upgrade them as needed if a sidewalk already exists in the project area. Pedestrian signals and ADA-compliant crossings also are required at signalized intersections. New traffic signals and modifications to existing traffic signals are required to include proper pedestrian facilities. This process ensures that additional pedestrian facilities are being added and/or improved as part of the city's normal growth process. New pedestrian trips most likely would be made to pedestrian destinations within the city (such as pedestrian trails, commercial areas, parks, schools, and others). New sidewalks, in addition to planned pedestrian trails, would provide an enhanced

Gilroy 2040 General Plan Transit Network. The VTA Valley Transportation Plan 2040 lists two planned transit projects in Gilroy: 1) the construction of a double track segment on the Caltrain line between San Jose and Gilroy and 2) improvements to the Gilroy Caltrain Station to accommodate and support the future High-Speed Rail project.

The TAMC Monterey County Rail Extension will require the addition of a third rail line from the Gilroy Cal Train Station south to the U.S. Highway 101 overcrossing, requiring improvements at the 10th Street and Luchessa Avenue railroad crossings.

VMT Analysis Methodology

VMT measures the amount and distance people drive by personal vehicle to a destination. VMT is measured by multiplying the number of vehicle trips by the length of those trips, adjusted for the number of people in the vehicles.

The Gilroy Travel Demand Forecasting model was used to calculate daily VMT per capita and daily VMT per employee metrics. Daily VMT per capita and per employee are the metrics used to calculate average trips length per resident and per employee for CEQA purposes. In accordance with OPR guidelines, all proposed projects are required to analyze transportation impacts as a component of environmental review using average trip length per resident and/or per employee as metrics. The daily VMT per resident accounts for trips

that start or end at the home. Daily VMT per employee is calculated based on trips made by people driving to and from work. VMT per capita and VMT per employee were evaluated and are defined as follows:

1. VMT / Capita (residential VMT) = VMT associated with daily *"home-based" vehicle trips* generated by Gilroy residents divided by the population; and
2. VMT / Employee (employment VMT) = VMT associated with daily *"home-based-work" vehicle trips* divided by the number of jobs in Gilroy.

Average daily VMT for all the existing development in the city serves as the baseline from which a project is evaluated.

Analysis, Impacts, and Mitigation

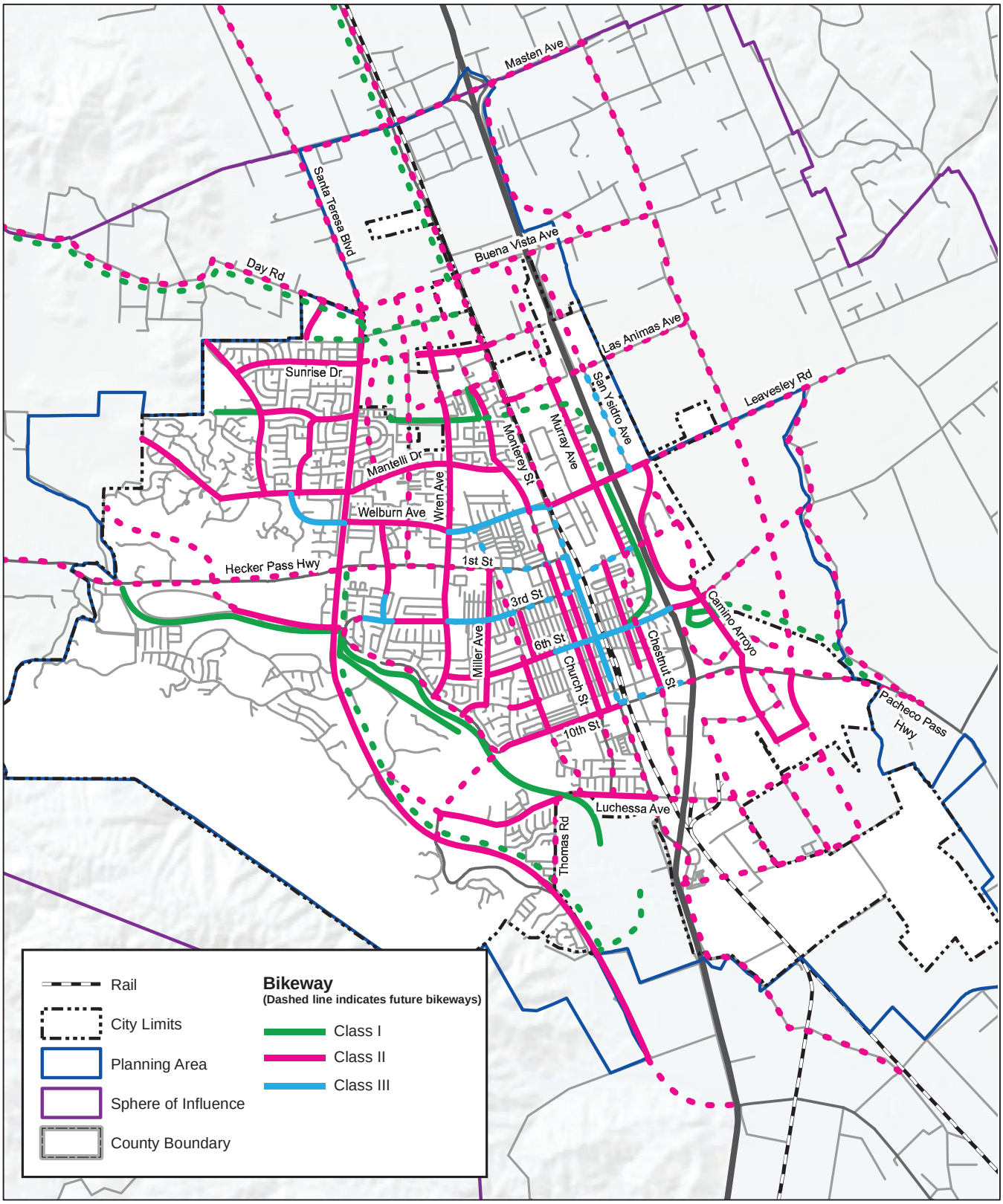
IMPACT	Increase in Vehicle Miles Traveled	Significant and Unavoidable

The results of the VMT evaluation indicate that the Gilroy 2040 General Plan would result in a decrease in average daily residential VMT (-1.84 VMT per capita) and an increase in average daily employment VMT (+1.80 VMT per job) compared to the 2017 baseline citywide average VMT. Both the residential VMT and employment VMT projections under the Gilroy 2040 General Plan conditions would be above the threshold established by the city. The VMT analysis is presented in the traffic report starting on page 26, and the results are presented in Table 3.17-1, City of Gilroy Vehicle Miles Traveled Analysis Summary.

Table 3.17-1 City of Gilroy Vehicle Miles Traveled Analysis Summary

Category	Base Year 2017	Gilroy 2040 General Plan	Change From Baseline	15 Percent Reduction Threshold	Threshold Met? Y/N
Residential VMT[1]	893,941	1,134,166	240,225	-	-
Total Population	54320	77,595	23,275	-	-
VMT per Capita[2]	16.46	14.62	-1.84	13.99	No
Employment VMT[3]	437,578	954,322	516,744	-	-
Total Jobs	21,729	43,499	21,771	-	-
VMT per Job[4]	20.14	21.94	+1.80	17.12	No

Source: Hexagon Transportation Consultants 2020, Table 6.
Notes:
1. Residential VMT = Home-Based Trips x Distance,
2. Residential VMT per Capita = Residential VMT/Population,
3. Employment VMT = Home-Based Work Trips x Distance, and
4. Employment VMT per Job = Employment VMT/Jobs.



Source: Hexagon Transportation Consultants 2020

Figure 3.17-5

General Plan 2040 Planned Bicycle Facilities

Gilroy 2040 General Plan EIR

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As illustrated by the result summary in Table 3.17-1, buildout of the Gilroy 2040 General Plan would reduce average daily residential VMT by 1.84 VMT per capita, or approximately 1.1 percent. On the other hand, buildout of the Gilroy 2040 General Plan would increase average daily employment VMT by 1.8 VMT per job, which is about a 1.1 percent increase. As a result, the project would not meet the city's draft threshold of a 15 percent reduction from the 2017 baseline VMT in either category. Therefore, VMT generated by buildout of the Gilroy 2040 General Plan would be a significant impact.

The City of Gilroy Municipal Code includes a Transportation Demand Management Program (Chapter 25B) that describes the average vehicle ridership goals for Gilroy (up to the year 1999) and lists possible Transportation Demand Management (TDM) measures that can be implemented (TDM program) by an employer in an effort to increase vehicle ridership and reduce the number of vehicles driven to the work site. The average vehicle ridership goal for Gilroy for the year 1999 was 1.35 employees per vehicle. These goals were established in order to achieve and measure progress towards a net increase in the use of commute alternatives and a reduction in vehicle trips. The Code also lists various TDM services and incentives that can be implemented by employers in an effort to reduce trips.

The Santa Clara County VTA, in their 2017 Congestion Management Program document, also lists various TDM strategies that employers, developers, and local agencies can adopt to manage congestion on the transportation network. Below is a list of possible TDM measures, including measures contained with the City Code and VTA's 2017 CMP document, that could be implemented in the City of Gilroy to achieve its goal of reducing vehicle trips/increasing vehicle ridership. Many of these measures are incorporated into the Gilroy 2040 General Plan policies. Applicable TDM measures include the following:

- Ridesharing matching;
- Preferential parking for ridesharing vehicles/carpoolers;
- Carpool/vanpool subsidies or rewards;
- Car-sharing program;
- Bike-sharing program;
- Transit ticket sales/subsidies;
- Provide child care services at workplace;
- Guaranteed ride home;
- Shuttle to transit line;
- Flexible work hours for people who do not drive alone;
- Flexible/alternative hours workweek program;

- Compressed work weeks;
- Work-at-home programs;
- Telecommuting;
- Establishing fees for employees parking or parking cash-out program;
- Membership in a transportation management association that provides TDM services and incentives;
- Contribution to a transportation system management program administered by a member agency;
- Cycling and walking subsidies and rewards;
- Secure bicycle storage;
- Site design amenities that would encourage transit use, ridesharing, cycling, and walking (such as showers and changing rooms);
- Other programs approved by the city's designee to reduce the number of employees who drive alone to the work place;
- Unbundled parking in residential developments;
- Employee pre-tax commuter benefits;
- Alternative cash incentive programs;
- Road pricing/congestion pricing;
- Housing closer to employment areas/transit centers;
- Bicycle and pedestrian improvements; and
- Park and ride lots.

Gilroy 2040 General Plan

The Gilroy 2040 General Plan Policy M 1.7 requires the reduction of VMT by developing a transportation network that makes it convenient to use transit, ride a bicycle, walk, or use other non-automobile modes of transportation. Consistent with this policy, average VMT projections for the City of Gilroy would be reduced by the implementation of measures that reduce the total number of miles traveled, or trips, per person. There are various strategies/measures that can be implemented in an effort to reduce total traveled miles within Gilroy, ranging from policy changes (trip reduction policies) and infrastructure changes (mixed-use development, housing near major transit facilities/employment, easy access to public transportation, enhanced bicycle and pedestrian network) to employer incentives (workplace amenities and incentives, telecommunicating). In addition to the policies contained in its Mobility Element, the Gilroy 2040 General Plan contains a multitude

of other policies and programs with potential to reduce VMT over time (refer to Section 3.3, Air Quality, and Section 3.7, Greenhouse Gases). The VMT information in the traffic report does not account for any net reduction in VMT that may accrue to these policies and programs.

As the proposed land development included in the 2040 General Plan materializes, the demand for bicycle facilities in the Gilroy area would increase. With implementation of planned and proposed bicycle facilities, continuous bicycle facilities would be provided throughout the city and would directly serve existing/planned bicycle destinations, such as schools, parks, and commercial areas. New bicycle facilities also would connect to other existing and planned bicycle facilities providing connections to different parts of the city. The planned bicycle improvements would serve the demand for bicycle facilities created by the 2040 General Plan growth and would promote alternative modes of transportation.

With the implementation of the 2040 General Plan, pedestrian facilities consisting of sidewalks would be installed along all new roadway segments. Additionally, all new signalized intersections would include pedestrian signal phases and ADA-compliant crosswalks. The proposed roadway network under 2040 General Plan conditions (baseline preferred roadway network) would extend existing streets into the development areas and also connect new streets to existing streets, providing for continuous pedestrian facilities within the city. These pedestrian facilities would enhance the currently limited north/south and east/west connections within the city.

As the proposed development projects included in the 2040 General Plan develop, the demand for transit service in the area would increase. As such, coordination will be necessary between the City of Gilroy, VTA, and other transit providers to determine if additional bus services or extensions of other exiting transit services are needed to adequately serve the future demand under 2040 General Plan conditions. If transit service remains unchanged, the lack of adequate transit services in Gilroy potentially could discourage the use of public transportation and increase congestion on local and regional roadways

The Gilroy 2040 General Plan includes a range of goals and policies that address reductions in VMT through the provision of an efficient transportation system. Representative policies and programs are listed below. Implementation programs are identified in the Gilroy 2040 General Plan Mobility Element Table 3-1. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs for the full policy language.

Goal M1: Provide for a safe and efficient transportation system that serves all users.

- M 1.7 Reduce Vehicle Miles Traveled
- M 1.12 Transportation Demand Management

Goal M2: Provide complete streets that balance the diverse needs of users of the public right-of-way.

- M 2.1 Serving All Users
- M 2.5 Complete Street Conversions
- M 2.6 Private Complete Streets
- M 2.7 Safe Street Crossings

Goal M 3: Support bicycling and walking by providing a safe and extensive bicycle and pedestrian network.

- M 3.1 Roadway Design
- M 3.2 New Development
- M 3.3 Sidewalk Network Gaps
- M 3.4 Bicycle and Pedestrian Path Network
- M 3.5 Bicycle and Pedestrian Transportation Plan
- M 3.6 Bicycle and Pedestrian Priority
- M 3.7 Pedestrian and Bicycle Facility Design Guidelines
- M 3.9 Bicycle Parking
- M 3.10 Public Involvement
- M 3.11 Bicycle Parking at City Facilities
- M 3.12 Inter-Regional Bicycle Connectivity
- M 3.13 Road Maintenance and Bicycles
- M 3.14 Safe Routes to School
- M 3.16 Pedestrian Signage
- M 3.17 Traffic Impact Fee for Bicycle/Pedestrian Improvements
- M 3.18 Grant Funding for Facilities and Programs

Goal M 4: Plan for efficient and convenient local and regional transit systems that respond to the changing needs of Gilroy.

- M 4.1 Access to Transit
- M 4.2 Transit and Development

- M 4.3 Regional Transit Services
- M 4.4 Shuttle Service
- M 4.5 Private Transportation
- M 4.6 Santa Clara Valley Transportation Authority (VTA)
- M 4.7 Updated Transit Plan
- M 4.8 Consider Transit in Planning and Development Proposals

Goal M 5: Provide a safe and efficient network of streets for cars and trucks, as well as provide vehicle parking to meet the city's needs.

- M 5.3 Promote Non-Auto Modes of Transportation
- M 5.4 Transportation Performance Metrics
- M 5.10 Capital Improvement Plan
- M 5.11 Parking
- M 5.12 Minimum Parking Standards

Goal M 6: To provide an efficient system for goods movement that adequately serves the industrial and commercial areas of the city while protecting residents from potentially significant adverse impacts.

- M 6.3 Goods Movement by Rail

Goal M 7: Maintain and increase cooperation between Gilroy and neighboring jurisdictions, regional organizations, and relevant State agencies.

- M 7.1 Regional Communication
- M 7.2 County Coordination
- M 7.3 Bridge Crossings
- M 7.4 Intercity Rail
- M 7.5 Intercity Transit
- M 7.6 Expanded Caltrain Service
- M 7.7 High-Speed Rail Coordination

Implementation of the above-referenced policies and programs in addition to policies and programs identified in Section 3.3, Air Quality, and Section 3.7, Greenhouse Gases, could reduce average daily residential and employment VMT by encouraging infill and compact development patterns, and multimodal transportation options. However, the Gilroy 2040

General Plan Implementation Program does not require a review and update of, or a program for developer compliance with, the city's TDM policy or municipal code requirements. Updating and codifying the city's TDM program for consistency with VMT reduction strategies required for CEQA compliance would ensure the implementation of VMT reductions through the development review process as development consistent with the Gilroy 2040 General Plan proceeds over time. Project applicants of future development would be required to work with the City of Gilroy and the VTA to identify TDM programs that can be implemented as part of the specific development project (Policy M 5.3 of the Gilroy 2040 General Plan).

VMT would be reduced, but it is not known if the extent of the reduction would meet the city's goal of 15 percent below the citywide 2017 baseline VMT levels. Therefore, the impact of VMT is considered to be significant and unavoidable. Implementation of the following mitigation measure would reduce VMT associated with the Gilroy 2040 General Plan, but not to a less-than-significant level.

Mitigation Measure

TRANS-1. To reduce vehicle miles traveled, the city shall review and update Gilroy's 1999 Transportation Demand Management program (Municipal Code Chapter 25B) to be consistent with the Gilroy 2040 General Plan and Valley Transportation Authority Congestion Management Plan. A new general plan policy and implementation program shall be added to the Gilroy 2040 General Plan Mobility Implementation Program.

Policy

Transportation Demand Management. Review and update the Transportation Demand Management program for consistency with Gilroy 2040 General Plan and Valley Transportation Authority Vehicle Miles Traveled reduction strategies.

Implementation Programs

1. **Average Vehicle Ridership Goals.** Update the average vehicle ridership goal for Gilroy for the year 2040 to achieve and measure progress towards a net increase in the use of commute alternatives and a reduction in vehicle trips.

2. **Update Municipal Code Chapter 25B.** Update this code chapter to:

    a. Provide guidance to project applicants in identifying possible project-specific Transportation Demand Management measures that can be implemented to reduce Vehicle Miles Traveled and increase bicycle and pedestrian opportunities and vehicle ridership as part of the development review process,

b. List Transportation Demand Management services and incentives that can be implemented by employers that reduce trips, and

c. Establish a five-year review cycle to measure the efficacy of program objectives and adjust the program as needed.

Conclusion

Implementation of this measure in addition to implementation of Gilroy 2040 General Plan goals, policies and programs would reduce VMT, but there is no guarantee that these measures would reduce this significant impact to a less-than-significant level. Therefore, the impact of VMT resulting from implementation of the Gilroy 2040 General Plan would be significant and unavoidable.

IMPACT	The Project Would Not Conflict with a Program, Plan, Ordinance or Policy Addressing the Circulation System, Including Transit, Roadways, Bicycle and Pedestrian Facilities	No Impact

The Gilroy 2040 General Plan would replace the development guidance provided by the existing 2020 General Plan. Therefore, evaluation of the Gilroy 2040 General Plan for consistency with the 2020 General Plan is not applicable. Future individual projects and discretionary actions to be considered by the city would be subject to evaluation for consistency with the Mobility policies and programs contained in the Gilroy 2040 General Plan.

ROADWAY CAPACITY ANALYSIS

This roadway capacity analysis, while no longer required by CEQA, if provided for informational purposes only. No impact conclusions are made regarding roadway capacity and level or service.

The performance of a roadway network can be evaluated for consistency with the Gilroy 2040 General Plan Policy M 5.1 standards in terms of its LOS, which is a measure of the extent of the delay experienced by vehicles. Delay is typically evaluated during worst-case conditions when traffic volumes are at their highest – the peak morning hours of 7:00 AM to 9:00 AM and the peak afternoon hours of 4:00 PM to 6:00 PM. Levels of service range from A to F. LOS A generally indicates free flowing conditions with little congestion or delay, while LOS F indicates highly congested, gridlock conditions with substantial delays. An LOS analysis was performed to address local guidelines and determine conformance to general plan policies.

The traffic report contains detailed information on additional assumptions, level of service standards, and on the methodologies used to evaluate operational performance of traffic facilities under the Gilroy 2040 General Plan. Please refer to the traffic report starting on

page 30 for review of this information. As noted previously, Caltrans and Santa Clara County have adopted level of service standards for roads and highways under their jurisdiction. For both agencies, LOS C is the intersection standard included in the traffic report. Freeway segment operations are evaluated using VTA Congestion Management Plan procedures and methodologies, with LOS E being the level of service standard.

Intersections

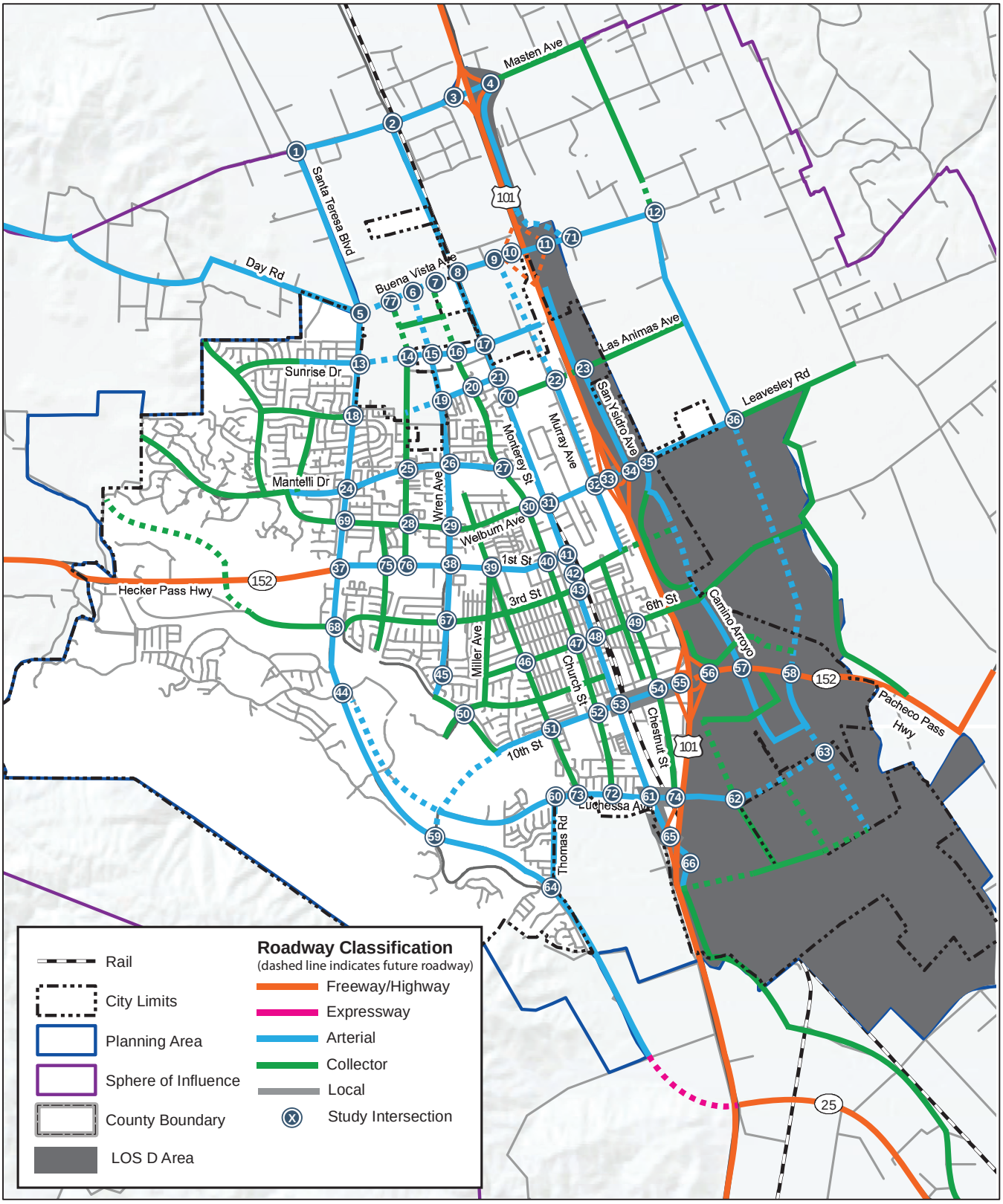
The traffic report analyzed level of service conditions at 39 signalized intersections, 25 unsignalized intersections (including three roundabouts), and 10 future intersections, for a total of 77 study intersections. Sixty-three of the study intersections are located within the City of Gilroy and 14 are located within unincorporated Santa Clara County. Of these, 21 are under Caltrans jurisdiction. The intersection of Monterey Street and Leavesley Road/Welburn Avenue is a CMP-designated intersection. The study intersections are located within the City of Gilroy city limits and nearby unincorporated Santa Clara County, within Gilroy's sphere of influence. The future intersections would be created with the implementation of the local roadway improvements assumed under Gilroy 2040 General Plan conditions. Figure 3.17-6, Study Area Intersections, shows the locations of the study intersections.

Existing Intersection Operations

The current general plan LOS standard for most intersections west of U.S. Highway 101 is LOS C or better. The general plan LOS standard for areas east of U.S. Highway 101 and existing commercial land use designations is LOS D or better. Areas subject to the LOS D standard include the Tenth Street corridor from Monterey Street to U.S. Highway 101, the Luchessa corridor east of Monterey Street, and the Monterey Street corridor from Luchessa Avenue to the Monterey Street/U.S. Highway 101 interchange (refer to Figure 3.17-6). The results of the intersection level of service analysis are presented in Table 13 of the traffic report.

The results of the existing level of service analysis of signalized study intersections indicate that the following intersections currently have operational deficiencies during at least one of the peak hours:

- Intersection # 1. The Santa Clara County-controlled intersection of Santa Teresa Boulevard and Fitzgerald Avenue operates at LOS D or worse during AM and PM peak hours,
- Intersection #2. The Santa Clara County-controlled intersection of Monterey Road and Masten Avenue/Fitzgerald Avenue operates at LOS D during the PM peak-hour),
- Intersection #29. The City of Gilroy-controlled intersection of Wren Avenue and Welburn Avenue operates at LOS D or worse during AM and PM peak hours, and
- Intersection #51. The City of Gilroy-controlled intersection of Princevalle Street and Tenth Street operates at LOS D during the AM peak-hour.



Source: Hexagon Transportation Consultants 2020

Figure 3.17-6

Study Area Intersections

Gilroy 2040 General Plan EIR

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The results of the existing level of service analysis of unsignalized study intersections indicate that the following intersections currently have operational deficiencies during at least one of the peak hours:

- Intersection #4. The Caltrans-controlled U.S. Highway 101 Northbound Ramps and Masten Avenue operate at LOS F during the AM peak-hour),
- Intersection #8. The Santa Clara County-controlled intersection of Monterey Road and Buena Vista Avenue operates at LOS F during AM and PM peak hours,
- Intersection #42. The City of Gilroy-controlled intersection of Monterey Street and IOOF Avenue operates at LOS F during the AM peak-hour, and
- Intersection #76. Caltrans-controlled intersection of Kern Avenue and First Street operates at LOS E during the PM peak-hour.

Intersection Operations under Gilroy 2040 General Plan Conditions

With the assumed Gilroy 2040 General Plan roadway improvements, various new intersections would be created. For the baseline preferred roadway network, all new future intersections were assumed to be unsignalized. In addition, intersection lane geometrics and/or intersection control type at some of the existing study intersections would change as the result of the assumed General Plan roadway improvements. Intersection control type at the following unsignalized intersections is projected to change under Gilroy 2040 General Plan conditions:

- Intersection #8. Monterey Road and Buena Vista Avenue - from one-way stop controlled to two-way stop controlled;
- Intersection #23. San Ysidro Avenue/No Name Uno and Las Animas Avenue - from one-way stop controlled to two-way stop controlled; and
- Intersection #36. Cameron Boulevard/Marcella Avenue and Leavesley Road - from one-way stop controlled to two-way stop controlled.

Assumed lane configuration for 32 intersections including new intersections, and existing intersections where the existing lane configuration is projected to change, are summarized in Table 12 of the traffic report. The lane configuration and traffic control changes for each intersection are shown graphically on Figure 8 of the traffic report.

The traffic report concludes that under Gilroy 2040 General Plan conditions that a number of study intersections would not meet the applicable operational performance standards identified in policy M 5.1. This indicates that portions of the baseline Gilroy 2040 General Plan roadway network will need to be made more robust in order to satisfy the city's level of service policy. The remaining study intersections are projected to have acceptable operating conditions during both the AM and PM peak hours under Gilroy 2040 General Plan conditions.

Operational performance standards for signalized and unsignalized intersections are summarized in the traffic report in Table 7 and Table 8, respectively. The traffic report includes recommended improvements that would return intersection operations to acceptable levels in conformance with the applicable performance standards. Improvements are listed in Table 16 and intersection levels of service under Gilroy 2040 General Plan conditions with improvements are listed in Table 17 of the traffic report.

The identified improvements consist of the minimum changes to each intersection required to maintain the intersection's level of service standard. Subsequent detailed analyses of the improvements would be needed to determine the feasibility of each of the improvements. Such reviews may show that the full intersection improvements, as described above, are not feasible due to right-of-way constraints, detrimental impacts to non-auto modes, or other environmental impacts. If the full intersection improvements are not implemented, the intersection would operate at substandard levels and likely would continue to exhibit some level of operational deficiency.

Alternative transportation system improvements that are focused on making the transportation system more efficient and improving the city's overall multimodal transportation system, may also offset intersection operational performance. Multimodal transportation system improvements could be required in lieu of intersection improvements to offset an operational deficiency, improving the transportation system for all users. However, such improvements may not completely offset the degradation in traffic operations. Site-specific operational deficiencies would be analyzed when future development is proposed as part of the city's development review process.

Deficient signalized intersections and recommended improvements that would cause operations to meet applicable performance standards are summarized below:

- Intersection #1, Santa Teresa Boulevard and Fitzgerald Avenue (Santa Clara County), is projected to operate at unacceptable LOS F during both the AM and PM peak hours under Gilroy 2040 General Plan conditions. Possible improvements include the addition of a second southbound through lane and a separate northbound right-turn lane. With implementation of these improvements, the intersection is projected to operate at acceptable LOS C during both the AM and PM peak hours.

- Intersection #2, Monterey Road and Masten Avenue/Fitzgerald Avenue (Santa Clara County), is projected to operate at an unacceptable LOS D during the PM peak hour under Gilroy 2040 General Plan conditions. Possible improvements include a separate left-turn lane in the eastbound direction, a separate right-turn lane in the westbound direction, and modification of the east-west phasing from split to protected. With implementation of these improvements, the intersection is projected to operate at acceptable LOS C during both peak hours.

- Intersection #5, Santa Teresa Boulevard and Day Road (W)/Buena Vista Avenue (City of Gilroy), is projected to operate at unacceptable LOS F and D during the AM and PM peak hours, respectively, under Gilroy 2040 General Plan conditions. Possible improvements include the addition of separate right-turn lanes in the northbound and southbound directions and reconfigurations of the eastbound approach to provide two left-turn lanes, two through lanes, and a separate right-turn lane and of the westbound approach to provide two left-turn lanes, one through lane, and a separate right-turn lane. With implementation of these improvements, the intersection is projected to operate at acceptable LOS C during both peak hours.

- Intersection #29, Wren Avenue and Welburn Avenue (City of Gilroy), is projected to operate at unacceptable LOS D during both the AM and PM peak hours under Gilroy 2040 General Plan conditions. Possible improvements include the addition of a separate westbound left-turn lane and modification of the east-west phasing from split to protected. With implementation of these improvements, the intersection level of service is projected to improve to LOS C during both the AM and PM peak hours.

- Intersection #31, Monterey Street and Leavesley Road/Welburn Avenue (Caltrans), is projected to operate at unacceptable LOS D during the PM peak-hour under Gilroy 2040 General Plan conditions. Possible improvements include the addition of second left-turn lanes in the northbound and southbound directions. With implementation of these improvements, the intersection level of service is projected to improve to LOS C during both the AM and PM peak hours.

- Intersection #37, Santa Teresa Boulevard and First Street/Hecker Pass Highway (Caltrans), is projected to operate at unacceptable LOS D during the PM peak hour under Gilroy 2040 General Plan conditions. Possible improvements include the addition of a second westbound left-turn lane. With implementation of these improvements, the intersection is projected to operate at acceptable LOS C during both the AM and PM peak hours.

- Intersection #44, Santa Teresa Boulevard and Club Drive (City of Gilroy) is projected to operate at unacceptable LOS E during the PM peak hour under Gilroy 2040 General Plan conditions. Possible improvements include changing the east-west left-turn signal phasing from split to protected. With implementation of this improvement, the intersection is projected to operate at acceptable LOS C during both the AM and PM peak hours under Gilroy 2040 General Plan Conditions.

- Intersection #51, Princevalle Street and Tenth Street (City of Gilroy), is projected to operate at unacceptable LOS D during the AM peak hour under Gilroy 2040 General Plan conditions. Possible improvements include the addition of separate right-turns in the northbound and southbound directions. With implementation of these improvements, the intersection is projected to operate at acceptable LOS C during both the AM and PM peak hours.

- Intersection #66, Monterey Street and U.S. Highway 101 Northbound Ramps (Caltrans), is projected to operate at unacceptable LOS F and E during the AM and PM peak hours, respectively, under Gilroy 2040 General Plan conditions. Possible improvements include the addition of a second left-turn lane in the northbound direction. With implementation of this improvement, the intersection level of service is projected to improve to LOS C during both the AM and PM peak hours under Gilroy 2040 General Plan conditions, and

- Intersection #70, Monterey Road and Las Animas Avenue (City of Gilroy), is projected to operate at unacceptable LOS E during the PM peak-hour under Gilroy 2040 General Plan conditions. Possible improvements include the addition of a separate right-turn lane in the northbound direction and the conversion of the westbound approach to provide one left-turn, one through, and one right-turn lane with protected east-west phasing. With implementation of these improvements, the intersection level of service is projected to improve to LOS C during both the AM and PM peak hours.

Deficient unsignalized intersections or roundabouts and recommended improvements that would cause their operations to meet applicable performance standards are summarized below:

- Intersection #6, Wren Avenue and Buena Vista Avenue (Santa Clara County), is projected to operate at LOS F during both the AM and PM peak hours. Additionally, the intersection traffic volumes would be high enough to satisfy the peak-hour volume traffic signal warrant during both peak hours. Possible improvements include the installation of a traffic signal, which would improve the intersection level of service conditions to acceptable LOS C during both the AM and PM peak hours.

- Intersection #8, Monterey Road and Buena Vista Avenue (Santa Clara County), is projected to operate at unacceptable LOS F during both the AM and PM peak hours. Additionally, the intersection traffic volumes would be high enough to satisfy the peak-hour volume traffic signal warrant during both peak hours. Possible improvements include the installation of a traffic signal and the addition of separate right-turn lanes in the southbound and westbound directions. Signalization of the intersection and implementation of these improvements would improve the intersection level of service conditions to acceptable LOS C during both the AM and PM peak hours.

- Intersection #9, Murray Avenue and Buena Vista Avenue (Santa Clara County), intersection is projected to operate at unacceptable LOS F during both the AM and PM peak hours. Additionally, the intersection traffic volumes would be high enough to satisfy the peak-hour volume traffic signal warrant during both peak hours. Possible improvements include the installation of a traffic signal, which would improve the intersection level of service conditions to acceptable LOS B and C during the AM and PM peak hours, respectively.

- Future intersection #10, U.S. Highway 101 Southbound Ramps and Buena Vista Avenue (Caltrans), is projected to operate at unacceptable LOS F during both the AM and PM peak hours. Additionally, the intersection traffic volumes would be high enough to satisfy the peak-hour volume traffic signal warrant during both peak hours. Possible improvements include the installation of a traffic signal and the addition of a second right-turn lane in the southbound direction. Signalization of the intersection and implementation of the above improvements would improve the intersection level of service conditions to acceptable LOS C and B during the AM and PM peak hours, respectively.

- Future intersection #11, U.S. Highway 101 Northbound Ramps and Buena Vista Avenue (Caltrans), is projected to operate at unacceptable LOS F during both the AM and PM peak hours. Additionally, the intersection traffic volumes would be high enough to satisfy the peak-hour volume traffic signal warrant during both peak hours. Possible improvements include the installation of a traffic signal and the addition of second left-turn lanes in the northbound and eastbound directions. Signalization of the intersection and implementation of these improvements would improve the intersection level of service conditions to acceptable LOS B and C during the AM and PM peak hours, respectively.

- Intersection #15, Wren Avenue and Cohansey Avenue (City of Gilroy) is projected to operate at unacceptable LOS E and F during the AM and PM peak hours, respectively. Additionally, the intersection traffic volumes would be high enough to satisfy the peak-hour volume traffic signal warrant during both peak hours. Possible improvements include the installation of a traffic signal, which would improve the intersection level of service conditions to acceptable LOS C during both the AM and PM peak hours.

- Intersection #17, Monterey Road and Cohansey Avenue (City of Gilroy), is projected to operate at unacceptable LOS F during both the AM and PM peak hours. Additionally, the intersection traffic volumes would be high enough to satisfy the peak-hour volume traffic signal warrant during both peak hours. Possible improvements include the installation of a traffic signal and addition of a separate eastbound left-turn lane. Signalization of the intersection and implementation of these improvements would improve the intersection level of service conditions to acceptable LOS C during both the AM and PM peak hours.

- Intersection #19, Wren Avenue and Farrell Avenue (City of Gilroy), is projected to operate an unacceptable LOS F during both the AM and PM peak hours. Additionally, the intersection traffic volumes would be high enough to satisfy the peak-hour volume traffic signal warrant during both peak hours. Possible improvements include the installation of a traffic signal, which would improve the intersection level of service conditions to acceptable LOS C during both the AM and PM peak hours.

- Intersection #22, Murray Avenue and Las Animas Avenue (City of Gilroy), is projected to operate at unacceptable LOS F during both the AM and PM peak hours. Additionally, the intersection traffic volumes would be high enough to satisfy the peak-hour volume traffic signal warrant during both peak hours. Possible improvements include the installation of a traffic signal, which would improve the intersection level of service conditions to acceptable LOS B during both the AM and PM peak hours.

- Intersection #23, San Ysidro Avenue/No Name Uno and Las Animas Avenue (City of Gilroy), unsignalized intersection is projected to operate at unacceptable LOS F during both the AM and PM peak hours. Additionally, the intersection traffic volumes would be high enough to satisfy the peak-hour volume traffic signal warrant during the PM peak hour. Possible improvements include the installation of a traffic signal, which would improve the intersection level of service conditions to acceptable LOS C during both the AM and PM peak hours.

- Intersection 26, Wren Avenue and Mantelli Drive (City of Gilroy), is projected to operate at unacceptable LOS F during both the AM and PM peak hours. Additionally, the intersection traffic volumes would be high enough to satisfy the peak-hour volume traffic signal warrant during both peak hours. Possible improvements include the installation of a traffic signal and the addition of separate left-turn lanes in the eastbound and westbound directions. Signalization of the intersection and implementation of these improvements would improve the intersection level of service conditions to acceptable LOS C during both the AM and PM peak hours.

- Intersection #27, Church Street and Mantelli Drive (City of Gilroy), is projected to operate at unacceptable LOS E during both the AM and PM peak hours. Additionally, the intersection traffic volumes would be high enough to satisfy the peak-hour volume traffic signal warrant during both peak hours. Possible improvements include the installation of a traffic signal and conversion of the eastbound approach from one left-turn lane and one shared through-and-right turn lane to one shared through and left-turn lane and one right-turn lane. Signalization of the intersection and implementation of these improvements would improve the intersection level of service conditions to acceptable LOS B during both the AM and PM peak hours.

- Intersection #36, Cameron Boulevard/Marcella Avenue and Leavesley Road (Santa Clara County), is projected to operate at an unacceptable LOS F during the PM peak hour. Additionally, the intersection traffic volumes would be high enough to satisfy the peak-hour volume traffic signal warrant during the same peak hour. Possible improvements include the installation of a traffic signal, which would improve the intersection level of service conditions to acceptable LOS B and C during the AM and PM peak hours, respectively.

- Intersection #42, Monterey Street and IOOF Avenue (City of Gilroy), is projected to operate at unacceptable LOS F during both the AM and PM peak hours. Additionally, the intersection traffic volumes would be high enough to satisfy the peak-hour volume traffic signal warrant during both peak hours. Possible improvements include the installation of a traffic signal and the addition of separate left-turn lanes in both the northbound and southbound directions and a separate right-turn lane in the westbound direction. Signalization of the intersection and implementation of these improvements would improve the intersection level of service conditions to acceptable LOS C and B during the AM and PM peak hours, respectively.

- Intersection #47, Church Street and Sixth Street (City of Gilroy), is projected to operate at unacceptable LOS F during the PM peak-hour. Additionally, the intersection traffic volumes would be high enough to satisfy the peak hour volume traffic signal warrant during the same peak hour. Possible improvements include the installation of a traffic signal, which would improve the intersection level of service conditions to acceptable LOS B during both the AM and PM peak hours.

- Intersection #60, Thomas Road and Luchessa Avenue (City of Gilroy), roundabout intersection is projected to operate at unacceptable LOS D during the AM peak hour under Gilroy 2040 General Plan conditions. Possible improvements include the addition of a separate right-turn lane in the northbound direction. With implementation of this improvement, the intersection is projected to operate at acceptable LOS B and A during the AM and PM peak hours, respectively.

- Intersection #72, Church Street and Luchessa Avenue (City of Gilroy), is projected to operate at unacceptable LOS F during both the AM and PM peak hours. Additionally, the intersection traffic volumes would be high enough to satisfy the peak-hour volume traffic signal warrant during both peak hours. Possible improvements include the installation of a traffic signal, which would improve the intersection level of service conditions to acceptable LOS B during both the AM and PM peak hours.

- Intersection #73, Chestnut Street and Luchessa Avenue (City of Gilroy) is projected to operate at unacceptable LOS F during both the AM and PM peak hours. Additionally, the intersection traffic volumes would be high enough to satisfy the peak-hour volume traffic signal warrant during both peak hours. Possible improvements include the installation of a traffic signal with separate left-turn lanes and protected phasing on the Luchessa Avenue approaches. Signalization of the intersection and implementation of these improvements would improve the intersection level of service conditions to acceptable LOS B and C during the AM and PM peak hours, respectively.

- Intersection #76, Kern Avenue and First Street (Caltrans), This unsignalized intersection is projected to operate at unacceptable LOS F during the PM peak-hour. Additionally, the intersection traffic volumes would be high enough to satisfy the

peak-hour volume traffic signal warrant during the same peak-hour. Possible improvements include the installation of a traffic signal, which would improve the intersection level of service conditions to acceptable LOS A during both the AM and PM peak hours.

The following Gilroy 2040 General Plan goals, policies and programs address: 1) maintaining acceptable levels of service for operations of the city roadway network, including intersections, and the city's direction for providing for and promoting performance of the roadway network. In addition to the policies listed below, a multitude of goals, policies, and programs related to land use, transportation demand management, bicycle and pedestrian networks, and transit have potential to reduce vehicle trip number and vehicle miles traveled within the city. This would improve performance of the road network by reducing trip volumes and reducing the need for additional roadway improvements that would otherwise be needed to accommodate traffic volume increases. Many of these latter policies and programs are identified in Section 3.3, Air Quality, and Section 3.7, Greenhouse Gas Emissions, for their positive effect on reducing GHGs. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs for the full policy language.

Goal M 1: Provide for a safe and efficient transportation system that serves all users.

- M 1.13 Transportation Funding.

  Implementation Program 2, Traffic Impact Fee, maintain its traffic impact fees for new development, with the funds used to finance roadway and trail improvements. The fees should be reviewed annually. (Implements policy M 1.13).

Goal M 5: Provide a safe and efficient network of streets for cars and trucks, as well as provide vehicle parking to meet the city's needs.

- M 5.1 Standard Level of Service (LOS), and
- M 5.4 Transportation Performance Metrics.

Implementation Program 6, Transportation Performance Metrics, conduct a study, based on the California Environmental Quality Act (CEQA) guidelines amendments adopted for the implementation of SB 743 (Steinberg, 2013) or other future state legislation, to analyze the potential for implementing vehicle miles traveled (VMT) congestion standards, while also considering the continued use of level of service (LOS) standards to require necessary public improvements from private development. The study should: 1) consider the applicability of using transportation performance metrics and thresholds for measuring transportation system impacts provided in the approved guidelines amendments, as well as for making General Plan consistency determinations and developing transportation financing program, and 2) evaluate the appropriate timing for this action, taking into consideration the need to

better understand the necessary procedures for and likely effects of such a change. Based on this consideration, review, and update if needed, the General Plan LOS standards and policies to be consistent with the approved CEQA Guidelines amendments. (Implements policy M 5.4)

Goal M 5: Provide a safe and efficient network of streets for cars and trucks, as well as provide vehicle parking to meet the city's needs.

- M 5.5 Intersections
- M 5.10 Capital Improvement Plan

Goal M 7: Maintain and increase cooperation between Gilroy and neighboring jurisdictions, regional organizations, and relevant State agencies.

- M 7.1 Regional Communication
- M 7.2 County Coordination

Goal NCR 3: Contribute to improvements in regional air quality and reductions in greenhouse gas emissions.

- NCR 3.7 Transportation Demand Management

Implementation Program 37, Transportation Demand Management, work with VTA and/or 511.org to develop and implement an outreach program targeting employers with fewer than 50 employees to encourage voluntary participation in TDM program activities, including pre-tax deductions for alternative travel mode expenses, transit pass subsidies, and new vanpool development, share best-practices in TDM programs with local businesses to identify options that have been successful at a small scale. Support regional efforts to implement SB 1339 commuter benefit requirements for employers with more than 50 employees. Partner with 511.org and employers to leverage new ride-matching technologies and promote rideshare among employees. (Implements Policy NCR 3.7)

Goal M 1, Policy M 1.13 and its implementation program, and Policy M 5.10 work hand-in-hand to ensure planning for and funding of improvements to the city's roadway network to promote its operation consistent with the city's level of service policy. Policy M 5.1 is the crux policy for reducing impacts on impacted city intersections, traffic conditions are to be maintained at LOS C or better except for areas subject to the city's LOS D exception. Policy M 5.4 and its corresponding implementation program have potential to enhance performance of the roadway network by shifting transportation planning to a focus on VMT rather than level of service metrics. This would place more emphasis on reducing vehicle trip numbers and distances such that need for expanded roadway and intersection capacity could be reduced. Policy M 5.5 directly addresses the safety and efficiency of performance of intersections for all travel modes through signal phasing and potential use of traffic control

measures. Goal 7 and accompanying policies M 7.1 and M 7.2 address the need for coordination with regional and county agencies to facilitate transportation planning and address impacts of development within the city on the regional transportation network.

Policy M 1.7 and Policy NCR 3.7 have direct potential to reduce vehicle trips. Their effective implementation could result in a diminished need to expand roadway and intersection capacity and improve projected LOS conditions in limited locations. Trip reductions of up to 45 percent are feasible in exceptional circumstances with implementation of aggressive transportation demand management programs that include such measures as private bus services and free shuttle services to transit stations. Expansion of existing bus and train services could help reduce vehicle trips that are distributed onto U.S. Highway 101. The city does not control these services; therefore, the city cannot mandate that services be expanded for this purpose. Significant vehicle trip reductions through transportation demand management approaches are generally more difficult to achieve for projects, such as a general plan update, where trip origins and destinations are distributed over a large area (in contrast to dense residential or employment centers). Therefore, while transportation demand management programs can be effective, the degree of their effectiveness in the Gilroy 2040 General Plan context and their potential to improve operational performance at specific intersections is considered to be speculative.

The traffic report notes that the ability to implement the improvements will in part be a function of whether or not the improvements are physically or jurisdictionally feasible. For physically feasible improvements, the ability to implement them would then be a function of whether funding exists or could exist to make the improvements. The functional feasibility and funding issues for facilities under control of the city and under the control of Caltrans/VTA/county are discussed below.

The scope of the traffic report did not include analysis of whether the recommended intersection improvements are physically feasible. Improvements could be infeasible for several reasons. Representative causes include, but may not be limited to: inability to widen or extend roadways due to land availability constraints, substantial impairment of the function/use of existing or planned alternative transportation facilities, unavoidable environmental impacts, cost, and/or lack of funding mechanisms to collect fees that could be used to construct improvements. In cases where the recommended improvements for any intersection are ultimately determined to be infeasible, the intersection would operate at a substandard level. Because improvement feasibility has not yet been evaluated, it is uncertain if the required improvements can be made. Further, many of the intersections are not within the city's jurisdiction and the responsibility for determining improvement feasibility would rest with other agencies over which the city has no control.

At city intersections where recommended improvements are not feasible, the city could require development projects contributing to the deterioration of intersection operating conditions to implement alternative transportation system improvements that make

operations of the overall transportation system more efficient and improve the city's overall multimodal transportation system. Multimodal transportation system improvements could be required in-lieu of intersection improvements to improve facility improvements. Examples of such improvements could include: signal timing changes, signal synchronization, adaptive traffic signal systems, bicycle, pedestrian and transit infrastructure improvements, and streetscape projects to enhance the pedestrian environment.

Policy M 1.13, implementation program M 2, and Policy M 5.10 are critical to the ability of the city to fund improvements to needed at deficient intersections. It is assumed that as part of the implementation program for the Gilroy 2040 General Plan, the city would, as suggested in implementation program M 2, review its current fee program and conduct a new traffic fee nexus study. The new nexus study would be based on analysis of the feasibility of and costs for improvements at impacted city intersections and be used as a basis to update the city's traffic fee to ensure that sufficient fees are generated from new development to fund the improvements. Improvements would then be programmed in the CIP as noted in Policy 5.10.

At this time, there are no Caltrans, VTA, or county programs in place that are designed to alleviate cumulative impacts on the respective intersections to which new development within the city could contribute fair share funds. Further, there is no assurance that any of these agencies will adopt such programs. The city's traffic fee program does not address funding for improvements to transportation facilities that are not within the city's jurisdiction. Per Policy 7.1 and Policy 7.2, the city would also continue to collaborate with VTA and Caltrans to identify regional and/or state funding for traffic system improvements needed to regional facilities to which development within the city contributes.

Roadway Operations

The city is required to conform to VTA requirements for evaluating the transportation impacts of land use decisions on the designated CMP roadway system.

Freeway Segment Analysis

Operations of mainline U.S. Highway 101 are under Caltrans jurisdiction. The traffic report includes analysis of impacts of Gilroy 2040 General Plan buildout on highway segments within the study area. The performance standards for freeway segments is LOS E as described on page 39 of the traffic report and summarized in Table 10. In addition to traffic volume projections, speed projections for the study freeway segments were obtained from the Gilroy model to calculate level of service changes. The level of service analysis evaluates operational conditions on 16 U.S. Highway 101 freeway segments under existing and proposed conditions. The results of the freeway segment analysis under existing and 2040 General Plan conditions are listed in Table 14 of the traffic report and are summarized below.

Existing Conditions. The analysis found that under existing conditions five Caltrans-controlled directional freeway segments currently operate at LOS F during a peak hour. All other freeway segments analyzed currently operate at an acceptable LOS E or better during both the AM and PM peak hours. The five affected segments operating at LOS F under existing conditions are summarized as follows:

- Segment #7, U.S. Highway 101 northbound from San Martin Avenue to Tennant Avenue (AM peak-hour),
- Segment #8, U.S. Highway 101, southbound from Tennant Avenue to East Dunne Avenue (AM peak-hour),
- Segment #9, U.S. Highway 101, southbound from East Dunne Avenue to Tennant Avenue (PM peak-hour),
- Segment #10, U.S. Highway 101, southbound from Tennant Avenue to San Martin Avenue (PM peak-hour), and
- Segment #16, U.S. Highway 101, southbound from Monterey Road to SR 25 (PM peak-hour).

Gilroy 2040 General Plan Conditions. The results of the analysis show that the following directional freeway segments analyzed are projected to operate at an unacceptable LOS F during one of the peak hours under Gilroy 2040 General Plan conditions. The following directional freeway segments are projected to be deficient under Gilroy 2040 General Plan conditions:

- Segment #7, U.S Highway 101, northbound from San Martin Avenue to Tennant Avenue (AM peak-hour),
- Segment #8, U.S. Highway 101, northbound from Tennant Avenue to East Dunne Avenue (AM peak-hour),
- Segment #9, U.S. Highway 101, southbound from East Dunne Avenue to Tennant Avenue (PM peak-hour),
- Segment #10, U.S. Highway 101, southbound from Tennant Avenue to San Martin Avenue (PM peak-hour), and
- Segment #12, U.S. Highway 101, southbound from Masten Avenue to Buena Vista Avenue (PM peak-hour).

All other freeway segments, including Segment #11 (existing deficiency), would operate at LOS E or better under Gilroy 2040 General Plan conditions. The results of the roadway segment analysis indicate that four segments would operate at LOS F under existing and proposed conditions and an additional segment (#12) would operate at LOS F. Operations

on these five segments are projected to be inconsistent with Gilroy 2040 General Plan general plan performance standards. The traffic report includes two general approaches for addressing U.S. Highway 101 segment level of service impacts. The first is to increase capacity on the deficient highway segments. The second is to reduce traffic volumes on the highway through various potential tools such as expanding and promoting use of alternative non-automobile modes of travel such as bus and rail services, reducing in- and out-commutes through improving the city's job-to-housing balance, and implementing strong transportation demand management programs.

The Gilroy 2040 General Plan does not include goals, policies or programs that directly address the performance of or impacts on transportation facilities that are not or would not be under the city's jurisdiction with buildout of the local 2040 traffic network. However, Policy M 7.1, Regional Communication, and Policy M 7.2 County Coordination, required communications between the city and State and regional agencies that plan for, manage, and/or have jurisdiction over facilities that are not within the city's control including Caltrans, VTA, and the county. Policy M 7.1 identifies the city's need to maintain communication with state and regional agencies to ensure cooperation in the development of transportation systems and the implementation of state and regional transportation plans. Policy M 7.2 specifies the city's need to work with the county on the development of transportation facilities within the county's jurisdiction.

While policies M 7.1 and 7.2 promote coordination, they do not function to ensure that the contribution of new traffic from future development in the city to operational deficiencies on the noted U.S. Highway 101 segments will be addressed. A multitude of goals, policies, and programs related to land use, transportation demand management, bicycle and pedestrian networks, and transit have potential to reduce the number of vehicle trips from new development in the city that would be distributed onto the impacted highway segments. Many of these policies and programs are identified in Section 3.3, Air Quality, and Section 3.7, Greenhouse Gas Emissions, for their positive effect on reducing VMT and vehicle trip numbers that result in reduced GHG emissions. Implementation of these policies could reduce impacts on the highway segments.

Addressing deficiencies on the affected U.S. Highway 101 segments could be possible if one or more programs designed to address regional operational deficiencies were in effect and developers of future projects within Gilroy were required to implement or fund a fair share of the mitigation requirements. However, at this time, there are no Caltrans or VTA programs in place that are designed to alleviate cumulative traffic volumes on the subject U.S. Highway 101 segments to which the city could contribute fair share funds. Further, there is no assurance that either of these agencies will adopt such programs. The city's traffic fee program does not address funding for improvements to transportation facilities that are not within the city's jurisdiction. It is uncertain if or when Caltrans or VTA may develop and adopt improvement programs in which the city may choose to participate. Therefore, there is no assurance that the operational deficiencies will be addressed.

Freeway Ramp Capacity

Operational levels of service for six existing interchanges and the future U.S. Highway 101 at Buena Vista interchange are analyzed in the traffic report. The analysis is based on calculated ramp capacity (volume-to-capacity (V/C) ratios) at the study freeway ramps. Evaluation of the ramps' operating levels is based on Caltrans level of service standards (LOS C or better). The correlation between V/C ratio and level of service for freeway ramps is shown in Table 11 of the traffic report. Characteristics of each interchange are described in the traffic report on pages 67-70 and a summary of operations under existing and Gilroy 2040 General Plan conditions is included in Table 15 of the traffic report.

Existing Conditions. Regional access to the Gilroy area is provided directly by four interchanges with U.S. Highway 101. These include: U.S. Highway 101 at Monterey Street, U.S. Highway 101 at Tenth Street/Pacheco Pass Highway (State Route 152), U.S. Highway 101 at Leavesley Road, and U.S. Highway 101 at Masten Avenue. Additionally, the U.S. Highway 101 at San Martin Avenue interchange to the north and the U.S. Highway 101 at State Route 25 interchange to the south of the city can be utilized to access the city. All ramps currently operate at acceptable levels of service based on Caltrans standards.

Gilroy 2040 General Plan Conditions. Based on ramp capacities and traffic volume projections, the level of service analysis projects that the following four U.S. Highway 101 interchanges would not meet Caltrans performance standards: during a peak hour:

- Northbound On-Ramp at State Route 25/Santa Teresa Boulevard (LOS F – AM peak hour);
- Northbound On-Ramp at Monterey Street (LOS F – AM peak hour);
- Northbound Diagonal On-Ramp at Tenth Street (LOS D – AM peak hour); and
- Northbound On-Ramp at Buena Vista Avenue (LOS F – AM peak hour).

All other study freeway ramps are projected to operate at acceptable levels.

Similar to the approach for U.S. Highway 101 segments, the traffic report includes two general approaches for addressing operational level of service deficiencies. The first is to increase capacity on the deficient ramps. The second is to reduce traffic volumes on the highway through various potential tools such as expanding and promoting use of alternative non-automobile modes of travel such as bus and rail services, reducing in- and out-commutes through improving the city's job-to-housing balance, and implementing strong transportation demand management programs.

The potential for Gilroy 2040 General Plan policies and programs to address operational deficiencies on the six U.S. Highway 101 ramps is similar to that identified for the U.S. Highway 101 segments discussed above. The Gilroy 2040 General Plan does not include goals, policies or programs that directly address the performance of or impacts on U.S.

Highway 101 ramps. However, Policy M 7.1, Regional Communication, identifies the city's need to maintain communication with agencies such as Caltrans and VTA to ensure cooperation in the development of transportation systems and the implementation of state and regional transportation plans.

Implementation of Policy M 7.1 would not assure that the contribution of new traffic from future development in the city to the noted U.S. Highway 101 ramps will be addressed. A multitude of goals, policies, and programs related to land use, transportation demand management, bicycle and pedestrian networks, and transit have potential to reduce the number of vehicle trips from new development in the city that would be distributed onto the affected ramps. Many of these policies and programs are identified in Section 3.3, Air Quality, and Section 3.7, Greenhouse Gas Emissions, for their positive effect on reducing vehicle trip numbers. Implementation of these policies could reduce traffic volumes on the highway ramps, but lacking defensible, quantified evidence as to the level of trip reduction that would be achieved, it would be speculative to conclude that operational performance on the affected ramps would be improved to the extent that Caltrans performance standards would be met.

Performance standards on U.S. Highway 101 ramps could be met if one or more programs designed to mitigate the regional effects of development on traffic volumes and developers of future projects within Gilroy were required to implement or fund a fair share of the improvement costs. However, there are no existing Caltrans or VTA programs in place designed to alleviate the operational deficiencies on the subject ramps to which the city could contribute fair share funds. Further, there is no assurance that any of these agencies will adopt such programs. The city's traffic fee program does not address funding for improvements to transportation facilities that are not within the city's jurisdiction

3.18 WATER SERVICE

This section addresses the project's potential environmental impacts associated with water service facilities and infrastructure. Unless otherwise noted, the information contained within this section is largely based on the *Gilroy 2040 General Plan Background Report* (Mintier Harnish 2014). This section also draws on information from the city's *2015 Urban Water Management Plan* (AKEL Engineering Group), Water System Master Plan (Carollo Engineers 2004c), and the *2015 South County Recycled Water Master Plan Update* (Santa Clara Valley Water District 2016). The background report is available on the city's website at http://www.gilroy2040.com/ documents/.

Potential impacts to the water supply and availability are discussed in Section 3.10 Groundwater. Potential impacts to water quality from storm water, and flooding impacts are discussed in Section 3.9, Storm Water and Flooding.

No comments regarding water service facilities or supply issues were received in response to the NOP.

Environmental Setting

Water Supply Facilities

The City of Gilroy provides potable water service to residential and non-residential customers within the city service area. Groundwater is the source of water supply. The city's municipal water system extracts groundwater from underground aquifers within the Llagas Subbasin. The city's water system includes nine groundwater wells located throughout the city that extract water from the underground aquifer and pump into a network of distribution pipelines. The pipelines convey water to customers, storage reservoirs and booster stations, which elevate water to higher elevation pressure zones that service customers.

The city's water system facilities include 10 water storage reservoirs with a combined total capacity of approximately 14 million gallons, six active booster stations, and over 134 miles of pressurized pipes. The wells have a total pumping capacity of approximately 18 million gallons per day. The city provides service to three separate pressure zones, defined by the elevation ranges they serve. Zone 1 has a pressure zone hydraulic grade line elevation of 374 feet and serves most of the city. Zones 2 and 3 serve higher elevation in the hills at the western edge of the city (Mintier Harnish and EMC Planning Group 2014, Carollo 2004c).

City wells and pump capacity are shown in Table 9-1 of the background report. The operational capacity of each well, though generally less than its rated design capacity, is deemed a more practical measure of the actual supply capacity. The city routinely tests the wells and the water quality of the active wells is generally considered to be good. The municipal water system receives only light chlorination for water quality purposes. With the exception of city municipal Well 1 and 8A, all well infrastructure includes emergency generators to maintain minimum pumping capacity. Additional information on well power, design head, ground elevation, and current emergency capacity for municipal wells with and without emergency generators is found in Table 9-1 of the background report. The city's existing total supply capacity is estimated at 13,040 gallons per minute (gpm), while the city's firm supply capacity is estimated at 11,235 gpm. According to the 2004 Water System Master Plan, the city's firm capacity is defined as the total supply capacity less the city's standby requirement (1,805 gpm). The standby production capacity is required for system reliability and under normal operating conditions, it is possible that one or two of the city's wells can be placed out of service due to equipment malfunction, water quality concerns, or other operational emergencies during maximum day demand conditions (Carollo Engineers 2004c).

Existing Storage Reservoirs

Storage reservoirs are incorporated in the water system to provide water supply for assisting operations during periods of high demand, for meeting fire flow requirements, and for other emergencies, as defined in the city's planning and design criteria. The city currently operates and maintains 10 storage reservoirs, with a combined total capacity of approximately 14 million gallons. The capacity of the city's existing storage reservoirs is

summarized in Table 9-3 of the background report, which also includes additional information on pressure zone and static hydraulic grade line data for each of the storage reservoirs.

Booster Stations

The city's water system serves lands that vary in elevation from about 140 feet above sea level in the valley floor to over 540 feet in the south and west foothills. In order to maintain appropriate operating pressures within the service area, the Water System Master Plan identifies three pressure zones to form the basis for operational infrastructure design criteria. The desired operation range of each pressure zone ranges between 45 and 100 pounds per square inch (psi).

The majority of the city's water distribution system is located in the relatively flat valley floor, which is comprised of Pressure Zone 1. This pressure zone also contains the city's nine active municipal groundwater supply wells. Water is lifted from Pressure Zone 1 and the lower zones via booster stations to the south and to the west to service Pressure Zone 2 and Pressure Zone 3. Pressure reducing valves, constructed at pressure zone interconnections, allow the conveyance of water from the higher foothill zones to lower pressure zones. The capacity of the city's booster stations is summarized in Table 9-4 of the background report, which also provides additional information on the status and elevation of each booster station and the static hydraulic grade line data for each serviced pressure zone. The boundaries of each pressure zone are shown in the 2004 Water System Master Plan Figure 4.2 and Figure 4.3 (Carollo Engineers, 2004c).

Recycled Water Distribution System

2015 South County Recycled Water Master Plan Update (2016). In order to facilitate the expansion of recycled water use in south Santa Clara County, Valley Water, and South County Regional Wastewater Authority partnered to develop this update to the 2004 master plan to meet long-term water supply and wastewater needs in south Santa Clara County, specifically in and near the cities of Gilroy and Morgan Hill. The existing recycled water system currently supplies 11 users in Gilroy and the surrounding area with recycled water for applications that include landscape irrigation, agricultural, and industrial. During the 2014 calendar year, 1,995 acre-feet of recycled water were used, which corresponds to an average daily flow of 1.8 million gallons per day. The existing recycled water distribution system consists of approximately 14.6 miles of pipeline, a 4 mgd booster pump station, a 1.5 mg storage tank, and is supported by a 3 mg reservoir, 3.5 mgd pump station, and 3 mgd pump station at the waste water treatment plant.

Regulatory Setting

City of Gilroy

Water System Master Plan (2004). The Water System Master Plan design standards are based on city-wide water demand forecasts of approximately 29.5 million gallons per day in

2020, and 33.0 million gallons per day in 2030 (Carollo 2004c). The Water System Master Plan (Figure 5.2) indicates that the city's future water supply needs under the city's 2020 general plan buildout conditions can be met with the construction of eight additional wells. The 2004 Water System Master Plan assumed a population of 82,136 at buildout of the general plan in affect at that time.

Urban Water Management Plan (2015). The Urban Water Management Plan addresses those aspects of the Urban Water Management Plan Act which are under the control of the city, specifically water supply and water use. While preparing the 2015 Urban Water Management Plan, the city coordinated its efforts with relevant agencies including Valley Water and the County of Santa Clara. The 2015 Urban Water Management Plan, which was based upon the 2020 general plan adopted in 2002, accounts for state water use reduction goals, and forecasts the 2040 city-wide demand to be approximately 12.6 million gallons per day, which forecast total population in 2040 to be 95,105. Water use projections under the buildout of the existing general plan, as modified by the 2016 Urban Growth Boundary Initiative, would be less, as the Urban Growth Boundary was reduced in size.

Thresholds of Significance

The City of Gilroy CEQA thresholds of significance state that a project may have a significant effect on the environment if it would:

- Require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
    - Potentially significant if inconsistent with city's Water System Master Plan.

Analysis, Impacts, and Mitigation

IMPACT	Increase in Water Demand Will Not Require New or Expanded Water Facilities	No Impact

Implementation of the Gilroy 2040 General Plan may require new or expanded water facilities to pump and distribute water to new and existing development within the Urban Growth Boundary, but not beyond those identified in the 2004 Water System Master Plan, as the Urban Growth Boundary was significantly reduced by the 2016 Urban Growth Boundary Initiative. Additional water infrastructure must be constructed to pump and distribute water to new development and construction of new facilities has potential to create site-specific adverse environmental effects.

Based upon a 2040 projected population of approximately 75,684, with a per capita coefficient of 133 gallons per capita per day, the projected demand in 2040 would be approximately 10.1 million gallons per day, significantly less than what was planned for in

the 2004 Water System Master Plan. Therefore, any increase in water demand resulting from buildout of the 2040 general plan, would be less than required in the Water System Master Plan.

Conclusion

Implementation of the Gilroy 2040 General Plan will not require new or expanded water facilities beyond those identified in the 2004 Water System Master Plan as a result of the 2016 Urban Growth Boundary Initiative. Therefore, there would be no environmental impacts associated with the provision of water service.

3.19 WASTEWATER SERVICE

Unless otherwise noted, the information contained within this section is largely based on the *Gilroy 2040 General Plan Background Report* (Mintier Harnish 2014), as well as from the *2015 South County Recycled Water Master Plan Update* (South County Regional Wastewater Authority 2016) and the *City of Gilroy Sewer System Master Plan* (Carollo 2004). The background report is available on the city's website at http://www.gilroy2040.com/documents/.

In response to the 2015 NOP, Save Open Space – Gilroy commented on the wastewater treatment plant and Morgan Hill's growth. This comment was made prior to the 2016 Urban Growth Initiative.

Environmental Setting

City Infrastructure

The City of Gilroy provides sewer collection services to residential, commercial, industrial, and institutional customers, and includes approximately 110 miles of pipelines ranging in size between six inches and 33 inches in diameter. The trunk sewers are comprised of branched pipelines, generally 12-inches in diameter and larger, and convey the collected wastewater flows to the wastewater treatment plant.

Collected sewer flows are generally conveyed south and to the east to the South County Regional Wastewater Treatment Plant, which is owned and operated by the South County Regional Wastewater Authority (SCRWA). The wastewater authority is a joint powers authority established to manage the treatment of wastewater for the cities of Gilroy and Morgan Hill. Gilroy sewer flows are conveyed through three major trunk sewers, one of which also conveys flows from Morgan Hill.

The *Gilroy Sewer System Master Plan* (2004) divides the sanitary sewer collection system into three major trunks and 13 smaller subtrunks. These trunks and subtrunks are summarized in the background report Table 9-5, Existing Sewer Trunks. Each trunk and subtrunk sewer is given a unique name, which is associated with the street alignment of the sewer. The

city's 2004 and modeled sewer system network is shown in the *Gilroy Sewer System Master Plan*, Figure ES.4 and Figure ES.5 (Carollo Engineers 2004a).

Joint Morgan Hill-Gilroy Trunk (Morgan Hill Trunk)

The Morgan Hill Trunk begins at the intersection of Monterey Avenue and California Avenue in the City of Morgan Hill and continues south to the City of Gilroy. The Morgan Hill Trunk is maintained by a Joint Exercise of Powers Agreement between the City of Gilroy and the City of Morgan Hill. The total length of the Morgan Hill Trunk is approximately 5.8 miles. The Morgan Hill Trunk conveys wastewater from Morgan Hill to the wastewater treatment plant in southeast Gilroy. The line passes through the Neighborhood District North land use designation in a combination of 27-inch to 30-inch pipes and continues southward on Wren Avenue to a merger with the Mantelli Sub-trunk at Mantelli Drive. The Morgan Hill Trunk also collects wastewater flows from within Gilroy. Wastewater flow is then conveyed in a 33-inch main east and south to the wastewater treatment plant. Sewer system modeling conducted for the sewer master plan showed that during wet weather flow conditions, the Morgan Hill Trunk becomes deficient through the city (Carollo Engineers 2004b).

The City of Morgan Hill recently finished constructing a 30-inch sanitary sewer relief line in Monterey Road ending south of California Avenue within its city limit and funded by the city. The City of Morgan Hill is in the process of extending this relief line to the City of Gilroy to tie into the 36-inch line northeast of the interchange of State Route 152 and Highway 101. The City of Gilroy recently installed a 42-inch line extending to the wastewater treatment plant. The cost of the joint trunk was shared by the City of Morgan Hill and included a replacement 24-inch pipeline. (Saeid Vaziry, email message, February 20, 2020).

Wastewater Treatment

The wastewater treatment plant was constructed in 1990. The SCRWA joint powers cost distribution agreement attributes (designates) 41.9 percent of the influent flow capacity to Morgan Hill and the remaining 58.1 percent to Gilroy, which corresponds to a Gilroy average dry weather flow of approximately 4.9 million gallons per day (mgd). The wastewater treatment plant consists of secondary and tertiary treatment systems. The secondary facilities have an average dry weather flow of 8.5 mgd. The tertiary treatment system has a capacity of 9.0 mgd and provides recycled water to area users. SCRWA will provide future treatment capacity to support growth as planned in the Morgan Hill and Gilroy general plans.

Recycled Water System

In partnership with Valley Water, SCRWA also operates a recycled water facility constructed in 1977, which is co-located at the treatment plant site. SCRWA meets the steadily increasing demand for recycled water to irrigate local parks, golf courses, sports fields complex, landscape medians, agricultural and industrial uses. The wastewater

treatment plant's average dry weather flow is six million gallons per day (approximately 18.4-acre feet per day) and the plant includes a three-million-gallon treated water storage reservoir that can provide peaking capacity for a total of nine mgd. The estimated annual recycled water demand is 2,241-acre feet per year (approximately six acre feet per day), and is distributed among 11 users. While the wastewater treatment facility is operated by SCRWA, Valley Water owns and operates the recycled water transmission system that delivers recycled wastewater to municipal, commercial, and industrial customers within the City of Gilroy. The recycled water system consists of over eight miles of 12-inch and 14-inch distribution pipeline spanning two pressure zones.

Regulatory Setting

State

Regional Water Quality Control Board. The State Water Resources Control Board and the nine Regional Water Quality Control Boards are responsible for assuring implementation and compliance with the provisions of the Clean Water Act and the Porter-Cologne Water Quality Control Act. The state board and regional boards are designated as lead agencies in implementing the Clean Water Act and Porter-Cologne Water Quality Control Act. The City of Gilroy is within the jurisdiction of the Central Coast Regional Water Quality Control Board.

The regional board requires all wastewater collection and disposal providers to prepare both a long-term wastewater management plan according to wastewater requirements, and a sewer system management plan according to the Statewide General Order Waste Discharge Requirements for Sanitary Sewer Systems (Order No. R3-2017-0028), which was adopted in 2017 and requires wastewater collection and service providers to report all sanitary sewer overflows and management plans for all sanitary sewer systems.

Title 22 of California Code of Regulations. Title 22 regulates the use of reclaimed wastewater. In most cases only disinfected tertiary water may be used on food crops where the recycled water would come into contact with the edible portion of the crop. Disinfected secondary treatment may be used for food crops where the edible portion is produced above ground and will not come into contact with the secondary effluent. Lesser levels of treatment are required for other types of crops, such as orchards, vineyards, and fiber crops. Standards are also prescribed for the use of treated wastewater for irrigation of parks, playgrounds, and landscaping.

City of Gilroy

Sewer System Master Plan (2004). The sewer master plan provides a blueprint for development and expansion of the city's wastewater infrastructure, which collects wastewater and delivers it to the wastewater treatment plant, based on the distribution of Gilroy 2020 General Plan land uses. The sewer master plan projected the city's wastewater treatment and sanitary sewer system infrastructure needs based on an anticipated population of 82,136 persons in the year 2040 (Carollo Engineers 2004b Table ES.1).

Thresholds of Significance

The City of Gilroy CEQA thresholds of significance state that a project may have a significant effect on the environment if it would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or
- Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Analysis, Impacts, and Mitigation

IMPACT	Wastewater Treatment Requirements Would not be Exceeded. Construction of New or Expanded Wastewater Treatment Facilities Would be Required	Less than Significant

Based on the expected growth to occur with implementation of the Gilroy 2040 General Plan, construction of additional wastewater treatment infrastructure will be required to provide adequate wastewater treatment capacity. The 2004 sewer master plan projected the need for 7.3 mgd of treatment capacity for a population of about 76,000 (sewer master plan Table 3.3). The projected 2040 population of Gilroy is 75,684. Gilroy's share of the current treatment plant capacity is 4.9 mgd. Future planned expansion will increase this to 6.39 mgd. Therefore, future development consistent with the Gilroy 2040 General Plan land use designations could result in an increase in the demand for wastewater services that exceeds the capacity of the existing and planned sanitary sewer system and treatment plant, and result in the need for new infrastructure, the construction of which could result in significant environmental impacts.

Gilroy 2040 General Plan

The Gilroy 2040 General Plan contains a range of goals, policies, and programs whose implementation will serve to avoid or reduce potential impacts to a less than significant level. Refer to Appendix B, Gilroy 2040 General Plan Policies, for the full policy language.

Goal LU 1: Protect and enhance Gilroy's quality of life and unique identity while continuing to grow and change.

- LU 1.1 Pattern of Development
- LU 1.2 Residential Growth

- LU 1.3 Phased Commercial Growth
- LU 1.10 Urban Service Area Amendments
- LU 1.11 Contiguous Development

Policy LU 1.1 calls for an orderly, contiguous pattern of development that prioritizes infill development, phases new development, encourages compactness and efficiency, preserves surrounding open space and agricultural resources, and avoids land use incompatibilities. Policy LU 1.2 encourages new residential development to locate within the existing Urban Service Area prior to considering expansion of the Urban Service Area. Policy LU 1.3 encourages new commercial and industrial development to locate within the Urban Service Area, but allows consideration of new commercial and industrial development outside the Urban Service Area when sufficient land area is not available within the Urban Service Area and following approval of a General Plan Amendment (if necessary) and a successful Urban Service Area amendment. Policy LU 1.10 allows the acceptance and evaluation of applications for inclusion in the Urban Service Area annually in light of General Plan policies promoting infill development and efficient and cost-effective provision of urban services. Policy LU 1.11 discourages development that is not contiguous with existing urban development.

Goal PFS 1: Provide the highest level of public facilities and services feasible, consistent with the city's fiscal resources, to meet the needs of current and future residents and businesses.

- PFS 1.1 Public Facilities and Development
- PFS 1.2 Fiscal Implications of Land Use Decisions
- PFS 1.3 Capital Improvement Budget
- PFS 1.4 Priority of Infrastructure Rehabilitation or Replacement
- PFS 1.10 Facility and Service Funding
- PFS 1.11 Development Impact Fees

Policy PFS 1.1 requires development of a public facilities system that supports and encourages infill development and a contiguous pattern of land use and discourages premature development or over-development in the absence of necessary municipal improvements. It minimizes adverse impacts on the environment and adverse fiscal, economic, and social impacts on the community, and protects the health, safety, and general welfare of Gilroy's residents by providing a level of service consistent with the needs of individual neighborhoods. Policy PFS 1.2 calls for the careful consideration of the fiscal implications of land use decisions that would result in service expansions to avoid significant negative fiscal impacts unless necessary to achieve other critical city objectives.

Policy PFS 1.3 maintains the Capital Improvement Budget (CIB) to ensure the implementation of the General Plan and the adequate and timely provision of public facility and municipal utility improvements. Policy PFS 1.4 gives high priority in capital improvement programming to funding rehabilitation or replacement of critical infrastructure that has reached the end of its useful life or has capacity constraints. Policy PFS 1.10 requires that new development bears the cost for incremental public facilities and services costs it generates. Policy PFS 1.11 requires applicants for new development to pay Development Impact Fees for traffic circulation, water, wastewater, storm water and public facilities to offset the costs of expanding these as detailed by the impact fee nexus study.

Goal PFS 2: Operate public facilities and services in a sustainable manner that uses public revenues and resources efficiently.

- PFS 2.2 Efficient, Cost-Effective Operations
- PFS 2.3 Sustainable Practices
- PFS 2.7 Technology Use

Policy PFS 2.2 requires continued efficiency in all city operations and activities and use revenues in a cost-effective manner. Policy PFS 2.3 calls for maximizing recycling programs, conservation, and environmental practices that, among other things, will reduce water consumption and subsequent wastewater generation.

Goal PFS 4: Maintain the city's wastewater collection, treatment, and disposal system to meet the needs of existing and future development anticipated in the Gilroy 2040 General Plan.

- PFS 4.1 Wastewater System Master Plan
- PFS 4.2 Wastewater Treatment and Disposal Capacities
- PFS 4.3 Timing and Location of Development
- PFS 4.4 Effective Wastewater Treatment
- PFS 4.5 Lift Stations and Siphons
- PFS 4.6 Recycled Water
- PFS 4.7 Wastewater Treatment
- PFS 4.8 Water Conservation

Policies PFS 4.1 and 4.2 state that the city will provide ongoing maintenance of the wastewater collection and treatment system to accommodate wastewater generated through buildout conditions consistent with the city's sewer master plan, as it is periodically amended or updated. Policy PFS 4.3 requires that adequate wastewater treatment capacity is funded and in place prior to approval of new development. Policies PFS 4.4 - PFS 4.7

require continued provision of effective wastewater treatment consistent with state and federal standards, coordination with SCVWD for the production of recycled water, and maintenance of adequate wastewater treatment capacity and infrastructure to keep pace with increased demand generated by implementation of the Gilroy 2040 General Plan. Policy PFS 4.8 encourages water conservation and other programs, which will reduce demand for wastewater treatment capacity. Implementation of this policy in conjunction with Policy NCR 4.5 and in addition to mandatory water conservation policies described in Section 3.10, Groundwater, and 3.18, Water Service, will reduce wastewater generation rates and the demand for treatment.

Conclusion

Implementation of the above-referenced policies would reduce the impact of buildout of the Gilroy 2040 General Plan land use designations; but would not avoid the need for new or expanded wastewater collection and treatment facilities, the construction of which could cause significant environmental effects. Project-specific environmental impacts of future construction of new or modified sewer conveyance and wastewater treatment facilities to support the city's growth anticipated under the Gilroy 2040 General Plan and maintain service level for the City of Morgan Hill cannot be determined because the locations and site-specific designs of future facilities are not yet known.

However, it can be expected that construction and operation of new sanitary sewer and wastewater treatment facilities would have similar impacts as would construction and operation of other types of new development within Gilroy. The site-specific environmental impacts of required new facilities would be analyzed once specific development projects for these facilities are proposed. Consequently, Gilroy 2040 General Plan policies and mitigation measures referenced in other sections of this EIR that serve to avoid or reduce potential impacts from new development would also avoid or reduce impacts of expanded or new sewer system and wastewater treatment facilities. Therefore, impacts would be less than significant and no additional mitigation is required.

Implementation of the Gilroy 2040 General Plan will require new or expanded wastewater facilities, but not beyond those identified in the *City of Gilroy Sewer System Master Plan* as a result of the 2016 Urban Growth Boundary Initiative. Therefore, the environmental impacts associated with the provision of wastewater service would be less than significant and no mitigation would be required.

3.20 SOLID WASTE FACILITIES

The information contained within this section is largely based on the *Gilroy 2040 General Plan Background Report* (Mintier Harnish 2014), and information provided by solid waste service providers. The background report is available for review on the city's website at http://www.gilroy2040.com/documents/. No comments on the NOP were received that addressed solid waste.

Environmental Setting

The City of Gilroy contracts with Recology South Valley (Recology) for collection of solid waste and recyclables. The exclusive franchise agreement between the City of Gilroy and Recology became effective in 1997 and was extended through 2022 (recyclestuff.org). Recology provides Gilroy residents with weekly collection of a variety of recyclables including newspaper, mixed paper, glass jars and bottles, aluminum and steel containers, plastic containers, and cardboard. Residential yard trimmings are also collected on a weekly basis along with common household batteries and used motor oil and oil filters, so long as they are properly contained. Since 2005, Gilroy residents have been able to put food scraps, along with grass and clippings, in their yard waste cart. Recology also collects a wide variety of bulky household items including appliances, furniture, and mattresses. Residents must contact Recology in order to receive a price estimate and to schedule for item collection. From January to April, residents are allowed to recycle large items such as two cubic yards of unpainted or untreated wood, metal appliances, or scrap metal. In April, the Annual Spring Clean Up program allows residents to dispose of seven additional thirty-two-gallon trash bags or seven thirty-two-gallon cans of garbage for curbside collection.

The City of Gilroy participates in the Santa Clara County Household Hazardous Waste disposal program. All residents in the city can set up an appointment with the county to dispose of household hazardous waste at no cost. Household hazardous wastes include items such as paints, adhesives, and pesticides.

Solid waste from the City of Gilroy is dropped at the San Martin Transfer Station. Recyclables such as paper, cardboard, cans, bottles, and metal are sent to a Material Recovery Facility, where they are sorted, baled, and sold to be recycled and made into new products. Recycling diverts much of Gilroy's solid waste from landfills to other uses. Clean yard waste is transported to South Valley Organics, a compost facility located at Pacheco Pass Landfill, which processes the waste into compost.

Gilroy Solid Waste Disposal Targets

Like all cities in California, the City of Gilroy must meet state waste disposal reduction requirements. The city has consistently met the state's targeted per capita and employment daily waste disposal rates. According to California Department of Resources Recycling and Recovery (CalRecycle), the city's average disposal rates are 4.5 pounds per day per capita and 12.9 pounds per day per employee, which are below the statewide disposal target rates. (CalRecycle 2020a)

Landfill Capacity

According to the Jurisdiction Diversion/Disposal Rate Detail summary prepared by CalRecycle (2020a), the City of Gilroy generated approximately 45,850 tons of solid waste that was disposed of in landfills. Solid waste generated by Gilroy is taken to the John Smith Road Landfill, a county-owned facility located approximately five miles southeast of the City of Hollister on John Smith Road.

According to CalRecycle (2020b), the John Smith Road Landfill has a cease operation date of January 1, 2032. Total capacity of the landfill is 9.3 million cubic yards. The remaining capacity, as of March 31, 2018, was 3.5 million cubic yards. The maximum permitted tonnage per day at the landfill is 1,000 tons.

Regulatory Setting

Federal

Federal Resource Conservation and Recovery Act. The Resource Conservation and Recovery Act was enacted in 1976 to address the huge volumes of municipal and industrial solid waste generated nationwide. The Resource Conservation and Recovery Act is an amendment to the Solid Waste Disposal Act of 1965 and has subsequently been amended several times, with the most substantial changes made by the Hazardous and Solid Waste Amendments of 1984. This act, and its amendments, governs the management of solid and hazardous waste and underground storage tanks. It authorizes EPA to regulate waste management activities and 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 equivalent to, consistent with, and no less stringent than the federal program.

Title 40 of the Code of Federal Regulations. Title 40 of the Code of Federal Regulations (CFR), Part 258 (Resource Conservation and Recovery Act RCRA, Subtitle D) contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the Federal landfill criteria. The Federal regulations address the location, operation, design, groundwater monitoring, and closure of landfills.

State

California Integrated Waste Management Regulations (AB 939, AB 341, and SB 1016). To minimize the amount of solid waste that must be disposed of, the State Legislature passed the California Integrated Waste Management Act of 1989, effective January 1990. Under AB 939, all cities and counties were required to divert at least 50 percent of solid waste from landfill facilities by the year 2000 and every year thereafter. This act also requires every city and county to report to CalRecycle annually and requires jurisdictions to begin planning for new landfills when the jurisdiction’s primary disposal site reaches its 15-year capacity.

In 2008, Senate Bill 1016 was passed, which builds on AB 939 compliance requirements by implementing a streamlined measure of jurisdictions' performance. SB 1016 accomplishes this by focusing on a disposal-based indicator rather than diversion rates. The per capita disposal rate utilizes two factors: a jurisdiction's residents/employees and its disposal amount as reported by disposal facilities. Thus, rather than mandating a 50 percent or more diversion of solid waste, SB 1016 requires a 50 percent or less disposal rate of solid waste per capita. In 2012, the California legislature sought to further reduce solid waste disposal rates through AB 341, which set a goal of 75 percent recycling, composting, or source reduction of solid waste statewide by 2020 (CalRecycle 2020d).

CalRecycle. The California Department of Resources Recycling and Recovery, known CalRecycle, is a department within the California Environmental Protection Agency. CalRecycle administers and provides oversight for all of California's state-managed waste handling and recycling programs. Known mostly for overseeing beverage container and electronic-waste recycling, CalRecycle is also responsible for organics management, used tires, used motor oil, carpet, paint, mattresses, rigid plastic containers, plastic film wrap, newsprint, construction and demolition debris, medical sharps waste, household hazardous waste, and food-scrap composting. In addition to these duties CalRecycle also provides training and support for agencies that regulate and inspect California's solid waste facilities including active landfills, materials recovery facilities, solid waste transfer stations, and compost facilities (CalRecycle 2020c).

Regional

Santa Clara County Integrated Waste Management Plan. The Santa Clara County Integrated Waste Management Plan, prepared pursuant to Assembly Bill 939 and more recently Senate Bill 1016, is the primary tool for waste reduction and recycling programs that are countywide in scope. This plan sets the countywide goals for reducing waste sent to landfills by 50 percent by 2000 and each year thereafter.

San Benito County Integrated Waste Management Regional Agency. The Integrated Waste Management Department is responsible for oversight of landfill operations for the John Smith Road landfill.

City of Gilroy

The city requires Recology to operate both residential and commercial recycling programs that rely on source-separation efforts by the waste generator. There are currently no formal sorting operations that divert recyclables out of the collected waste stream. The city also supports special event recycling at Gilroy Gardens and the Garlic Festival. Household hazardous waste is collected through a county-operated collection program that has monthly events at their San Martin facility.

City regulations require recycling of construction and demolition debris (Gilroy Municipal Code Chapter 12.66). Specifically, applicants for any covered project are required to recycle or divert at least 50 percent of materials generated for disposal the project. Covered projects include "construction, demolition, and on-site improvements such as walkways, piping, parking lots, other adjoining hardscape, and renovation projects within the city, which involve the construction, demolition or renovation of five thousand (5,000) square feet or more" (Gilroy Municipal Code Chapter 12.64). Those applicants for non-covered projects are not required, but are encouraged, to divert at least 50 percent of all project-related construction and demolition waste. Such projects include sites that are 5,000 square feet or less, publicly owned rights of way, utilities, and roadways.

Thresholds of Significance

The City of Gilroy CEQA thresholds of significance state that a project may have a significant effect on the environment if it would not:

- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid-waste disposal needs.

Analysis, Impacts, and Mitigation

IMPACT	Sufficient Landfill Capacity to Accommodate the Project's Solid Waste Disposal Needs	Less Than Significant

Buildout of the 2040 General Plan has the potential to increase the population of Gilroy from 55,928 (January 1, 2019) to approximately 75,684 and has the potential to create an additional 13,610 jobs (refer to Table 2.2-1). The most recent disposal rates reviewed and formally approved by CalRecycle are from 2018 and were 4.5 pounds per day per capita and 12.9 pounds per day per employee. Assuming that Gilroy's 2018 waste disposal rates remain constant, buildout of the Gilroy 2040 General Plan could produce additional residential solid waste at a rate of about 88,902 pounds per day, or 39.7 tons per day (16,224 tons per year), and approximately 87.8 tons per day (32,041 tons per year) by employed persons, which would be disposed of in the John Smith Road or other area landfills. Using these factors, under Gilroy 2040 General Plan buildout conditions, Gilroy could be generating approximately 127.5 tons per day of additional solid waste, which equates to approximately 12.75 percent of the landfill's currently permitted daily tonnage limit of 1,000 tons per day. However, with continued compliance with state and local waste reduction programs, a downward trend in the need for landfill disposal will continue, which would decrease the amount of solid waste generated by the city and resultant demands on landfill facilities.

Continued compliance with city and county waste reduction programs and policies would reduce the volume of solid waste entering landfills. Additionally, future new development consistent with the Gilroy 2040 General Plan land use designations would be reviewed on a project-by-project basis to ensure that solid waste disposal services and landfill facilities would be available to serve the development. Nonetheless, buildout associated with implementation of the proposed 2040 General Plan would increase the volume of solid waste generated in the city that is disposed of in existing landfills, thus contributing to the acceleration of landfill closures or the use of more distant sites.

Gilroy 2040 General Plan

The following Gilroy 2040 General Plan goals and policies address solid waste reduction and recycling to reduce the amount of solid waste entering the landfill. Refer to Appendix C, Gilroy 2040 General Plan Goals, Policies, and Programs for the full policy language.

Goal PFS 6: Reduce the amount of waste entering regional landfills through an effective waste management program.

- PFS 6.1 Mandatory Collection
- PFS 6.2 Adequate Service
- PFS 6.3 Solid Waste Diversion
- PFS 6.4 Recycling
- PFS 6.5 Source Reduction
- PFS 6.6 Municipal Waste Reduction
- PFS 6.7 Recycled Products or Processes for Capital Projects
- PFS 6.8 Disposable, Toxic, or Non-Renewable Products
- PFS 6.9 Construction and Demolition Waste Recycling
- PFS 6.10 Regional Coordination

Policy PFS 6.1 calls for continued weekly solid waste collection throughout the city. Policy PFS 6.2 calls for the provision of adequate service through monitoring of the city's solid waste and recycling services franchisee to ensure that the services provided are adequate to meet the needs of the community. PFS 6.3 requires compliance with state goals regarding reduction of solid waste disposal, including calculated disposal rate standards. Policies PFS 6.4 and PFS 6.5 requires reductions in the amount of solid waste disposed of in landfills by maintaining recycling programs and encouraging the participation of all residents and businesses, and by encouraging efforts to decrease consumption, reduce material weight and volume, reuse products and materials, and increase the durability of products and materials. Policies PFS 6.6 through PFS 6.8 call for reductions in solid waste generated by municipal operations and capital projects by "going paperless" and buying products with less packaging or in bulk, where feasible, and continuing and expanding the use of recycled products or recycling processes whenever practicable, and by reducing the use of disposable, toxic, or nonrenewable products in city operations. Policy PFS 6.9 requires demolition, remodeling, and major new development projects to salvage or recycle asphalt and concrete and all other nonhazardous construction and demolition materials to the maximum extent practicable. Policy PFS 6.10 calls for coordination with and support of regional efforts to develop and implement effective waste management strategies.

Goal NCR 3: Contribute to improvements in regional air quality and reductions in greenhouse gas emissions.

- NCR 3.9 Food Scrap and Yard Waste Diversion
- NCR 3.13 Zero Waste

Policy NCR 3.9 promotes the collection of food scraps and compostable paper in yard waste bins through public outreach campaigns. Policy NCR 3.13 calls for reduced municipal waste through procurement policies, waste diversion goals and waste stream monitoring and analysis. The implementation programs for these two policies ensure that reductions in residential, municipal and construction solid wastes are achieved.

Conclusion

Implementation of the policies listed here in coordination with federal, state, and local mandates for solid waste source reduction, recycling and diversion would reduce the potentially significant impacts related to an increase in demand for solid waste disposal facilities to a less-than-significant level. No additional mitigation is required.

3.21 ENERGY CONSERVATION

The Gilroy 2040 General Plan provides guidance for development and operations of the city. Development will result in increased demand for energy during its construction and operations. Similarly, city operations needed to serve new development and to support city services and infrastructure will result in increased energy demand. Primary sources of energy use will be transportation fuels, electricity, and natural gas.

Information is this section is largely derived from the following sources:

- *City of Gilroy 2040 General Plan Draft Transportation Analysis* (Hexagon Transportation Consultants 2020), and
- *City of Gilroy 2040 General Plan Greenhouse Gas Emissions Modeling Methodologies and Assumptions* (EMC Planning Group 2020).

No comments regarding energy were received in response to the original and revised NOP.

Environmental Setting

Pacific Gas and Electric (PG&E), one of the five largest utilities in the state, is the primary purveyor of electricity and natural gas in Santa Clara County and the energy purveyor to the city. PG&E operates a major network of electricity and natural gas transmission lines within its service area, including the county and the city.

For more than a decade, federal, state and regional energy agencies and energy providers have been focused on reducing growth in fossil-fuel based energy demand, especially in the form of transportation fuels and electricity. Key environmental goals have been to reduce air pollutants and greenhouse gas emissions. As a result, investments in a range of energy efficiency and conservation programs and technologies, and transportation fuel efficiency have been increasing, as has the focus on land use planning as a tool to reduce vehicle trips/lengths.

Per the transportation analysis presented in Section 3.17, Transportation and Mobility, and included in Appendix G, total vehicle miles traveled (VMT) per day in the city in 2017 was modeled at 1,440,164 miles. VMT serves as a general proxy for the magnitude of transportation fuel consumption. Total electricity consumption in Gilroy in 2018 was approximately 300,910,491 kilowatt hours (kWh) (Stan Ketchum, email message, January 27, 2020a). Natural gas consumption in Gilroy in 2018 was approximately 35,182,844 therms. The energy content of natural gas is measured in British Thermal Units (BTU). A BTU is the amount of energy required to raise the temperature of one pound of water by 1 ^{0}F. A therm is equal to 100,000 BTU.

Policy and Regulatory Setting

Mandates for improved energy conservation, and improved transportation fuel efficiency and use of alternative fuels (e.g. electricity) is embodied in many federal, state, and local statutes and policies. At the federal level, energy standards apply to numerous products (e.g., the EnergyStar™ program) and transportation (e.g., vehicle fuel efficiency standards). At the state level, Title 24 of the California Administrative Code sets energy standards for buildings, rebates/tax credits are provided for installation of renewable energy systems, and the Flex Your Power program promotes conservation in multiple areas. Important, representative energy conservation guidance, regulations, and legislation are summarized below.

California Energy Commission

The California Energy Commission is California's primary energy policy and energy planning agency. Created by the California Legislature in 1974, the California Energy Commission has five major responsibilities: 1) forecasting future energy needs and keeping historical energy data, 2) licensing thermal power plants 50 megawatts or larger, 3) promoting energy efficiency through appliance and building standards, 4) developing energy technologies and supporting renewable energy, and 5) planning for and directing state response to energy emergencies. Under the requirements of the California Public Resources Code, the California Energy Commission, in conjunction with the Department of Commerce's Division of Oil, Gas, and Geothermal Resources, is required to assess electricity and natural gas resources on an annual basis or as necessary. The Systems Assessment and Facilities Siting Division of the California Energy Commission provides coordination to ensure that needed energy facilities are authorized in an expeditious, safe, and environmentally acceptable manner.

California 2008 Energy Action Plan Update

The state adopted the *Energy Action Plan* in 2003, followed by the *Energy Action Plan II* in 2005. The current plan, the *California 2008 Energy Action Plan Update*, is California's principal energy planning and policy document. The updated document examines the state's ongoing actions in the context of global climate change, describes a coordinated implementation plan for state energy policies, and identifies specific action areas to ensure that California's

energy resources are adequate, affordable, technologically advanced, and environmentally sound. The *California 2008 Energy Action Plan Update* establishes energy efficiency and demand response (i.e., reduction of customer energy usage during peak periods) as the first-priority actions to address California's increasing energy demands. Additional priorities include the use of renewable sources of power and distributed generation (e.g., the use of relatively small power plants near or at centers of high demand). To the extent that these actions are unable to satisfy the increasing energy demand and transmission capacity needs, clean and efficient fossil-fired generation is supported. The *California 2008 Energy Action Plan Update* examines policy changes in the areas of energy efficiency, demand response, renewable energy, electricity reliability and infrastructure, electricity market structure, natural gas supply and infrastructure, research and development, and climate change (California Energy Commission 2008).

California Building Codes

California's *Energy Efficiency Standards for Residential and Nonresidential Buildings* (California Code of Regulations, Title 24, Part 6) were first established in 1978 to reduce California's energy consumption. The standards are updated every three years. The 2019 standards were adopted in May 2018 and went into effect on January 1, 2020. The 2019 standards are structured to achieve the state's goal that all new low-rise residential buildings (single-family and multi-family homes) be zero net energy (California Energy Commission 2018a). Single-family homes built with the 2019 standards will use about seven percent less energy due to energy efficiency measures versus those built under the previous 2016 standards. Non-residential buildings will use about 30 percent less energy compared to the 2016 standards, mainly due to lighting upgrades (California Energy Commission 2018b).

The *Green Building Standards Code* (also known as CALGreen), which requires all new buildings in the state to be more energy efficient and environmentally responsible, took effect in January 2011 and was most recently updated in July 2019 (California Building Standards Commission 2019). These comprehensive regulations are intended to achieve major reductions in interior and exterior building energy consumption.

AB 2021 (Energy Efficiency Act of 2006)

This bill encourages all investor-owned and municipal utilities to aggressively invest in achievable, cost-effective, energy efficiency programs in their service territories. The results of this bill are expected to reduce forecasted electricity demand by 10 percent over 10 years from 2006 through 2016, offsetting the projected need to build 11 new major power plants.

AB 1493 ("Pavley I Rule")

AB 1493, enacted on July 22, 2002, required the California Air Resources Board (CARB) to develop and adopt regulations that improve fuel efficiency of vehicles and light-duty trucks. Pavley I requirements apply to these vehicles in the model years 2009 to 2016.

Advanced Clean Cars

In January 2012, CARB adopted an Advanced Clean Cars program, which is aimed at 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.

Executive Order B-48-18

In 2018, Executive Order B-48-18 established a goal of 5 million zero-emission vehicles on California roads by 2030, in recognition of the critical need to reduce emissions from the transportation sector in order to meet the GHG emissions target of SB 32.

Renewable Energy Legislation/Orders

The California Renewable Portfolio Standard Program, which requires electric utilities and other entities under the jurisdiction of the California Public Utilities Commission to meet 20 percent of their retail sales with renewable power by 2017, was established by SB 1078 in 2002. The renewable portfolio standard was accelerated to 20 percent by 2010 by SB 107 in 2006. The program was subsequently expanded by the renewable electricity standard approved by CARB in September 2010, requiring all utilities to meet a 33 percent target by 2020. The Legislature then codified this mandate in 2011 with the enactment of SB X1-2. SB 350, adopted in September 2015, increases the standard to 50 percent by 2030. This same legislation includes statutes directing the California Energy Commission and Public Utilities Commission to regulate utilities producing electricity so that they will create electricity-generation capacity sufficient for the widespread electrification of California's vehicle fleet, as a means of reducing GHG emissions associated with the combustion of gasoline and other fossil fuels. The Legislature envisions a dramatic increase in the sales and use of electric cars, which will be recharged with electricity produced with increasingly cleaner power sources.

On September 10, 2018, former Governor Brown signed into law SB 100 and Executive Order B-55-18. SB 100 raises California's Renewable Portfolio Standard requirement to 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. Executive Order B-55-18 establishes a carbon neutrality goal for California by 2045, and sets a goal to maintain net negative emissions thereafter.

Silicon Valley Clean Energy

The City of Gilroy is a member of Silicon Valley Clean Energy. The organization works in partnership with PG&E, buying clean electricity direct from the source, encouraging the kind of market growth and competition that results in more renewable energy sources and lower energy generation rates.

Thresholds of Significance

The City of Gilroy has not formally adopted thresholds of significance for energy impacts. For purposes of this EIR section, the questions in the State CEQA Guidelines initial study checklist are used to evaluate energy impacts. Energy impacts are considered significant if the project would:

- Result in a 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.

Analysis, Impacts, and Mitigation

IMPACT	Development Consistent with the Gilroy 2040 General Plan Would Increase Energy Use but Would not Result in Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources	Less Than Significant

The Gilroy 2040 General Plan provides the opportunity for new urban growth, including residential, commercial, and industrial end uses that are common throughout the state, and which would support Gilroy's projected growth needs. The Gilroy 2040 General Plan does not provide future growth capacity that substantially exceeds the city's needs and does not anticipate individual end use types that are sources of excessive energy consumption. In addition, the Gilroy 2040 General Plan provides for increased densities within a smaller growth footprint than does the existing general plan. In this context, the Gilroy 2040 General Plan is responsive to reducing the growth of VMT and associated transportation fuel use.

Projected Energy Consumption

The three primary sources of long-term energy consumption from new development and operations within the city will be fuel use in vehicles traveling within, and to and from the city, use of natural gas, and use of electricity. Each of these energy consumption sources is described below.

The energy consumption projections assume that full buildout of the Gilroy 2040 General Plan land use designations would occur by 2040. However, because a number of factors can affect the actual rate of growth, it is more likely that full buildout would occur later than 2040. Therefore, the analysis of energy demands by the year 2040 is considered to be conservative.

Transportation Fuel Use. The transportation analysis prepared for the Gilroy 2040 General Plan by Hexagon Transportation Consultants is included in Appendix G. It includes analysis of the number of vehicle miles traveled (VMT) by vehicle trips originating within and traveling to the city in specific target years. Under baseline conditions (2017), daily

VMT was estimated at 1,440,164 miles. This includes travel for all types of vehicles in the vehicle fleet including passenger cars and trucks and light and heavy-duty trucks. At 2040 buildout, daily VMT is projected to climb to 2,446,223 miles. Daily VMT per service population in 2017 is estimated at 18.94 miles per person per day and projected at 20.20 miles per service population per day in 2040, for an increase of 6.24 percent.

As VMT increases, consumption of vehicle fuels will increase, though the rate of increase will be significantly reduced by continuing improvements in vehicle fuel efficiency, increases in the percentage of the vehicle fleet comprised of zero emissions vehicles, and technological advances in the formulation and deployment of alternative fuels. Fuel demand (gas and diesel) under 2017 conditions is estimated at about 38,367 gallons per year, while the 2040 fuel demand estimated at about 62,335 gallons per year based on VMT. EMFAC fuel demand results (in gallons of fuel per year) are included Appendix E. Please refer to the discussion of GHG impacts resulting from Gilroy 2040 General Plan buildout in Section 2.7, Greenhouse Gas Emissions, for additional information about the EMFAC model.

Electricity. Stan Ketchum (email message, January 27, 2020a) indicates that in 2018, electricity consumption in the city was approximately 300,910,491 kWh. According to Energy Consumption Data Management System information maintained by the California Energy Commission, in 2018, total electricity consumption in Santa Clara County was 16,708,080,341 kWh. In 2018, electricity consumption in the city represented approximately 1.8 percent of total county electricity consumption. Section 5.3, Energy by Land Use, Unmitigated - Electricity, in the CalEEMod results (Appendix E) shows that the increase in electricity demand associated with buildout of the Gilroy 2040 General Plan land use designations would be about 238,079,930 kWh. This represents an approximately 79 percent increase relative to the 2018 electricity demand.

Natural Gas Use. Stan Ketchum (email message, January 27, 2020a) indicates that in 2018, natural gas consumption in the city was approximately 35,182,844 therms. According to Energy Consumption Data Management System information maintained by the California Energy Commission, in 2018, total natural gas consumption in Santa Clara County was 440,030,822 therms. In 2018, natural gas consumption in the city represented approximately eight percent of total county natural gas consumption. Table 5.2 Energy by Land Use, Unmitigated – Natural Gas, in the CalEEMod results (Appendix E) shows that at buildout of the land use designations in the Gilroy 2040 General Plan, the increase in natural gas demand would be approximately 473,817,078,000 BTU (4,739,302 therms). This represents an approximately 13 percent increase relative to 2018 demand.

Gilroy 2040 General Plan

The Gilroy 2040 General Plan includes a multitude of policies and programs which will directly and indirectly result in reduced energy consumption. Please refer to the Analysis, Impacts, and Mitigation section of Section 3.8, Greenhouse Gas Emissions, under the discussion of Gilroy 2040 General Plan GHG impacts for a list of policies and

implementation programs that would result in reduced GHG emissions. These policies are referenced in relation to the reduction in GHG emissions and through doing so, reduce VMT/fuel consumption, electricity demand, and natural gas demand. The policies and programs in the Gilroy 2040 General Plan present a suite of measures and best practices that reflect growing expectations of local agencies to manage growth for reduced energy consumption.

Under Gilroy 2040 General Plan buildout conditions, transportation fuel demand will be reduced through Gilroy 2040 General Plan land use and mobility policies and programs that result in reduced VMT relative to buildout conditions without these measures. Examples include Policies LU 1.4, LU 3.5, LU 7.8, M 2.2, M 3.4, M 3.6, M 4.1, and M 5.4. Similarly, electricity consumption would be reduced through policies and programs that include, but are not limited to: improved building energy efficiency, use of alternative/renewable energy sources such as solar power, and reduced energy demand for water pumping through water conservation measures. Examples include Policies LU 8.12, PFS 2.4, PFS 2.5, PFS 2.6, PFS 8.10, NCR 3.1, and NCR 3.4. Natural gas consumption would also be reduced through improved building energy efficiency as promoted in policies PFS 2.5, PFS 2.6, PFS 8.4, NCR 3.1, and NCR 3.4.

As a tool to assist with implementing a number of Gilroy 2040 General Plan policies and programs that reduce energy consumption (and GHGs), Policy NCR 3.14 states that the city will prepare a qualified GHG reduction plan. That plan would incorporate a range of VMT reduction/alternative fuels/alternative transportation measures, and electricity and natural gas demand reduction measures that reduce overall energy demand. The Gilroy 2040 General Plan also includes programs for funding preparation and implementation of the qualified GHG reduction plan.

Conclusion

Conformance to applicable State regulations and legislation and implementation of the Gilroy 2040 General Plan goals, policies, and programs would not result in wasteful, inefficient, or unnecessary consumption of energy resources. No additional mitigation is required.

IMPACT	Development Consistent with the Gilroy 2040 General Plan Would Not Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency	No Impact

As described in the Regulatory Setting above, a multitude of state regulations and legislative acts are aimed at improving vehicle fuel efficiency, energy efficiency, and enhancing energy conservation. New development within the city must comply with the regulations that are within the implementation control of the city and project developers. For example, in the transportation sector, the Pavley I standards are representative of

legislation for improving transportation fuel efficiency whose implementation is beyond the control of a local jurisdiction or individual development project. The gradual increased usage of electric cars powered with cleaner electricity will also reduce fossil fuel usage associated with transportation. In the renewable energy use sector, representative legislation for the use of renewable energy includes, but is not limited to Senate Bill 350 and Executive Order B-16-12. In the building energy use sector, representative legislation and standards for reducing natural gas and electricity consumption include, but are not limited to Assembly Bill 2021, CALGreen, and Title 24 building standards. The City of Gilroy enforces the California Building Code Standards through the development process.

Conclusion

Conformance to applicable State regulations and legislation and implementation of the Gilroy 2040 General Plan goals, policies, and programs would ensure that buildout of the Gilroy 2040 General Plan would not conflict with or obstruct state or local plans for renewable energy or energy efficiency.

4.0
OTHER CEQA CONSIDERATIONS

4.1 CUMULATIVE IMPACTS

CEQA Requirements

CEQA Guidelines section 15130 requires a discussion of cumulative impacts when the project's incremental effect is cumulatively considerable, as defined in section 15065(a)(3), which states, "The project has possible environmental effects that are individually limited but cumulative considerable. Cumulatively considerable means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulative considerable. A cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts that do not result in part from the project evaluated in the EIR. When the combined cumulative impacts associated with the project's incremental effect and the effects of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. A lead agency shall identify facts and analysis supporting its conclusion that the cumulative impact is less than significant.

A lead agency may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and therefore, is not significant. A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. The lead agency shall identify facts and analysis supporting its conclusion that the contribution will be rendered less than cumulatively considerable.

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 the standards of practicality and reasonableness and should focus on the cumulative impact to which the other identified projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

CEQA requires a cumulative development scenario to consist of either:

- 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
- a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

Cumulative Development Scenario and Analysis

Cumulative effects occur when future development associated with buildout of the 2040 General Plan is combined with development in the surrounding areas, or in some instances, the entire region. The geographic area considered for each cumulative impact area depends on the impact analyzed. For example, when assessing aesthetic impacts, the pertinent geographic study area is the vicinity of the areas of new development under the proposed general plan from which the new development can be publicly viewed and may contribute to a significant cumulative visual effect. In assessing cumulative air quality impacts, on the other hand, all development within the air basin contributes to regional emissions of criteria pollutants, and a basin-wide emissions projection is the best tool for determining the cumulative effect. In assessing greenhouse gas emissions, as well as public services facilities (police, fire, schools), the general plan level impact analysis also represents the cumulative impact analysis.

The following provides a summary of the cumulative impact scope for each impact area, followed by the impact analysis and a determination as to whether the proposed general plan's contribution to the cumulative impact is considerable.

Aesthetics

The geographic setting for visual impacts includes future development under the proposed General Plan. No additional area is considered as the area outside of the Urban Growth Boundary in unincorporated Santa Clara County is primarily Agriculture Large Scale, Open Space Reserve, Rural Residential, Ranchlands, and Hillside.

Development beyond Gilroy's Urban Growth Boundary in unincorporated Santa Clara County would not measurably add to the aesthetic impacts associated with build-out of the general plan. Refer to Section 3.1, Aesthetics, for a discussion of aesthetic impacts.

Agricultural Resources

The geographic context for agricultural resources is the County of Santa Clara. According to the *Santa Clara County Agricultural Plan* (County of Santa Clara 2018, pg. 20), between 1984 and 2014, Santa Clara County lost 14,807 acres of farmland. Mapping conducted by the County found that of the 14,807 acres of agricultural land converted to other uses, 42 percent of the agricultural conversions were attributed to city annexations, while 58 percent was due to rural development. In rural unincorporated lands of Santa Clara County, the majority of agricultural land conversions have occurred in the agricultural areas around the communities of San Martin and Morgan Hill.

The majority of agricultural conversions from urban development are associated with city annexations by the cities of Gilroy and Morgan Hill. This urban greenfield development trend peaked in the year 2000, but has dropped off considerably since that time (Ibid. pg. 29).

Within the rural areas, over 83 percent of land conversions from rural development occurred on existing properties sized 10 acres or less. The majority of these conversions entailed the development of single-family homes on existing lots in the Morgan Hill and San Martin Area. Although the County has a General Plan that establishes a 20-acre minimum lot size for subdivision within the agricultural zoning areas, much of the rural ranchette development has occurred on pre-existing lots that were created prior to existing zoning regulations.

Additional mapping and modeling were conducted by the County, incorporating agricultural conversion threats identified by the State. Through this modeling, it is estimated that over 28,391 acres of farmland are at risk of conversion in the future. Farmlands near southern San Jose, south and east of Morgan Hill, and around Gilroy are at the greatest risk of development, and are considered high priorities for conservation.

Under proposed Gilroy 2040 General Plan buildout conditions, development within the Urban Growth Boundary could result in the conversion of up to 1,119 acres of important farmland (prime farmland and farmland of statewide importance), which is considered a significant and unavoidable, adverse environmental impact. The loss of 1,119 acres of important farmland is approximately four percent of the estimated 28,391 acres the County anticipates is at the risk of conversion in the future. This is in addition to the loss of farmland in the Gilroy planning area over the past decades. Therefore, this contribution to the cumulative loss of important farmland within Santa Clara County is considerable.

Air Quality

Cumulative air quality impacts could occur from a combination of the proposed Gilroy 2040 General Plan combined with regional growth within the San Francisco Bay Area Air Basin.

Air quality impacts are regional in nature as no single project (or buildout of a single city) generates enough emissions that would cause an air basin to be designated nonattainment.

Because the air quality Gilroy 2040 General Plan impacts are inherently considered in a cumulative context, the analysis in Section 3.3, Air Quality is a cumulative impact assessment.

Biological Resources

The geographic scope of the cumulative analysis for biological resources considers the area within Santa Clara County covered by the Santa Clara Valley Habitat Plan, which covers 519,506 acres in Santa Clara Valley. Therefore, cumulative biological resources impacts would occur throughout this area, in accordance with the general plans of each of the city and county member agencies.

The potential impacts of general plan implementation on biological resources are site-specific. The overall cumulative effect is dependent on the degree to which significant vegetation and wildlife resources are protected, associated with individual projects.

Cumulative development within the valley covered by the Habitat Plan, contributes to an incremental reduction in the amount of existing wildlife habitats for both covered and non-covered species. Habitat is lost as development encroaches into previously undeveloped areas, disrupting or eliminating movement corridors and fragmenting the remaining suitable habitat retained within parks, private open space, or undeveloped properties. New development in the region would result in further conversion of existing natural habitats to urban and suburban conditions, limiting the existing habitat values of the surrounding area. This could include further loss of sensitive habitats.

Expansion of the city within the Urban Growth Boundary would have an adverse effect on sensitive habitat and wildlife species, as discussed in Section 3.4, Biological Resources. The EIR/EIS on the Habitat Plan concluded that the Habitat Plan would have an overall beneficial impact on the species considered (Habitat Plan, Table ES-1). Impacts to non-covered species would be less than significant with mitigation measures presented in Section 3.4 of this EIR. Therefore, the Gilroy 2040 General Plan's biological impacts would be either beneficial, as related to Habitat Plan covered species, or less than significant with mitigation for non-covered species. The cumulative impacts would not be considerable.

Cultural Resources

Cumulative impacts to cultural resources could occur from development planned for under Gilroy 2040 General Plan buildout, as well as within all of Santa Clara County.

Federal and state regulations are designed to avoid or reduce the potential for significant impacts on unique cultural resources from site preparation (i.e. grading and trenching), construction and other activities. Consequently, probable future development within the region would be less likely to impact unique historic and archaeological resources. While the potential net impact of existing cumulative development in the region may be considered cumulatively significant, future development within the Gilroy Urban Growth Boundary, as well as within other jurisdictions with Santa Clara County, would be

conditioned to avoid or lessen its impacts on these resources. Consequently, the proposed Gilroy 2040 General Plan's contribution to the cumulative impact would be less than cumulatively considerable.

Geologic Hazards

The cumulative context for the analysis of impacts resulting from geologic hazards generally is site-specific rather than cumulative in nature, because each project site has a different set of geologic considerations that would be subject to uniform site development and construction standards. As such, the potential for cumulative impacts to occur is limited. In this case, the site-specific conditions are those that exist within the proposed Urban Growth Boundary.

Cumulative development within the region as well as the city would involve excavation and trenching, mass grading, and cut-and-fill and other construction methods needed to create building pads, roadways, and infrastructure. The potential for topographic alteration and resulting erosion and/or slope instability would be specific to the location of activities, such as within the spheres of influence of cities in the vicinity and in unincorporated areas within the vicinity. These effects generally would not combine with similar effects elsewhere. Therefore, these types of geologic and soils effects from past, existing and probable future development in the vicinity are not cumulatively significant. Similarly, hazards from fault rupture, landslides, and other geologic hazards, would be site specific and would not be cumulatively significant.

Cumulative development in other jurisdictions within the County would be required to be consistent with local and state laws and regulations including the seismic safety standards contained in the California Building Code, local general plan policies, and other building and engineering standards designed to reduce risks from seismic hazards. As a result, seismic and soils hazards would be a less than significant cumulative impact.

Geologic conditions with the Urban Growth Boundary are similar to those in vicinity cities. In the same manner that cumulative geologic hazards are less than cumulatively significant, hazards within the proposed Urban Growth Boundary would not pose a significant risk to future development. Similarly, all future development in the city must be constructed consistent with local and state laws and regulations designed to reduce hazards from geologic and seismic hazards. Consequently, the Gilroy 2040 General Plan's contribution to cumulative geologic and soils impacts would be less than cumulatively considerable.

Greenhouse Gas Emissions

Because climate change is a global phenomenon, no individual development project or build-out of any one city located anywhere in the world would have a significant individual impact on climate change. It is the sum total of contributions of development around the world that contribute to the problem. Hence, greenhouse gas emissions leading to global climate change are inherently a cumulative effect. The individual contribution of a project to

greenhouse gas emissions in the atmosphere can generally be quantified in terms of volume of greenhouse gas emissions that it generates as converted to CO2e. However, the precise indirect effects of that contribution are difficult if not impossible to identify due to the complexity of local, regional, and global atmospheric dynamics and the broad scale at which global warming impacts such as sea level rise, increase in weather intensity, decrease in snowpack, etc. are known to occur. Because the potential impacts of the Gilroy 2040 General Plan are inherently considered in a cumulative context, the analysis in Section 3.7, Greenhouse Gas Emissions is a cumulative impact assessment.

Hazardous Materials and Wildland Fire Hazards

The cumulative setting for hazards and hazardous materials impacts includes future development under the proposed General Plan. No additional area is considered as the area outside of the Urban Growth Boundary in unincorporated Santa Clara County is primarily Agriculture Large Scale, Open Space Reserve, Rural Residential, Ranchlands, and Hillside. See Section 3.8, Hazardous Materials and Wildland Fire Hazards, for a discussion of the issue.

Storm Water and Flooding

The geographic context used for the cumulative assessment of storm water and flooding impacts is the Uvas-Llagas Watershed. The city of Gilroy is located within the greater Pajaro River Watershed and is bisected by two sub-watersheds that convey storm water runoff to smaller creeks that ultimately drain to the Pajaro River and Monterey Bay: the Uvas Creek Watershed and the Llagas Creek Watershed, also collectively referred to as the Uvas-Llagas Watershed. Incorporated areas within this watershed include Gilroy, Morgan Hill, and the southern portion of San Jose. A discussion of the geographic context is included in Section 3.9, Storm Water and Flooding. Additional information may be found on the Valley Water website at https://www.valleywater.org/learning-center/watersheds-of-santa-clara-valley.

Development associated with the proposed 2040 Gilroy General Plan, along with development in Morgan Hill, south San Jose, and the unincorporated county portions of the watershed, would result in the following storm water and flooding impacts:

- Diminished Water Quality from Storm Water Pollutants;
- Expose People to Flooding by Placing Housing or Structures Within a 100-Year Flood Hazard Area; and
- Expose People or Structures to Hazards from Flooding as a Result of Dam Failure.

As discussed in Section 3.9, Storm Water and Flooding, the proposed Gilroy 2040 General Plan policies and implementation measures ensure that these impacts would not be significant. Therefore, Gilroy's contribution to this cumulative impact would not be considerable.

Groundwater

The geographic context used for the cumulative assessment of groundwater impacts is the area within the boundaries of Valley Water. The Valley Water 2015 Urban Water Management Plan was utilized for the analysis.

The Valley Water Urban Water Management Plan and the city of Gilroy Urban Water Management Plan quantified the water use and demand projections within their jurisdictions through 2040. According to the Gilroy Urban Water Management Plan, supply is projected to exceed demand in normal, single dry year, and multiple dry years through 2040. However, Valley Water determined that with the use of reserves, there only appears to be sufficient water to meet demands throughout their entire service area during a single dry year through 2035. This assumes that reserves are at healthy levels at the beginning of the year and that the projects and programs identified in the 2012 Water Supply and Infrastructure Master Plan are implemented.

According to the Valley Water Urban Water Management Plan, if reserves are low at the beginning of a single dry year, Valley Water might need to call for water use reductions in combination with using reserves. Under 2040 demand conditions, reserves are insufficient at the beginning of the year to meet County demands without overdrawing the groundwater reserves. Therefore, while groundwater supplies are sufficient to meet the demand associated with implementation of the general plan and implementation of the general plan would not have an individually significant impact on the groundwater basin, when considered with the demand of the County as a whole, the increased demand associated with general plan implementation could result in a cumulatively significant contribution to water demand, such that it could impact the groundwater basin. The Valley Water Urban Water Management Plan projected countywide water demand in 2040 to be 435,100 acre-feet with Gilroy's contribution to this demand at 17,100 acre-feet (3.9 percent) (see Table 4-1) Valley Water would likely call for a five to 10 percent reduction in water use in such a year, consistent with its Water Shortage Contingency Plan. Additional projects and programs may include additional long-term water conservation savings, water recycling, recharge capacity, storm water capture and reuse, banking, and storage. While the water demand associated with implementation of the General Plan may contribute to the depletion of groundwater supplies, at 3.9 percent of the total countywide demand, it is unlikely this contribution would be cumulatively considerable.

Noise

The traffic noise levels are based on cumulative traffic conditions that take into account cumulative increases in traffic in the region that affects noise in the city of Gilroy. Therefore, the traffic noise analysis in Section 3.12, Noise, represents the cumulative noise impacts.

Other sources of noise, such as industrial uses, construction, etc. are not addressed in the cumulative or regional analysis, because noise associated with these types of activities are site specific and do not contribute to the regional noise environment.

Public Services (Police Protection Facilities, Fire Protection Facilities, School Facilities, Parks and Recreation Facilities)

Cumulative impacts are considered in the context of the growth from development under the Gilroy 2040 General Plan within the city combined with the estimated growth in the service areas of each service provider.

Transportation and Mobility

According to the Santa Clara Valley Transportation Authority (VTA), when using an absolute VMT metric, i.e., total VMT (as recommended by the VTA for retail and transportation projects), analyzing the combined impacts for a cumulative impact analysis may be appropriate. However, metrics such as VMT per capita or VMT per employee, i.e., metrics framed in terms of efficiency for use on residential and office projects, cannot be added because they employ a denominator. A project that falls below an efficiency-based threshold that is aligned with long-term goals and relevant plans has no cumulative impact distinct from the project impact. Accordingly, a finding of a less-than-significant project impact would imply a less than significant cumulative impact, and vice versa. This is similar to the analysis typically conducted for greenhouse gas emissions, air quality impacts, and impacts that utilize plan compliance as a threshold of significance.

As presented in Section 3.17, Transportation and Mobility, the Gilroy Travel Demand Forecasting model was used to calculate VMT data, based on VMT per capita and VMT per employee metrics. VMT per capita and VMT per employee are metrics used to calculate average trip length per resident and per employee for CEQA purposes. Average daily VMT for all the existing development in the city serves as the baseline from which a project is evaluated.

Hexagon Transportation Consultants compared Gilroy's 2040 VMT with Santa Clara County's 2040 VMT. This comparison is included as Appendix H.

As described in the transportation analysis report, the results of the VMT evaluation indicate that with the buildout of the 2040 General Plan land uses, the VMT per capita for the city of Gilroy is projected to be 14.62, representing a decrease in residential VMT (-1.84) compared to the baseline citywide average VMT per capita. The analysis also shows the projected VMT per job for the city of Gilroy to be 21.94, representing an increase in employment VMT (1.80) when compared to the baseline citywide average VMT per job.

The VMT projections for Santa Clara County show a countywide VMT per capita projection of 12.52 and VMT per job projection of 19.33 under 2040 ABAG conditions, representing a decrease in VMT per capita (-0.82) and an increase in VMT per job (0.04) when compared to countywide 2017 baseline projections.

Finally, because VMT per capita and per job at the city level was determined to be significant and unavoidable, the city's contribution to the cumulative (or County-wide) VMT is considerable.

Water Services

This issue is regarding the potential environmental impacts associated with water service facilities and infrastructure, which is limited to these services provided by the city of Gilroy. Therefore, there would be no cumulative impact.

Potential impacts to the water supply and availability are discussed in Section 3.10 Groundwater, and the cumulative groundwater impacts are addressed in the cumulative groundwater section presented above.

Wastewater Services

The geographic context used for the cumulative assessment of impacts associated with wastewater service includes Morgan Hill, as well as Gilroy, as the wastewater treatment plant services both cities. The discussion in Section 3.11, Wastewater Services, presents the setting and geographic context for the South County Regional Wastewater Authority (SCRWA), which is the entity that operates the wastewater treatment plants and provides service to both cities.

Development allowed under the proposed 2040 General Plan and the City of Morgan Hill would contribute to an increase in the volume of wastewater delivered for treatment at the SCRWA treatment plant. This increase would occur incrementally as development occurs within the Urban Growth Boundary in Gilroy and through the 2035 growth horizon for Morgan Hill.

Based on cumulative long-term demand forecasts prepared by the SCRWA using data from Morgan Hill and Gilroy, and in accordance with proposed policies and actions of the proposed 2040 General Plan and in Morgan Hill's General Plan, existing or planned capacity of the wastewater treatment system will be sufficient for flow that would be produced by cumulative development in accordance with both cities' general plans. Therefore, the construction of new or expanded wastewater treatment facilities beyond the expansions already anticipated would not be necessary.

Additionally, future development in the SCRWA service area would be subject to the environmental review process and would be required to mitigate any effects to wastewater treatment services on a project-by-project basis. Future development would also be required to comply with all applicable regulations and ordinances protecting wastewater treatment services as described in Section 3.11, Wastewater Services.

Wastewater from cumulative projects would be treated according to the wastewater treatment requirements documented in the NPDES permit for the SCRWA and enforced by the RWQCB.

Therefore, cumulative development would not exceed wastewater treatment requirements, and cumulative impacts to sanitary wastewater service would be less than significant.

Solid Waste Facilities

Solid waste generated by Gilroy is taken to the John Smith Road Landfill, a San Benito County owned facility located approximately five miles southeast of the city of Hollister on John Smith Road.

According to CalRecycle (2020b), the John Smith Road Landfill has a cease operation date of January 1, 2032. Total capacity of the landfill is 9.3 million cubic yards. The remaining capacity, as of March 31, 2018, was 3.5 million cubic yards. The maximum permitted tonnage per day at the landfill is 1,000 tons.

According to CalRecycle (2020c), the Per Resident Disposal Rate Target in pounds per day (PPD) is 6.2, and the Per Employee Disposal Rate Target (PPD) is 16.1. As of 2018, the last reported year, Gilroy's per resident rate was 4.5 PPD and per employee rate was 12.9 PPD, both well below the State's targeted PPD. Therefore, Gilroy's contribution to the cumulative impact at the landfill is not cumulatively considerable.

Energy Conservation

Cumulative energy conservation is considered in the context of the State of California, as many California policies and regulations have resulted in increased energy conservation throughout the state. The following is from the executive summary of the report *California Stars Lighting the Way to a Clean Energy Future* by the Natural Resources Defense Council (2019).

For the United States as a whole, economic growth has far outpaced increases in fossil fuel use for decades. Since 1975, this decoupling has been much larger in California than in the rest of the country. This report explores the reasons and consequences, and concludes as follows:

- Had the other 49 states reduced fossil fuel use relative to economic activity at the same pace as California, nationwide carbon emissions would have been lower in 2016 by 1,200 million metric tons, or 24 percent.
- California was able to cut its fossil fuel use relative to economic activity 18 percent faster than the rest of the country, thanks to a sustained commitment to efficiency and clean energy policies and programs.
- While California has been adopting energy efficiency standards and policies to drive down greenhouse gas emissions, its population and economy have grown at faster rates over the past 40 years than have the population and economy of the country as a whole.

This is a compelling illustration of how we can protect our environment and grow our economy at the same time. Key policies that contributed to California's achievement include:

- Consistent emphasis on energy efficiency as the fastest, cheapest, and cleanest way to meet the energy needs of a growing economy;
- Empowerment of regulators to adopt and regularly strengthen energy efficiency standards to reduce the amount of electricity and fuel required to operate appliances, equipment, and buildings;
- Coordinated investment in research and development and in incentive programs to bring new technologies from the lab into widespread use, and from there into energy efficiency standards;
- Enlistment of regulated utilities as critical clean-energy partners and investors, while ensuring that their financial health is not linked to increases in energy use;
- Statewide renewable energy requirements that have pushed down the cost of wind and solar electricity while ratcheting targets up to 60 percent of total generation by 2030;
- Clean vehicle and low-carbon fuel standards that reward lower-emissions alternatives to conventional vehicles and fuels
- Statewide targets for reducing greenhouse gas emissions, coupled with diverse programs—including a declining cap on emissions from major sources—that allow flexibility to help minimize the cost of reductions.

Although California is leading the way in energy conservation, implementation of the Gilroy 2040 General Plan will result in its share of energy use, even with State-required conservation measures and the general plan policies discussed in Section 3.21, Energy. However, because of the State-required energy conservation measures and the general plan policies, the city's contribution to the cumulative effect is not considerable.

4.2 SIGNIFICANT AND UNAVOIDABLE EFFECTS

CEQA Requirements

A significant adverse unavoidable environmental impact is a significant adverse impact that cannot be reduced to a less than significant level through the implementation of mitigation measures. In some cases, adequate mitigation for a significant unavoidable impact cannot be assured because implementation of that mitigation is outside the jurisdiction of the lead agency. CEQA Guidelines section 15093 requires that a lead agency make findings of overriding considerations for unavoidable significant adverse environmental impacts before approving a project.

CEQA Guidelines section 15093(a) requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a project against its unavoidable environmental risks when determining whether to approve the project. If the

specific economic, legal, social, technological, or other benefits of a project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable." CEQA Guidelines section 15093(b) states that when the lead agency approves a project which will result in the occurrence of significant effects which are identified in the final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the final EIR and/or other information in the record. The statement of overriding considerations shall be supported by substantial evidence in the record.

This EIR has identified several significant unavoidable environmental impacts, as listed and summarized below. A statement of overriding considerations would need to be adopted for all significant unavoidable impacts prior to project approval.

Summary of Significant Unavoidable Impacts

Impacts of implementing the Gilroy 2040 General Plan were evaluated in Section 3.0, Environmental Setting, Analysis, and Mitigation Measures, and the cumulative impacts of implementing the Gilroy 2040 General Plan were evaluated in Section 4.1, Cumulative Impacts. Many of the potentially significant and significant impacts would be avoided or reduced to a less than significant level with implementation of the policies contained in the Gilroy 2040 General Plan. Where Gilroy 2040 General Plan policies themselves would not reduce impacts to less than significant and mitigation measures are available that would further reduce impacts, those mitigation measures are identified. A number of project (implementation of the Gilroy 2040 General Plan) and cumulative effects of the Gilroy 2040 General Plan are potentially significant or significant. Feasible mitigation measures are provided for these impacts. However, even with implementation of mitigation measures, several of these impacts cannot be reduced to less than significant. Table 4.2-1, Significant and Unavoidable Impacts, summarizes the significant and unavoidable impacts of the Gilroy 2040 General Plan and defines whether the impact is based solely on implementation of the Gilroy 2040 General Plan itself ("individually" significant and unavoidable) and/or is a result of contribution of the Gilroy 2040 General Plan to cumulative impacts.

Table 4.2-1 Significant and Unavoidable Impacts

Topic	Impact	Level of Significance
Agriculture	Conversion of Important Farmland to non-agricultural use	Individually and Cumulatively Significant & Unavoidable
Air Quality	Increase in Operational Criteria Air Pollutant Emissions Resulting from an Increase in Vehicle Miles Traveled	Cumulatively Significant & Unavoidable
Greenhouse Gases	Conflict with an applicable plan, policy, or regulation for reducing GHG emissions	Interim Cumulatively Significant & Unavoidable
Mobility	Exceeds threshold for vehicle miles traveled (VMT)	Individually and Cumulatively Significant & Unavoidable

4.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Requirements

CEQA Guidelines section 15126.2(d) requires a discussion of significant and irreversible changes that would be caused by the project if implemented. The use of non-renewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse in the future unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement that provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with implementation of the general plan. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Gilroy 2040 General Plan Effects

The Gilroy 2040 General Plan would have the significant irreversible effects described below.

Use of Non-Renewable and Other Resources

Energy is the primary non-renewable resource whose consumption would be irreversible. New development fostered by the Gilroy 2040 General Plan would result in the direct consumption of oil, primarily in the form of refined fuels, indirect consumption of fossil fuels in the form of fossil-fuel generated electricity, direct consumption of non-renewable natural gas, all used in the construction and operation (including vehicle use) of new development. The Gilroy 2040 General Plan contains a range of policies designed to reduce vehicle trip numbers and vehicle trip lengths such that refined fuel use is reduced, as well as policies to improve energy efficiency such that consumption of electricity and natural gas is reduced.

At buildout, the sum of development that would be enabled by the Gilroy 2040 General Plan would also result in the irreversible consumption of a range of other natural resources that for all intents and purposes, are non-renewable due to the excessively long period of time needed to create them. These include mineral resources and natural building materials such as sand and gravel.

Commitment of Future Generations to Land Use Changes

The Gilroy 2040 General Plan could enable development of new urban uses on land within the Urban Growth Boundary that is now used primarily for agricultural production and grazing land. The investment and commitment of land to urban development is generally assumed to be economically and physically irreversible. Therefore, conversion of agricultural land would commit future generations to developed uses of the land.

4.4 GROWTH INDUCING IMPACTS

CEQA Requirements

CEQA Guidelines section 15126.2(d) requires an EIR to include a discussion of the growth-inducing impacts of a project. Growth inducement refers to the likelihood that a Gilroy 2040 General Plan will foster growth in the surrounding area, either directly or indirectly. Growth inducement can be the direct result of development proposals, or indirect, such as through the provision of services infrastructure or removal of growth barriers. The most common factor in fostering growth is the removal of obstacles to population or economic growth. Potential growth-inducing impacts must be discussed in relation to both the potential impacts on existing community service facilities (police or fire stations, utility infrastructure, etc.) and the way a project may encourage and facilitate other activities that could significantly affect the environment. It must not be assumed that growth in any area is necessarily beneficial, detrimental or of little significance to the environment.

Gilroy 2040 General Plan Effects

A general plan is by nature a growth-inducing project to the extent that a general plan is designed to address economic and/or population growth goals anticipated by the city. The proposed 2040 Gilroy General Plan includes the same Urban Growth Boundary that was created by the 2016 Urban Growth Boundary Initiative. Therefore, growth associated with the proposed 2040 Gilroy General Plan would not occur beyond the existing Urban Growth Boundary. The Urban Service Area Boundary and the Urban Growth Boundary will serve as the primary growth management policy mechanism in the 2040 General Plan.

As described in Table 2.3-4, General Plan Land Use Designation Changes in Section 2.0, Project Description, several changes to existing land use designations are proposed. These amended designations are not dramatic as far as land use is concerned and included such changes as Neighborhood District to Neighborhood District High; Industrial Park and Professional Office to Employment Center; General Industrial to General Services Commercial; etc.

New economic development and new housing development would occur within the Urban Growth Boundary in response to the city's anticipation that its population will grow from 55,928 (January 1, 2019) to 75,684 at buildout of the general plan.

This estimate is seven percent greater than ABAG estimates of the city's growth to 70,735 residents in 2040. However, the city's projections are based on the number of residential projects already in the development process and interviews with residential developers about the housing market and their development plans, and a trend of increased share of the countywide population.

At buildout, development associated with the Gilroy 2040 General Plan would result in 6,477 additional housing units and would generate 21,434 new jobs (refer to Table 2.2-1 in

Section 2.2). The increase in economic activity would also result in secondary employment growth in the city and adjacent areas, and the temporary jobs generated by construction activities.

The Gilroy 2040 General Plan provides policy guidance for the provision of services to accommodate new growth. The growth enabled by the 2040 Gilroy General Plan would occur within the Urban Growth Boundary and would require extensions of roadway, water, recycled water infrastructure, and wastewater collection and treatment facilities to serve existing populations more efficiently and accommodate planned growth. The significant impacts resulting from the growth envisioned by the Gilroy 2040 General Plan are described in Section 3.0, Environmental Setting, Analysis, and Mitigation Measures. Many of the significant impacts would be avoided or lessened with the implementation of proposed 2040 Gilroy General Plan policies, including policies related to growth management, and by implementation of mitigation measures. Therefore, by design, the proposed 2040 Gilroy General Plan reduces most of the impacts of the growth it could otherwise have induced. Those impacts that cannot be reduced to a less than significant level are described in Section 4.2, Significant and Unavoidable Effects.

The Gilroy 2040 General Plan includes a number of goals, policies, and programs to manage growth. These are listed below. The full policy language is included in Appendix C.

Goal LU 1: Protect and enhance Gilroy's quality of life and unique identity while continuing to grow and change.

- LU 1.1 Pattern of Development
- LU 1.2 Residential Growth
- LU 1.3 Phased Commercial Growth (within and outside Urban Service Area)
- LU 1.5 Uses East of U.S. 101
- LU 1.11 Contiguous Development
- LU 1.12 Interagency Coordination for Growth Management
- LU 1.16 Urban Growth Boundary Implementation

Goal LU 2: Ensure the orderly development of large areas of Gilroy through specific plans.

- LU 2.1 Specific Plans
- LU 2.2 New or Amended Specific Plans
- LU 2.3 Specific Plans in Non-Residential Areas

- LU 2.4 Downtown
- LU 2.5 Hecker Pass
- LU 2.6 Glen Loma Ranch
- LU 2.7 Specific Plan Preparation

Summary

Implementation of the 2040 Gilroy General Plan is designed to address economic and/or population growth goals anticipated by the city. Implementation of these Gilroy 2040 General Plan policies and implementation programs would ensure that growth does not proceed unchecked or outside of the Gilroy Urban Growth Boundary.

4.5 ALTERNATIVES

CEQA Requirements

CEQA Guidelines section 15126.6(a) requires a description of a range of reasonable alternatives to the Gilroy 2040 General Plan ("proposed General Plan"), or to the location of the project, which could feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. It also requires an evaluation of the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project, but must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation.

CEQA Guidelines section 15126.6(b) further requires that the discussion of alternatives focus on those alternatives capable of eliminating any significant adverse environmental impacts or reducing them to a level of insignificance, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly. The EIR must present enough information about each alternative to allow meaningful evaluation, analysis and comparison with the proposed General Plan. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.

CEQA Guidelines section 15126.6(c) states in part that an EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the determination. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts.

Project Objectives and Significant Effects

As discussed above, alternatives must be able to meet most of the basic objectives of the project and avoid or substantially lessen any of the significant effects of the project. The project objectives are presented in Section 2.4, Statement of Project Objectives, and significant unavoidable effects are presented in Section 4.2, Significant and Unavoidable Effects.

Alternatives Considered

The following alternatives to the project are considered:

1. Alternative 1: No Project-Existing General Plan;
2. Alternative 2: Reduced Urban Growth Boundary; and
3. Alternative 3: Reduced Residential Densities.

Each of these alternatives is described below, followed by an analysis of how each alternative may reduce impacts associated with the proposed General Plan.

Alternative 1: No Project Alternative and Description

CEQA Guidelines section 15126.6 (e) requires the "No Project" alternative be evaluated along with its impacts. The "No Project" alternative analysis must discuss the existing conditions, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

No Project Alternative Description - Existing General Plan

Under the existing General Plan, the proposed General Plan would not be adopted, and future development within the Urban Growth Boundary would continue to be subject to existing policies, regulations, development standards, as per the city of Gilroy's adopted 2020 General Plan, including implementation of the Urban Growth Boundary Initiative. Overall, the existing General Plan (hereinafter referred to as the "existing General Plan") would involve slightly less residential development and slightly more non-residential development than the proposed General Plan. See Table 2.3-1 in Section 2.0, Project Description. The existing General Plan land use map compared to the land use map for the proposed General Plan designates the same amount of land within the Urban Growth Boundary for development.

A General Plan land use map for the existing General Plan is presented in Figure 2.1-2 Existing General Plan Land Use Map from Section 2.0, Project Description.

No Project (Current General Plan) Alternative Effects

The environmental effects of the proposed General Plan compared to the environmental effects of the existing General Plan are discussed by topic area below.

Aesthetics

The proposed General Plan would have less-than-significant impacts to aesthetics and scenic resources. Under the existing General Plan, new development would continue throughout the same Urban Growth Boundary under the existing 2020 General Plan. Similar to the proposed General Plan, the existing General Plan allows for new development contiguous to urban uses and major roadways. Both scenarios have the potential to affect scenic vistas and Gilroy's existing visual character.

Development under both the existing General Plan and the proposed General Plan would be subject to applicable policies and design review procedures intended to promote high-quality development and protect scenic resources. Although continued implementation of the existing General Plan would also result in less-than-significant aesthetic impacts, it does not include proposed General Plan policies that would help to reduce significant aesthetic impacts under the proposed General Plan.

The proposed General Plan includes several new policies that promote specific design considerations to improve the visual character of new development and reduce potential aesthetics impacts associated with new development. These new policies include, but are not limited to, Policy LU 3.10, which provides hillsides and ridgelines with additional consideration and protection from development due to their prominence and visibility; Policy LU 3.11, which requires noise attenuation features and sound walls for residential uses to be designed with materials that are visually compatible with the scenic attributes of their surroundings; and Policy LU 8.4, which encourages public and private tree preservation, in particular, the heritage trees located on the south side of Hecker Pass Highway (State Route 152) within the Hecker Pass Specific Plan Area. Other new policies which address aesthetics impacts include the following:

- LU 1.7 Access to Open Space;
- LU 4.2 High Quality Design;
- NCR 1.3 Riparian Setbacks;
- NCR 1.10 Light Pollution; and
- NCR 1.11 Healthy Urban Forest.

Due to these new policies, new development under the existing General Plan would not be held to the same policy considerations as development under the proposed General Plan. Overall, this Alternative, the existing General Plan, would result in less than significant aesthetic impacts; however, the impacts would be greater in comparison to the proposed General Plan. Therefore, the proposed General Plan would be environmentally superior to this alternative.

Agricultural Resources

The proposed General Plan would result in the significant and unavoidable impact of converting 1,119 acres of important farmland (prime farmland and farmland of statewide importance) to non-agricultural uses. The existing General Plan, with the same Urban Growth Boundary, would result in the same impact. Therefore, this alternative would have the same impacts as would the proposed General Plan with regard to agricultural resources.

Air Quality

As presented in Section 3.3 Air Quality, the proposed General Plan would be consistent with the air district's Clean Air Plan, with implementation of mitigation measures adding policies to the General Plan that would require the use of low emissions construction equipment for public and private projects, and implement the air district's dust control measures during project construction. The proposed General Plan would also result in an increase in operational criteria air pollutant emissions resulting from an increase in vehicle miles traveled. This impact would be significant and unavoidable.

Overall, the existing General Plan and the proposed General Plan would result in similar air quality impacts due to the similar levels of growth, types of uses, and land use patterns. Significant impacts that would be mitigated to less-than-significant levels under the proposed General Plan could also be mitigated under the existing General Plan. However, the continued implementation of the existing General Plan would not result in the adoption of several proposed policies intended to minimize air quality impacts. These new policies include, but are not limited to, Policy LU 7.8, which encourages higher-density residential uses and mixed-use developments in proximity to transit services including the Caltrain station and multi-modal transit center; Policy M 1.7, which calls for a reduction in vehicle miles traveled and greenhouse gas emissions by developing a transportation network that makes it convenient to use transit, ride a bicycle, walk, or use other non-automobile modes of transportation; and Policy PFS 2.4, which requires the use of alternative energy sources in new services provided by city franchisees, whenever practicable, thereby reducing emissions that affect air quality. Other new policies which address air quality impacts include the following:

- M 5.3 Promote Non-Auto Modes of Transportation;
- EP 1.1 Local Hiring;
- NCR 3.1 Energy Use Data and Analysis;
- NCR 3.2 Retrofit Financing;
- NCR 3.3 Shade Tree Program;
- NCR 3.4 Solar Development;
- NCR 3.8 Community-Wide Alternative Fuel Vehicles;
- NCR 3.12 Existing Municipal Building Energy Retrofit;

- NCR 3.15 Maximum Greenhouse Gas Emission Reductions; and
- EJ 3.1 Air Purification Home Retrofit Program.

Due to these new policies, new development under the existing General Plan would not be held to the same policy considerations as development under the proposed General Plan. The proposed General Plan and this alternative, the existing General Plan would result in similar impacts; however, the impacts would be greater with the existing General Plan in comparison to the proposed General Plan. Therefore, the proposed General Plan would be superior to this alternative.

Biological Resources

As presented in Section 3.4 Biological Resources, the proposed General Plan would result in three, less-than-significant impacts and two, significant but mitigable impacts related to biological resources. Under the existing General Plan, new development would continue under existing General Plan policies and programs. As with the proposed General Plan, future development and land use activities under the existing General Plan would occur primarily in urbanized areas where biological resources are generally limited. The potential for special-status species, sensitive natural communities, wetlands, riparian habitat, or wildlife corridors in developed areas is generally less likely in comparison to undeveloped lands with natural habitat that contain essential habitat characteristics for the range of species known to occur within the region. While the existing General Plan and the proposed General Plan would have similar areas of potential impact to biological resources, the existing General Plan does not include several new proposed General Plan policies that are intended to protect biological resources. These new policies include, but are not limited to, Policy NCR 1.1, which requires future development to comply with the Santa Clara Valley Habitat Plan permit requirements and fees for special fee zones along with project-specific conditions to avoid and/or minimize impacts to natural communities and riparian areas; Policy NCR 1.3, which requires riparian setback areas in new development, consistent with the requirements of the Habitat Plan and other city regulations; and Policy NCR 1.8, which calls for protecting native nesting birds, which are protected by the Federal Migratory Bird Treaty Act and the California Fish and Game Code. Other new policies which address biological resource impacts include the following:

- LU 8.4 Tree Preservation;
- NCR 1.9 Native Tree Protection;
- NCR 1.10 Light Pollution; and
- NCR 1.12 Invasive Species.

Due to these new policies, new development under the existing General Plan would not be held to the same policy considerations as development under the proposed General Plan. Overall, this Alternative, the existing General Plan, would result in less than significant

biological resources impacts; however, the impacts would be greater in comparison to the proposed General Plan. The proposed General Plan would be superior to this alternative.

Cultural Resources

As presented in Section 3.5 Cultural Resources, the proposed General Plan would result in three, significant but mitigable impacts related to cultural resources. Under the existing General Plan, new development would occur throughout the Urban Growth Boundary under the policies and programs of the existing General Plan. As under the proposed General Plan, development allowed by the existing General Plan would be subject to existing local, state, and federal laws and procedures to protect cultural resources along with the mitigation measures identified in Section 3.5, Cultural Resources. Compliance with existing regulations described in Section 3.5 would ensure less-than-significant impacts under both the proposed General Plan and the existing General Plan. However, the existing General Plan would not include adoption of new proposed General Plan policies that would provide additional protection of cultural resources. These new policies include Policy NCR 5.1, which provides protection of potentially historically significant resources that are 45 years or older by requiring a historic report or other substantial evidence that a structure is not historically significant; Policies NCR 5.2 and NCR 5.5, which help to ensure known historical resources are identified prior to development by requiring the development of and regular updates to an inventory of cultural resources; and Policy NCR 5.10, which requires evaluating alternatives to demolition prior to approving the demolition of historically significant buildings.

Due to these new policies, new development under the existing General Plan would not be held to the same policy considerations as development under the proposed General Plan. Overall, this Alternative, the existing General Plan, would result in less than significant cultural resources impacts; however, the impacts would be greater in comparison to the proposed General Plan. The proposed General Plan would be superior to this alternative.

Geologic Hazards

As presented in Section 3.6 Geologic Hazards, the proposed General Plan would have less-than-significant impacts associated with geologic hazards. These hazards would apply similarly to the both the existing and proposed General Plan. The proposed General Plan includes a number of policies relevant to these potential geologic hazards that are not included in the existing General Plan. These new or modified policies include PH 2.9, which strives to seismically upgrade existing city facilities that do not meet current building code standards; PH 2.2, which ensures proper soils and geologic site investigation and appropriate mitigation for development proposals in areas of unconsolidated fill; and PH 2.3, which ensures that the design and engineering of new roads, bridges and utility lines (public and private) that cross active or potentially active fault traces, streams, or other areas of high seismic risk are resilient to these potential hazards.

Due to these new or modified policies, new development under the existing General Plan would not be held to the same policy considerations as development under the proposed General Plan. Overall, this Alternative, the existing General Plan, would result in less than significant impacts related to geologic hazards; however, the impacts would be greater in comparison to the proposed General Plan. The proposed General Plan would be superior to this alternative.

Greenhouse Gas Emissions

As presented in Section 3.7 Greenhouse Gas Emission, the proposed General Plan would result in two, interim significant and unavoidable impacts associated with GHG emissions. The interim significant impact would occur until the city adopts and implements a Climate Action Plan (CAP). The existing General Plan would result in a similar level of growth in comparison to the proposed General Plan. However, as with the proposed General Plan, the existing General Plan does not require adoption and implementation of a CAP. Therefore, this alternative would not avoid this interim significant and unavoidable impact. Without adoption of a qualified GHG reduction plan, the existing General Plan impact would be significant and unavoidable.

Due to the requirement to adopt and implement a CAP, new development under the existing General Plan would not be held to the same level of mitigation as development under the proposed General Plan. Overall, this Alternative, the existing General Plan, would result significant and unavoidable impacts, which would be greater in comparison to the proposed General Plan. The proposed General Plan would be superior to this alternative.

Hazardous Materials and Wildfire Hazards

As presented in Section 3.8 Hazardous Materials and Wildfire Hazards, the proposed General Plan would result in five, less-than-significant impacts associated with hazardous materials and wildfire hazards. Under both the existing and proposed General Plan, new development could occur on properties that possibly are contaminated and inactive, undergoing evaluation, and/or undergoing corrective action. These activities are subject to a variety of federal, state, and local laws, policies, and regulations. In addition, the proposed General Plan includes policies that would further ensure that new development would not create a significant hazard through routine transport, use, or handling of hazardous materials. These new or modified policies include Policy PH 1.16, which considers the feasibility of the city creating a development tracking system that would track development in hazard prone areas; Policy PH 2.7, which requires the inspection of buildings to identify, abate, or mitigate existing hazardous structures; and Policy 5.7, which requires review applications for commercial and industrial uses that involve the use, storage, and transport of hazardous materials to determine the need for buffer zones or setbacks. Other new or modified policies which address impacts related to hazardous materials include the following:

- PH 5.1 Hazardous Materials and Waste Inspections;
- PH 5.2 Hazardous Waste Reduction;

- PH 5.3 Industrial Wastewater Pretreatment Program;
- PH 5.5 Household Hazardous Waste Collection Facility Use;
- PH 5.6 Hazardous Soils Conditions Clean-up; and
- PH 5.8 Sensitive Uses.

In addition, both the existing and proposed General Plan would include land uses near or in areas of high fire hazards. However, the existing General Plan would not include adoption of policies and programs that would reduce the impact of wildland fire to a less-than-significant level as under the proposed General Plan. These new or modified policies include Policy PH 4.1, which ensures development in the Gilroy wildland/urban interface area conforms to the most current standards for wildfire protection; Policy PH 4.4, which requires development in hillside areas to comply with the fire hazard policies and codes adopted into the Gilroy Fire Code for wildland/urban interface areas; and Policy 4.3, which requires "Class A" fire-rated roofs on all new construction or re-roofing in certain areas of the city that are near wildland fire hazard areas. Other new or modified policies related to wildland fire hazards include the following:

- PH 4.5 Fire Safety Education and Training;
- PFS 10.1 Standards of Service;
- PFS 10.3 Development Review;
- PFS 10.4 Optimal Siting;
- PFS 10.5 New Development;
- PFS 10.6 Sprinklers;
- PFS 10.7 Inspections;
- PFS 10.8 Fire Access Design and Building Materials; and
- PFS 10.9 Fire Safety Education.

Due to these new or modified policies, new development under the existing General Plan would not be held to the same policy considerations as development under the proposed General Plan. Overall, this Alternative, the existing General Plan, would result in less than significant impacts related to hazardous materials and wildfire hazards; however, the impacts would be greater in comparison to the proposed General Plan. The proposed General Plan would be superior to this alternative.

Storm Water and Flooding

As presented in Section 3.9, Storm Water and Flooding, all flooding and water quality impacts under the proposed General Plan would be less than significant. Construction and operation of development projects allowed by either the existing or proposed General Plan would have the potential to impact water quality and cause erosion and siltation. However, development under either scenario would be required to comply with existing regulations and guidance documents that would minimize these impacts. The proposed General Plan includes policies that would ensure potential impacts to water quality would not occur. These policies would not be adopted under the existing General Plan. These new or modified policies include Policy NCR 4.8, which requires new development to protect the quality of water resources and natural drainage systems through site design, source controls, runoff reduction measures, best management practices (BMPs), and Low Impact Development (LID); Policy PFS 3.5, which ensures the provision of healthy, safe water for all users in Gilroy through facilities, policies, programs, and regulations; and Policy PFS 5.3, which requires on-site stormwater management system (i.e. "green infrastructure") design and Low Impact Development (LID) techniques per the city's adopted stormwater requirements. Other new or modified policies which address impacts related to water quality include the following:

- NCR 4.1 Consistent Standards;
- NCR 4.2 Pollution Prevention;
- NCR 4.4 Abandoned and Unused Wells;
- NCR 4.5 Water Conservation and Reclamation;
- NCR 4.7 Inter-Agency Coordination;
- NCR 4.9 Native and Drought-Tolerant Landscaping;
- PFS 5.4 Stormwater Inspection; and
- PFS 5.5 Rainwater Harvesting.

Implementation of the proposed General Plan could also result in significant impacts from exposing people to flood risks and from impeding flood flows if future development within the boundaries of 100-year flood hazard zones is not managed consistent with regulations and policies designed to protect against such hazards. Unlike the proposed General Plan, the existing General Plan does not include goals, policies, and programs identified in the proposed General Plan that would reduce potential flooding hazards to a less-than-significant level. These new or modified policies include Policy PH 3.1, which ensures all new development on publicly and privately owned land within flood prone, mudslide, or flood-related erosion areas incorporate measures to reduce these hazards to an acceptable level of risk; Policy PH 3.4, which encourages the coordination of the city with Valley Water

to design flood control measures and drainage channel improvements to serve multiple uses; and Policy PH 3.8, which encourages coordination with the Federal Emergency Management Agency (FEMA) to ensure that Federal Insurance Rate Maps correctly depict flood hazards in Gilroy.

In addition, failure of nearby dams could result in flooding parts of Gilroy and the surrounding area under both scenarios. Since the risk of dam failure is considered low, the impact would be considered less-than-significant under either scenario.

Overall, neither the proposed General Plan nor the existing General Plan would result in significant impacts associated with storm water and flooding. Due to the new or modified policies identified above, new development under the existing General Plan would not be held to the same policy considerations as development under the proposed General Plan. Overall, this Alternative, the existing General Plan, would result in less than significant impacts related to storm water and flooding; however, the impacts would be greater in comparison to the proposed General Plan. The proposed General Plan would be superior to this alternative.

Groundwater

As presented in Section 3.10 Groundwater, the depletion of groundwater supplies and interference with groundwater recharge are considered less-than-significant impacts under the proposed General Plan. While development allowed under either the proposed General Plan or existing General Plan could lead to an increased demand for water, there is a sufficient supply of water through 2040 even in the event of multiple dry years.

The proposed General Plan includes policies that assist to ensure an adequate water supply. These new or modified polices include Policy PFS 4.4, which provides treatment and disposal facilities that protect groundwater and other natural resources from contamination; Policy NCR 4.2, which prohibits the development of waste processing facilities and industries using toxic chemicals in areas where pollutants may come in contact with groundwater; and Policy PH 3.4, which encourages coordination with Valley Water to design flood control measures and drainage channel improvements to serve multiple uses, including groundwater recharge. Due to the new or modified policies, new development under the existing General Plan would not be held to the same policy considerations as development under the proposed General Plan. Overall, this Alternative, the existing General Plan, would result in less than significant impacts related to groundwater; however, the impacts would be greater in comparison to the proposed General Plan. The proposed General Plan would be superior to this alternative.

Mineral Resources

No impacts were identified for mineral resources under the proposed General Plan. The existing General Plan would not change this conclusion as the existing General Plan area does not include areas with mineral resource value.

Noise

As presented in Section 3.12 Noise, the proposed General Plan would result in less-than-significant noise impacts. Under the proposed General Plan, new development would avoid significant impacts associated with exposure to excessive noise levels by conforming with requirements for acoustic analysis under the proposed General Plan, as well as by achieving subsequent compliance with interior and exterior noise standards through application of any necessary special construction or noise insulation techniques.

Under the proposed General Plan, policies would also provide guidelines for noise compatibility levels. These policies, along with adherence to existing regulations and proposed mitigation measures, would ensure that land use and development decisions consider and seek to prevent potential noise impacts under the proposed General Plan. These new or modified policies include Policy PH 6.4, which would require proposed development projects in areas where future residents or visitors may be exposed to major noise sources to conduct an environmental noise analysis; Policy PH 6.8, which requires proposed new or expanding commercial and industrial development consider potential noise impacts on nearby residential uses; and Policy PH 6.9, which requires the city to consider potential noise impacts when evaluating proposals for transportation projects, including road, freeway, and transit projects, and incorporate mitigation measures. Other new or modified polices related to noise include the following:

- LU 3.11 Noise Mitigation Design;
- LU 4.3 Noise Mitigation Design;
- PFS 1.6 Neighborhood Compatibility;
- PH 6.6 Setbacks and Earth Berms;
- PH 6.7 Residential Noise Standards;
- PH 6.10 Construction Noise; and
- PH 6.11 Construction and Maintenance Noise Limits.

The existing General Plan does not include these new policies but would rely on existing 2020 General Plan noise policies, standards and guidelines along with existing Noise Ordinance standards for exterior and interior noise. These existing policies and standards would also reduce noise impacts to a less-than-significant level. However, due to the new or modified policies identified above, new development under the existing General Plan would not be held to the same policy considerations as development under the proposed General Plan. Overall, this Alternative, the existing General Plan, would result in less-than-significant impacts related to noise; however, the impacts would be greater in comparison to the proposed General Plan.

Under both the proposed General Plan and the existing General Plan, vibration generated by construction equipment would have the potential to be substantial. Overall, vibration

impacts under both the proposed General Plan and the existing General Plan related to construction would be short-term, temporary, and generally restricted to the areas in the immediate vicinity of active construction equipment. Policies under both the proposed General Plan and existing General Plan, address vibration impacts, and would serve to reduce vibration impacts from construction. However, due to the new or modified policies related to vibration, new development under the existing General Plan would not be held to the same policy considerations as development under the proposed General Plan. New or modified policies related to vibration include Policy PH 6.12, which requires a vibration impact assessment for proposed development projects in which heavy-duty construction equipment would be used; and Policy PH 6.13, which requires proposed residential and commercial projects located within 200 feet of existing major freeways and railroad lines (e.g. freight, Amtrak, and Caltrain) to conduct a ground vibration and vibration noise evaluation. Overall, this Alternative, the existing General Plan, would result in less-than-significant impacts related to vibration; however, the impacts would be greater in comparison to the proposed General Plan. The proposed General Plan would be superior to this alternative.

Police Protection Facilities

No impacts were identified for police protection facilities under the proposed General Plan. The existing General Plan would not change this conclusion as the existing police protection facilities are adequate for service levels under the existing General Plan.

Fire Protection Facilities

As identified in section 3.14 Fire Protection Facilities, implementation of the proposed General Plan goals, policies, and programs would reduce environmental impacts associated with construction of new or expanded fire protection facilities to a less-than-significant level. The existing General Plan would have a similar development capacity as the proposed General Plan and would not necessitate expanded fire services and facilities beyond that planned in the existing Fire Master Plan. Therefore, the existing General Plan would be similar to the proposed General Plan as relates to fire protection facilities.

School Facilities

As identified in section 3.15 School Facilities, implementation of the proposed General Plan goals, policies, and programs would reduce potential impacts to school services and facilities to a less-than-significant level. The existing General Plan would have a similar development capacity as the proposed General Plan and would not necessitate expanded school services facilities beyond the current service level. Therefore, the existing General Plan would be similar to the Proposed General Plan as relates to school facilities.

Park and Recreation Facilities

As presented in Section 3.16, Park and Recreation Facilities, implementation of the proposed General Plan goals, policies, and programs would reduce potential impacts to park and recreation facilities to a less-than-significant level. The existing General Plan would have a

similar development capacity as the proposed General Plan and would generally require the same acreage of new parks and recreation facilities. Therefore, the existing General Plan would be similar to the proposed General Plan as relates to park and recreation facilities.

Transportation and Mobility

As presented in Section 3.17 Transportation and Mobility, the proposed General Plan would have one significant and unavoidable impact related to the effects of Vehicle Miles Travelled (VMT). With implementation of the proposed mitigation measure in addition to implementation of proposed General Plan goals, policies and programs the effects of VMT would be reduced but not to a less than significant level. Therefore, the impact of VMT resulting from implementation of the proposed General Plan would be significant and unavoidable.

In comparison to the proposed General Plan, the existing General Plan would result in slightly less residential growth and more non-residential growth. Although the land use mix for the proposed General Plan and existing General Plan differ, the existing General Plan would generate a similar amount of traffic as the proposed General Plan.

The proposed General Plan includes new and/or modified policies that assist with reducing VMT. These new or modified polices include Policy M1.5, which directs the city to develop a transportation network connecting users of all transportation modes to destinations in Gilroy; M 1.6, which directs the design of streets and transportation facilities to be safe and accessible to people of all abilities, including those with limited mobility; M 1.7, which will reduce vehicle miles traveled and greenhouse gas emissions by developing a transportation network that makes it convenient to use transit, ride a bicycle, walk, or use other non-automobile modes of transportation; M 1.8 Street Landscaping, which requires landscaping as a part of all new street design, including street trees, landscaped medians and buffers, and high-quality street furniture; M 1.12, which encourages existing and proposed development to incorporate TDM measures such as car-sharing, transit passes, and unbundling of parking where such measures will result in a reduction in vehicle miles traveled, reduction of required amount of parking or an increase in the use of alternate transportation modes; and several policies addressing “complete streets”, which provide complete streets that balance the diverse needs of users of the public right-of-way.

Due to the new or modified policies, new development under the existing General Plan would not be held to the same policy considerations as development under the proposed General Plan. Overall, this Alternative, the existing General Plan, similar to the proposed General Plan, would result in significant and unavoidable VMT impacts; however, the impacts would be greater in comparison to the proposed General Plan. The proposed General Plan would be superior to this alternative.

Water Service

As presented in Section 3.18, Water Service, implementation of the proposed General Plan may require new or expanded water facilities to pump and distribute water to new and

existing development within the Urban Growth Boundary, but not beyond those identified in the 2004 Water System Master Plan, as the planned future growth area was significantly reduced by the passage of the 2016 Urban Growth Boundary Initiative. No environmental impact was identified as a result of the proposed General Plan. The existing General Plan, with the same Urban Growth Boundary, has similar development potential as the proposed General Plan and would therefore have enough water service capacity to serve existing and anticipated development under the existing General Plan. Therefore, the existing General Plan would have a similar impact to water service as the proposed General Plan.

Wastewater Services

As presented in Section 3.19, Wastewater Service, implementation of the proposed General Plan goals, policies, and programs would reduce potential impacts to wastewater service to a less-than-significant level. The existing General Plan would have a similar development capacity as the proposed General Plan and would not necessitate facility expansion that would result in significant environmental effects. Therefore, the existing General Plan would be similar to the proposed General Plan as relates to wastewater service.

Solid Waste Facilities

As presented in Section 3.20, Solid Waste Facilities, implementation of the proposed General Plan goals, policies, and programs would reduce potential impacts to solid waste facilities to a less-than-significant level. The existing General Plan would have a similar development capacity as the proposed General Plan and would not necessitate expanded solid waste facilities beyond the current service level. Therefore, the existing General Plan would be similar to the proposed General Plan as relates to solid waste facilities.

Energy Conservation

As presented in Section 3.21, Energy Conservation, conformance to applicable state regulations and legislation and implementation of the proposed General Plan goals, policies, and programs would reduce the proposed General Plan's potential impacts to energy resources to a less-than-significant level. In addition, conformance to applicable state regulations and legislation and implementation of the 2040 General Plan goals, policies, and programs would ensure that buildout of the proposed General Plan would not conflict with a state plan for renewable energy or energy efficiency.

The proposed General Plan includes new and/or modified policies that assist with reducing energy resources. These new or modified polices include Policy NCR 3.1, which increases building owner, tenant, and operator knowledge about how, when, and where building energy is used; NCR 3-2, which promotes existing support and development of new private financing options for building retrofits and renewable energy development; NCR 3-3, which increases community-wide use of shade trees to decrease energy use associated with building cooling; NCR 3-4, which encourages voluntary community-wide solar photovoltaic development through regulatory barrier reduction and public outreach campaigns; as well as other NCR policies addressing bicycle infrastructure expansion, transportation demand

management, community-wide alternative fuel vehicles, food scrap and yard waste diversion, water use reduction, healthy urban forests, existing municipal building energy retrofit, zero waste, and to pursue funding through new development as a means to minimize taxpayer funding.

Due to the new or modified policies, new development under the existing General Plan would not be held to the same policy considerations as development under the proposed General Plan. Overall, this Alternative, the existing General Plan, would result in less than significant energy impacts; however, the impacts would be greater in comparison to the proposed General Plan. The proposed General Plan would be superior to this alternative.

Alternative 2: Reduced Urban Growth Boundary

Alternative Description

To reduce several of the significant impacts and the significant and unavoidable impacts of the proposed General Plan, a Reduced Urban Growth Boundary Alternative was developed. This alternative examines a scenario where the Urban Growth Boundary is reduced to the existing city limits. Figure 4.5-1, Reduced Urban Growth Boundary Alternative, highlights the areas at the north, east, and south of the city where this alternative would reduce the total developable acreage. As reflected on the table presented on Figure 4.5-1, the total acreage that would be reduced as a result of the Reduced Urban Growth Boundary Alternative is 1,177 acres. This alternative assumes that growth within the city limits would occur in the densities proposed by the new General Plan. Therefore, this alternative results in less land available for development and correspondingly less residential and non-residential development.

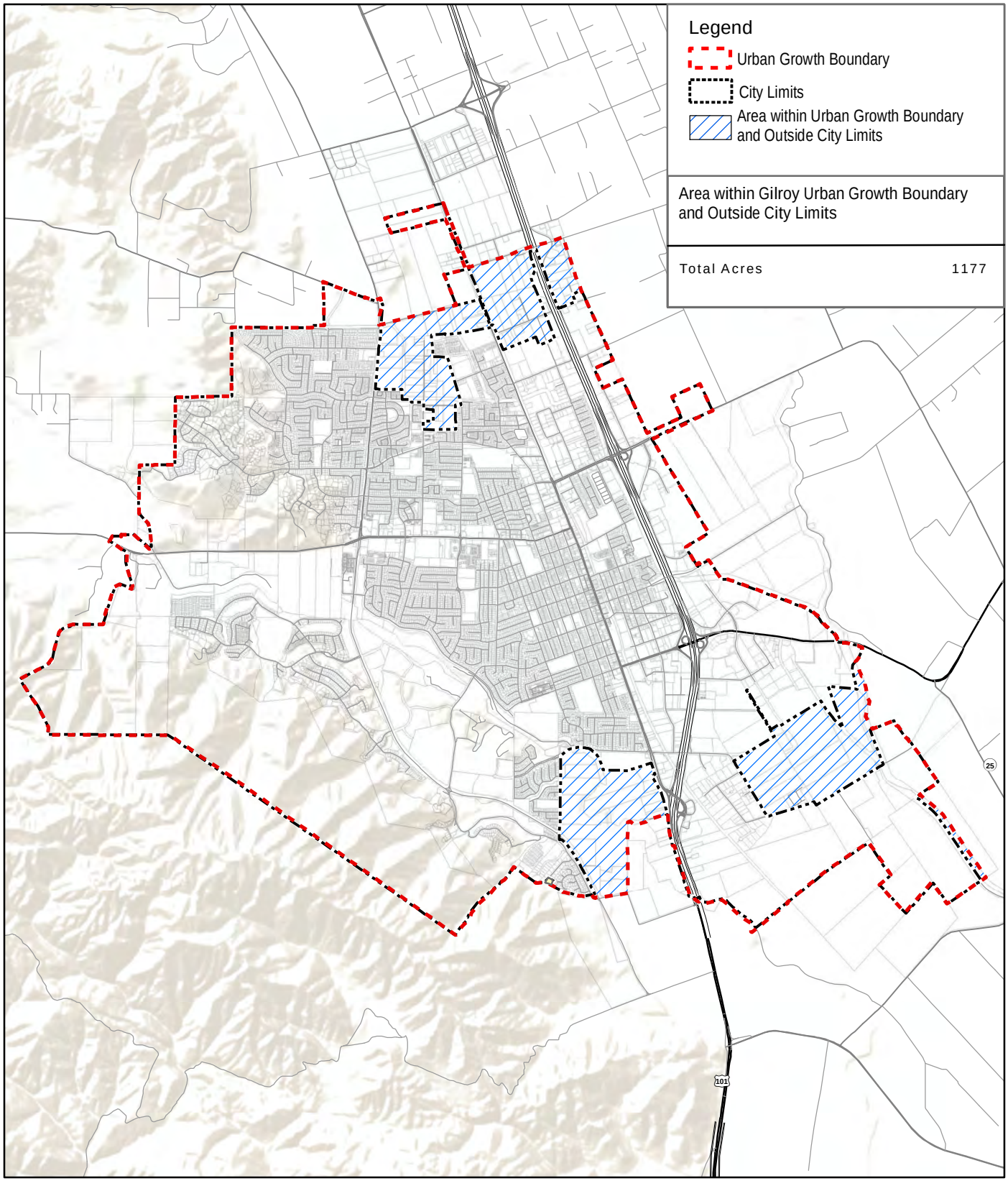
Reduced Urban Growth Boundary Alternative Effects

The environmental effects of the Reduced Urban Growth Boundary Alternative with reference to the proposed General Plan are summarized by topic area below.

Aesthetics

The proposed General Plan would have less-than-significant impacts to aesthetics and scenic resources. Under the Reduced Urban Growth Boundary Alternative, new development would occur throughout the existing city limits only, under the policies of the proposed General Plan and a modified land use map that preserves more lands in the sphere-of-influence for rural County uses. As under the proposed General Plan, under the Reduced Urban Growth Boundary Alternative much of the new development allowed under the proposed

General Plan would be on lands that are already developed, or on lands contiguous to urban uses and major roadways. However, as under the proposed General Plan, some future development allowed by the Reduced Urban Growth Boundary Alternative would have the potential to partially or fully block scenic vistas or degrade the existing visual character. In addition, as under the proposed General Plan, new development throughout



Source: Mintier Harnish 2019, California Department of Conservation 2016

Figure 4.5-1

Reduced Urban Growth Boundary Alternative

Gilroy 2040 General Plan EIR

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the proposed Urban Growth Boundary could create new sources of light and glare. Development allowed by this alternative limited to the existing city limits would be subject to the same maximum building heights, densities, and intensities, as under the proposed General Plan. As under the proposed General Plan, new development under the Reduced Urban Growth Boundary Alternative would be subject to proposed General Plan goals, policies, programs and design review procedures intended to promote high-quality development, protect scenic resources and reduce the effects of light and glare.

Neither the proposed General Plan nor the Reduced Urban Growth Boundary Alternative would result in significant aesthetics impacts. However, the Reduced Urban Growth Boundary Alternative would result in even less developed land over time and the aesthetic impacts would be reduced in comparison to the proposed General Plan. Therefore, the Reduced Urban Growth Boundary Alternative would be superior to the proposed General Plan associated with aesthetics impacts.

Agricultural Resources

As presented in Section 3.2, Agricultural Resources, the proposed General Plan would have one less-than-significant impact and one significant and unavoidable impact on agricultural resources. The Reduced Urban Growth Boundary Alternative provides the opportunity to reduce the significant and unavoidable impact of the loss of prime farmland under the proposed General Plan. In order to evaluate this alternative, the total acreage of Prime Farmland and Farmland of Statewide Importance within the Gilroy Urban Growth Boundary and outside of city limits was calculated. As reflected in Figure 4.5-2, Farmland within the Gilroy Urban Growth Boundary and Outside City Limits and Table 4.5-1 below, the total acreage for these two farmland categories is 592 acres.

Table 4.5-1 Important Farmland within Gilroy Urban Growth Boundary and Outside City Limits

Farmland Category	Acreage
Prime Farmland	473.5
Farmland of Statewide Importance	118.5
Total	592.0
Proposed General Plan Important Farmland	1,165.0
Difference between Alternative 2 & Proposed General Plan Important Farmland Acreage (Additional Farmland Preserved)	573.0

Source: California Department of Conservation 2016; EMC Planning Group 2020
Note: Acreage totals are approximate

When compared to the total acreage of all Important Farmland found within the Gilroy Urban Growth Boundary (see Figure 3.2-1, Important Farmlands Map, found in Section 3.2 "Agricultural Resources") as reflected in the proposed General Plan map, a total of 573 acres of Prime Farmland and Farmland of Statewide Importance would be preserved under the

Reduced Urban Growth Boundary Alternative. Overall, this Reduce Urban Growth Boundary Alternative would result in significant and unavoidable agricultural resources impacts; however, the impacts would be reduced by one-half, and therefore, smaller in comparison to the proposed General Plan. The Reduced Urban Growth Boundary Alternative would be superior to the proposed General Plan associated with agricultural resources impacts.

Air Quality

As presented in Section 3.3 Air Quality, the proposed General Plan would be consistent with the air district's Clean Air Plan, with implementation of mitigation measures adding policies to the General Plan that would require the use of low emissions construction equipment for public and private projects, and implement the air district's dust control measures during project construction. The proposed General Plan would also result in an increase in operational criteria air pollutant emissions resulting from an increase in vehicle miles traveled. This impact would be significant and unavoidable.

Overall, the Reduced Urban Growth Boundary Alternative would result in reduced air quality impacts due to the reduced levels of growth at the north, east, and south sides of the city where the proposed Urban Growth Boundary extends from the city limits under the proposed General Plan. Significant impacts that would be mitigable to less-than-significant levels under the proposed General Plan could also be mitigated under the Reduced Urban Growth Boundary Alternative. In addition, the Reduced Urban Growth Boundary Alternative would also include the adoption of several proposed policies intended to minimize air quality impacts.

Vehicle miles traveled was not modeled for this reduced Urban Growth Boundary alternative and therefore, although air quality impacts would be reduced due to less development within a reduced Urban Growth Boundary, it is not known whether the reduction would result in less than significant air quality impacts. Overall, the Reduced Urban Growth Boundary Alternative would result in reduced air quality impacts. Therefore, the Reduced Urban Growth Boundary Alternative would be superior to the proposed General Plan associated with air quality.

Biological Resources

As presented in Section 3.4 Biological Resources, the proposed General Plan would result in three, less-than-significant potential impacts and two, significant but mitigable potential impacts related to biological resources. Under the Reduced Urban Growth Boundary Alternative, new development would occur throughout the city limits under the policies of the proposed General Plan and a modified land use map that preserves more lands in the SOI for County rural and agricultural uses. Significant impacts that would be mitigable to less-than-significant levels under the proposed General Plan could also be mitigated under the Reduced Urban Growth Boundary Alternative. In addition, the Reduced Urban Growth Boundary Alternative would also include the adoption of several proposed policies intended to minimize biological resource impacts.

Table 4.5-2 Reduced Residential Densities Scenarios

Residential/ Mixed Use Designation	Proposed General Plan			10% Reduction Alternative			20% Reduction Alternative		
	Single-Family Units	Multi-Family Units	Population	Single-Family Units	Multi-Family Units	Population	Single-Family Units	Multi-Family Units	Population
Hillside Residential	191	-	626	172	-	563	153	-	501
Low Density Residential	130	-	425	117	-	383	104	-	306
Medium Density Residential	-	127	352	-	114	317	-	102	282
High Density Residential	-	259	717	-	233	645	-	207	574
Downtown Specific Plan	149	1,045	3,308	134	941	2,977	119	836	2,646
Hecker Pass Special Use District	127	-	416	114	-	374	102	-	333
Glen Loma Ranch Specific Plan	997	-	3,260	897	-	2,934	798	-	2,608
Mixed Use	-	143	397	-	129	357	-	114	318
Neighborhood District High	1,605	1,704	10,255	1,445	1,534	9,230	1,284	1,363	8,204
Totals	3,199	3,278	19,756	2,879	2,951	17,780	2,560	2,622	15,772
Housing Units Total	6,477			5,830			5,182		

Source: Mintier Harnish 2020

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As under the proposed General Plan, future development and land use activities under the Reduced Urban Growth Boundary Alternative would occur primarily in urbanized areas where biological resources are generally limited. The potential for occurrence of special-status species, sensitive natural communities, wetlands, riparian habitat, or wildlife corridors in developed areas is generally somewhat remote in comparison to undeveloped lands with natural habitat that contain essential habitat characteristics for the range of species known to occur within the proposed General Plan buildout area. However, the Reduced Urban Growth Boundary Alternatives reduces the potential for impacting sensitive species and habitats. Therefore, the Reduced Urban Growth Boundary Alternative would be superior to the proposed General Plan associated with biological resources.

Cultural Resources

As presented in Section 3.5, Cultural Resources, the proposed General Plan would result in three, potential, significant but mitigable impacts related to cultural resources. Under the Reduced Urban Growth Boundary Alternative, new development would occur throughout the city limits under the policies of the proposed General Plan and a modified land use map that preserves more lands in the SOI for County rural and agricultural uses. As under the proposed General Plan, development allowed by the Reduced Urban Growth Boundary Alternative would be subject to existing local, state, and federal laws and procedures to protect cultural resources along with the mitigation measures identified in Section 3.5, Cultural Resources. Compliance with existing regulations and mitigation measures described in Section 3.5, would ensure less-than-significant impacts under both the proposed General Plan and Reduced Urban Growth Boundary Alternative.

As under the proposed General Plan, under the Reduced Urban Growth Boundary Alternative new development could involve activities that could affect cultural resources or the development or redevelopment of sites containing cultural resources. However, the Reduced Urban Growth Boundary Alternatives reduces the potential for impacting areas with potentially sensitive cultural resources because of the reduction of developable land. Therefore, the Reduced Urban Growth Boundary Alternative would be superior to the proposed General Plan associated with cultural resources.

Geologic Hazards

As presented in Section 3.6, Geologic Hazards, the proposed General Plan would have less-than-significant impacts associated with geologic hazards. These hazards would apply similarly to the Reduced Urban Growth Boundary Alternative. The proposed General Plan includes a number of policies relevant to these potential geologic hazards that would also be adopted under the Reduced Urban Growth Boundary Alternative. Neither the proposed General Plan nor the Reduced Urban Growth Boundary Alternative would result in significant impacts associated with geologic hazards. However, the Reduced Urban Growth Boundary Alternatives reduces the potential for impacting areas with potential geologic hazards because of the reduction of developable land. Therefore, the Reduced Urban Growth Boundary Alternative would be superior to the proposed General Plan associated with geologic hazards.

Greenhouse Gas Emissions

As presented in Section 3.7, Greenhouse Gas Emission, the proposed General Plan would result in two interim significant and unavoidable impacts associated with GHG emissions. The Reduced Urban Growth Boundary Alternative would result in a reduced level of growth in comparison to the proposed General Plan. However, as under the proposed General Plan, under the Reduced Urban Growth Boundary Alternative the city would still need to adopt and implement a qualified GHG reduction plan. Therefore, the Reduced Urban Growth Boundary Alternative would not avoid this interim significant and unavoidable impact. Without adoption of a qualified GHG reduction plan, the Reduced Urban Growth Boundary Alternative would also not avoid the second interim significant and unavoidable impact due to a conflict with the applicable GHG reduction plan/policy/regulation. However, the Reduced Urban Growth Boundary Alternatives reduces amount of development that would create greenhouse gas emissions because of the reduction of developable land. Therefore, the Reduced Urban Growth Boundary Alternative would be superior to the proposed General Plan associated with greenhouse gas emissions.

Hazardous Materials and Wildfire Hazards

As presented in Section 3.8, Hazardous Materials and Wildfire Hazards, the proposed General Plan would result in five, less than significant impacts associated with hazardous materials and wildfire hazards. Under both the proposed General Plan and Reduced Urban Growth Boundary Alternative, new development could occur on properties that possibly are contaminated and inactive, undergoing evaluation, and/or undergoing corrective action. These activities are subject to a variety of federal, state, and local laws, policies, and regulations. In addition, both the proposed General Plan and Reduced Urban Growth Boundary Alternative include the adoption of policies that would further ensure that new development would not create a significant hazard through routine transport, use, or handling of hazardous materials. Although the Reduced Urban Growth Boundary Alternative would reduce the amount of development proposed by the new General Plan, thereby exposing less people and structures to potential hazards and hazardous materials, neither the proposed General Plan nor the Reduced Urban Growth Boundary Alternative would result in significant impacts associated with hazardous materials. However, the Reduced Urban Growth Boundary Alternatives reduces the amount of land available for development, thereby reducing the amount of development and associated residents and employees that may be subjected to hazardous materials. Therefore, the Reduced Urban Growth Boundary Alternative would be superior to the proposed General Plan associated with hazardous materials.

Regarding wildland fire hazards, development or redevelopment could still occur in the hillsides west and northwest within Gilroy, resulting in the potential for loss associated with wildland fires. However, the Reduced Urban Growth Boundary Alternatives does reduce the potential for wildland fires because of the reduction of developable land to the north, east, and south. Therefore, the Reduced Urban Growth Boundary Alternative would be superior to the proposed General Plan associated with wildland fire hazards.

Storm Water and Flooding

As presented in Section 3.9, Storm Water and Flooding, all flooding and water quality impacts under the proposed General Plan would be less than significant. Construction and operation of development projects allowed by either the proposed General Plan or Reduced Urban Growth Boundary Alternative would have the potential to impact water quality and cause erosion and siltation. However, development under either the proposed General Plan or Reduced Urban Growth Boundary Alternative would be required to comply with existing regulations and guidance documents that would minimize these impacts. The proposed General Plan includes policies that would ensure potential impacts to water quality would not occur with the implementation of the proposed General Plan. These policies would also be adopted under the Reduced Urban Growth Boundary Alternative.

Implementation of the proposed General Plan could result in significant impacts from exposing people to flood risks and from impeding flood flows if future development within the boundaries of 100-year flood hazard zones is not managed consistent with regulations and policies designed to protect against such hazards. Like the proposed General Plan, it is expected that this impact could be reduced to a less-than-significant level for the Reduced Urban Growth Boundary Alternative with implementation of goals, policies, and programs identified in the proposed General Plan. In addition, failure of nearby dams could result in the release of water held behind the dams and result in flooding of parts of Gilroy and surrounding area. Since the risk of dam failure is considered low, the impact would be considered less-than-significant under either the proposed General Plan or Reduced Urban Growth Boundary Alternative.

Neither the proposed General Plan nor the Reduced Urban Growth Boundary Alternative would result in significant flooding and water quality impacts. However, the Reduced Urban Growth Boundary Alternative would result in less development over time and the impacts associated with flooding and water quality would be slightly reduced in comparison to the proposed General Plan. Therefore, the Reduced Urban Growth Boundary Alternative would be superior to the proposed General Plan associated with flooding and water quality.

Groundwater

As presented in Section 3.10, Groundwater, the depletion of groundwater supplies and interference with groundwater recharge are considered less-than-significant impacts under the proposed General Plan. While development allowed under either the proposed General Plan or Reduced Urban Growth Boundary Alternative could lead to an increased demand for water, there is a sufficient supply of water through 2040 even in the event of multiple dry years. The proposed General Plan includes policies that would ensure adequate water supply. These policies would also be adopted under the Reduced Urban Growth Boundary Alternative. Overall, neither the proposed General Plan nor the Reduced Urban Growth Boundary Alternative would result in significant impacts associated with groundwater. However, the Reduced Urban Growth Boundary Alternative would result in even less

development and the impacts associated with groundwater would be reduced in comparison to the proposed General Plan. Therefore, the Reduced Urban Growth Boundary Alternative would be superior to the proposed General Plan associated with groundwater.

Mineral Resources

No impacts were identified for mineral resources under the proposed General Plan. The Reduced Urban Growth Boundary Alternative would not change this conclusion as the area of buildout would be reduced and would not include areas with mineral resource value.

Noise

As presented in Section 3.12, Noise, the proposed General Plan would result in four, less-than-significant noise impacts and two, less-than-significant with mitigation noise impacts. Under the proposed General Plan, new development would avoid significant impacts associated with exposure to excessive noise levels by conforming with requirements for acoustic analysis and mitigation under the proposed General Plan, as well as by achieving subsequent compliance with interior and exterior noise standards through application of any necessary special construction or noise insulation techniques. Under both the proposed General Plan and Reduced Urban Growth Boundary Alternative, policies would also provide guidelines for noise compatibility levels. These policies, along with adherence to existing regulations and proposed mitigation measures, would ensure that land use and development decisions consider and seek to prevent potential noise impacts under both the proposed General Plan and Reduced Urban Growth Boundary Alternative.

Under both the proposed General Plan and Reduced Urban Growth Boundary Alternative, vibration generated by construction equipment would have the potential to be substantial. Overall, vibration impacts under both the proposed General Plan and the Reduced Urban Growth Boundary Alternative related to construction would be short-term, temporary, and generally restricted to the areas in the immediate vicinity of active construction equipment. Proposed policies under both the proposed General Plan and Reduced Urban Growth Boundary Alternative would serve to reduce vibration impacts from construction.

The Reduced Urban Growth Boundary Alternative would result in the same less-than-significant noise impacts as the proposed General Plan and would require the same implementation of policies and mitigation measures as the proposed General Plan. However, the Reduced Urban Growth Boundary Alternative would result in less development and the impacts associated with noise would be slightly reduced in comparison to the proposed General Plan. Therefore, the Reduced Urban Growth Boundary Alternative would be superior to the proposed General Plan as relates to noise.

Police Protection Facilities

No impacts were identified for police protection facilities under the proposed General Plan. The Reduced Urban Growth Boundary Alternative would not change this conclusion as the area of buildout would be reduced and would not require additional police protection facilities.

Fire Protection Facilities

As presented in Section 3.14, Fire Protection Facilities, implementation of the proposed General Plan goals, policies, and programs would reduce potential impacts to fire protection services to a less-than-significant level. The Reduced Urban Growth Boundary Alternative would slightly reduce the buildout area and therefore require slightly less fire protection services and facilities but still necessitate expanded services beyond the current service level. Therefore, the Reduced Urban Growth Boundary Alternative would be superior over the proposed General Plan as relates to fire protection facilities.

School Facilities

As identified in Section 3.15, School Facilities, implementation of the proposed General Plan goals, policies, and programs would reduce potential impacts to school facilities to a less-than-significant level. The Reduced Urban Growth Boundary Alternative would slightly reduce the buildout area and therefore require slightly less school district services and facilities but still necessitate expanded services beyond the current service level. Therefore, the Reduced Urban Growth Boundary Alternative would be superior over the proposed General Plan associated with school facilities.

Park and Recreation Facilities

As presented in Section 3.16, Park and Recreation Facilities, implementation of the proposed General Plan goals, policies, and programs would reduce potential impacts to park and recreation facilities to a less-than-significant level. The Reduced Urban Growth Boundary Alternative would reduce the buildout area and therefore require slightly less park and recreation facilities but still necessitate expanded services beyond the current service level. Therefore, the Reduced Urban Growth Boundary Alternative would be superior to the proposed General Plan associated with park and recreation facilities.

Transportation and Mobility

As presented in Section 3.17, Transportation and Mobility, the proposed General Plan would have one, significant and unavoidable impact related to the effects of Vehicle Miles Travelled (VMT). With implementation of the proposed mitigation measure in addition to implementation of proposed General Plan goals, policies and programs, the effects of VMT would be reduced but not to a less than significant level. Therefore, the impact of VMT resulting from implementation of the proposed General Plan would be significant and unavoidable. In comparison to the proposed General Plan, the Reduced Urban Growth Boundary Alternative would result in less development, limited to the existing city limits. As the amount of development for the proposed General Plan and Reduced Urban Growth Boundary Alternative differ, the Reduced Urban Growth Boundary Alternative would likely generate a reduced amount of traffic and VMT as compared to the proposed General Plan. Implementation of mitigation and proposed policies would not reduce this impact to a less-than-significant level for both development scenarios. Therefore, the Reduced Urban Growth Boundary Alternative would not avoid this significant and unavoidable impact but would result in fewer VMT. Therefore, this alternative would be superior to the proposed General Plan associated with VMT.

Water Service

As presented in Section 3.18, Water Service, implementation of the proposed General Plan may require new or expanded water facilities to pump and distribute water to new development within the Urban Growth Boundary, but not beyond those identified in the 2004 Water System Master Plan, as the planned future growth area was significantly reduced by the passage of the 2016 Urban Growth Boundary Initiative. No environmental impact was identified as a result of the proposed General Plan and therefore, no impact is identified for this alternative. Therefore, there would be no difference between the Reduced Urban Growth Boundary Alternative and the proposed General Plan.

Wastewater Service

As presented in Section 3.19, Wastewater Service, implementation of the proposed General Plan goals, policies, and programs would reduce potential impacts to wastewater service to a less-than-significant level. The Reduced Urban Growth Boundary Alternative would slightly reduce the buildout area and therefore require slightly less wastewater services but still necessitate expanded services beyond the current service level. Therefore, the Reduced Urban Growth Boundary Alternative could be superior over the proposed General Plan associated with wastewater service and treatment plant expansion.

Solid Waste Facilities

As presented in Section 3.20, Solid Waste Facilities, implementation of the proposed General Plan goals, policies, and programs would reduce potential impacts to solid waste facilities to a less-than-significant level, because less solid waste would be deposited at the landfill. The Reduced Urban Growth Boundary Alternative would reduce the buildout area and therefore require less solid waste facilities but still necessitate expanded services beyond the current service level. Therefore, the Reduced Urban Growth Boundary Alternative would superior to the proposed General Plan associated with solid waste facilities.

Energy Conservation

As presented in Section 3.21, Energy Conservation, conformance to applicable state regulations and legislation and implementation of the proposed General Plan goals, policies, and programs would reduce the proposed General Plan's potential impacts to energy resources to a less-than-significant level. In addition, conformance to applicable state regulations and legislation and implementation of the proposed General Plan goals, policies, and programs would ensure that buildout of the proposed General Plan would not conflict with a state plan for renewable energy or energy efficiency. The Reduced Urban Growth Boundary Alternative would be subject to these same state regulations and legislation and proposed General Plan goals, policies, and programs. While the Reduced Urban Growth Boundary Alternative would potentially reduce the amount of energy resources required to implement the proposed General Plan, it would not reduce the level of energy resources required to a level of no impact. Therefore, the Reduced Urban Growth Boundary Alternative would be superior to the proposed General Plan associated with energy conservation.

Alternative 3: Reduced Residential Densities

Alternative Description

The Reduced Residential Densities Alternative examines the effects of reducing the allowed residential densities at 10 percent and 20 percent reduction intervals from the proposed General Plan's residential densities. Table 4.5-2, Reduced Residential Density Scenarios, provides a breakdown of each reduction in density. As the table indicates, the 10 percent reduction scenario would reduce the number of housing units by 647 single- and multi-family housing units from the proposed General Plan totals. The 20 percent reduction scenario would reduce the number of housing units by 1,295 single- and multi-family housing units from the proposed General Plan totals. Growth in overall population in Gilroy would be reduced by 1,976 new residents under the 10 percent reduction scenario and by 3,984 new residents under the 20 percent reduction scenario (from the proposed General Plan projected new resident total). Development would occur within the same Urban Growth Boundary as the proposed General Plan, thereby not decreasing the acreage of developable land.

Reduced Residential Densities Alternative Effects

The environmental effects of the Reduced Residential Densities Alternative compared to the proposed General Plan are summarized by topic area below.

Aesthetics

The proposed General Plan would have less-than-significant impacts to aesthetics and scenic resources. Under the Reduced Residential Densities Alternative, new development would occur throughout the proposed General Plan Urban Growth Boundary with the policies of the proposed General Plan, although at reduced numbers of residential units using the 10 percent and 20 percent reduction scenarios. As under the proposed General Plan, the Reduced Residential Densities Alternative development would be on lands that are already developed, or on vacant lands contiguous to urban uses and major roadways within the existing Urban Growth Boundary. However, as under the proposed General Plan, some future development (both residential and non-residential) allowed by the Reduced Residential Densities Alternative would have the potential to partially or fully block scenic vistas or degrade the existing visual character. In addition, as under the proposed General Plan, new development throughout the proposed General Plan Urban Growth Boundary could create new sources of light and glare. Although the Reduced Residential Densities Alternative would create less residential development, residential development allowed by this alternative would be subject to the same maximum building heights as under the proposed General Plan. As under the proposed General Plan, new development under the Reduced Residential Densities Alternative would be subject to proposed General Plan goals, policies, programs and design review procedures intended to promote high-quality development, protect scenic resources and reduce the effects of light and glare.

Table 4.5-2 Reduced Residential Densities Scenarios

Residential/ Mixed Use Designation	Proposed General Plan			10% Reduction Alternative			20% Reduction Alternative		
	Single-Family Units	Multi-Family Units	Population	Single-Family Units	Multi-Family Units	Population	Single-Family Units	Multi-Family Units	Population
Hillside Residential	191	-	626	172	-	563	153	-	501
Low Density Residential	130	-	425	117	-	383	104	-	306
Medium Density Residential	-	127	352	-	114	317	-	102	282
High Density Residential	-	259	717	-	233	645	-	207	574
Downtown Specific Plan	149	1,045	3,308	134	941	2,977	119	836	2,646
Hecker Pass Special Use District	127	-	416	114	-	374	102	-	333
Glen Loma Ranch Specific Plan	997	-	3,260	897	-	2,934	798	-	2,608
Mixed Use	-	143	397	-	129	357	-	114	318
Neighborhood District High	1,605	1,704	10,255	1,445	1,534	9,230	1,284	1,363	8,204
Totals	3,199	3,278	19,756	2,879	2,951	17,780	2,560	2,622	15,772
Housing Units Total	6,477			5,830			5,182		

Source: Mintier Harnish 2020

Neither the proposed General Plan nor the Reduced Residential Densities Alternative would result in significant aesthetics impacts. However, the Reduced Residential Densities Alternative would result in even less residential development and the impacts associated with aesthetics could be reduced in comparison to the proposed General Plan. Therefore, the Reduced Residential Densities Alternative would be superior to the proposed General Plan associated with aesthetics impacts.

Agricultural Resources

As presented in Section 3.2, Agricultural Resources, the proposed General Plan would result in one less-than-significant impact to agriculture resources and one impact that would be significant and unavoidable. Under buildout conditions of the proposed General Plan, development within the Urban Growth Boundary would result in the conversion of up to 1,119 acres of important farmland (prime farmland and farmland of statewide importance). Under the Reduced Residential Densities Alternative, new development would occur throughout the same proposed General Plan Urban Growth Boundary under the policies of the proposed General Plan but with reduced residential densities set at a 10 percent reduction and 20 percent reduction. Even with reduced residential densities under the Reduced Residential Densities Alternative, the impact to agricultural resources would remain significant and unavoidable, as the same amount of acreage would be developed. The Reduced Residential Densities Alternative would result in less dense residential development however, the same land acreage would be developed and therefore, the same acreage of important farmland would be converted. This alternative would result in the same agricultural resources impacts as the proposed General Plan.

Air Quality -Reduced Residential Density

As presented in Section 3.3 Air Quality, the proposed General Plan would be consistent with the air district's Clean Air Plan, with implementation of mitigation measures adding policies to the General Plan that would require the use of low emissions construction equipment for public and private projects, and implement the air district's dust control measures during project construction. The proposed General Plan would also result in an increase in operational criteria air pollutant emissions resulting from an increase in vehicle miles traveled. This impact would be significant and unavoidable.

Overall, the Reduced Residential Densities Alternative would result in reduced air quality impacts due to the reduced levels of growth. Significant impacts that would be mitigable to less-than-significant levels under the proposed General Plan could also be mitigated under the Reduced Residential Densities Alternative. In addition, the Reduced Residential Densities Alternative would also include the adoption of several proposed policies intended to minimize air quality impacts.

Vehicle miles traveled was not modeled for this Reduced Residential Densities Alternative and therefore, although air quality impacts would be reduced due to less development within reduced development, it is not known whether the reduction would result in less

than significant air quality impacts. Overall, however, this alternative would result in reduced air quality impacts. Therefore, this alternative would be superior to the proposed General Plan associated with air quality.

Biological Resources

As presented in Section 3.4 Biological Resources, the Proposed General Plan would result in three, less-than-significant impacts and two, significant but mitigable impacts related to biological resources. Under the Reduced Residential Densities Alternative, new development would occur throughout the proposed General Plan Urban Growth Boundary under the policies of the proposed General Plan but at reduced residential densities. As under the proposed General Plan, future development and land use activities under the Reduced Residential Densities Alternative would occur primarily in urbanized areas where biological resources are generally limited. The potential for occurrence of special-status species, sensitive natural communities, wetlands, riparian habitat, or wildlife corridors in developed areas is generally less in comparison to undeveloped lands with natural habitat that contain essential habitat characteristics for the range of species known to occur within the proposed General Plan Urban Growth Boundary. Significant impacts that would be mitigable to less-than-significant levels under the proposed General Plan could also be mitigated under the Reduced Residential Densities Alternative. In addition, the Reduced Residential Densities Alternative would also include the adoption of several proposed policies intended to minimize biological resource impacts. The Reduced Residential Densities Alternative would result in less dense residential development however, the same land acreage would be developed and therefore, the same acreage of biological resources would be affected. This alternative would result in the same biological resources impacts as the proposed General Plan.

Cultural Resources

As presented in Section 3.5, Cultural Resources, the proposed General Plan would result in three, significant but mitigable potential impacts related to cultural resources. Under the Reduced Residential Densities Alternative, new development would occur throughout the proposed General Plan Urban Growth Boundary area under the policies of the proposed General Plan but at reduced densities. As under the proposed General Plan, development allowed by the Reduced Residential Densities Alternative would be subject to existing local, state, and federal laws and procedures to protect cultural resources along with the mitigation measures identified in Section 3.5 Cultural Resources. Compliance with existing regulations and mitigation measures described in Section 3.5, would ensure less-than-significant impacts under both the proposed General Plan and Reduced Residential Densities Alternative. As under the proposed General Plan, under the Reduced Residential Densities Alternative new development allowed under the General Plan could involve activities that could affect cultural resources or the development or redevelopment of sites containing cultural resources. The Reduced Residential Densities Alternative would result in less dense residential development however, the same land acreage would be developed

and therefore, the same acreage of development would occur. This alternative would result in the same cultural resources impacts as the proposed General Plan.

Geologic Hazards

As presented in Section 3.6, Geologic Hazards, the proposed General Plan would have less-than-significant impacts associated with geologic hazards. These hazards would apply similarly to the Reduced Residential Densities Alternative and the proposed General Plan. The proposed General Plan includes a number of policies relevant to these potential hazards that would also be adopted under the Reduced Residential Densities Alternative. Neither the proposed General Plan nor the Reduced Residential Densities Alternative would result in significant impacts associated with geologic hazards. However, the Reduced Residential Densities Alternative would result in less residential development, and therefore, reduced risk of injury or death. The impacts associated with geologic hazards would be reduced in comparison to the proposed General Plan. Therefore, the Reduced Residential Densities Alternative would be superior to the proposed General Plan associated with geologic hazards.

Greenhouse Gas Emissions

As presented in Section 3.7, Greenhouse Gas Emission, the proposed General Plan would result in two interim significant and unavoidable impacts associated with GHG emissions. The Reduced Residential Densities Alternative would result in a slightly reduced level of growth in comparison to the proposed General Plan by reducing residential densities by 10 percent and 20 percent, respectively. This would, in turn, reduce the amounts of GHG emissions by approximately 10 percent and 20 percent, respectively, under each reduction scenario. However, as under the proposed General Plan, under the Reduced Residential Densities Alternative the city would still need to adopt and implement a qualified GHG reduction plan. Therefore, the Reduced Residential Densities Alternative would not avoid this interim significant and unavoidable impact. Without adoption of a qualified GHG reduction plan, the Reduced Residential Densities Alternative would also not avoid the second interim significant and unavoidable impact due to a conflict with the applicable GHG reduction plan/policy/regulation. However, the Reduced Residential Densities Alternative would result in even less residential development, and therefore, a reduction in population. The impacts associated with GHG emissions would be reduced in comparison to the proposed General Plan. Therefore, the Reduced Residential Densities Alternative would be superior to the proposed General Plan associated with greenhouse gas emissions.

Hazardous Materials and Wildfire Hazards

As presented in Section 3.8, Hazardous Materials and Wildfire Hazards, the proposed General Plan would result in less than significant impacts associated with hazardous materials and wildfire hazards. Under both the proposed General Plan and Reduced Residential Densities Alternative, new development could occur on properties that possibly are contaminated and inactive, undergoing evaluation, and/or undergoing corrective action. These activities are subject to a variety of federal, state, and local laws, policies, and

regulations. In addition, both the proposed General Plan and Reduced Residential Densities Alternative include the adoption of policies that would further ensure that new development would not create a significant hazard through routine transport, use, or handling of hazardous materials. Although the Reduced Residential Densities Alternative would reduce the amount of residential development allowed by the proposed General Plan, thereby exposing less people and structures to potential hazards and hazardous materials, neither the proposed General Plan nor the Reduced Residential Densities Alternative would result in significant impacts associated with hazardous materials. However, the Reduced Residential Densities Alternative would result in even less residential development and associated population over time and the impacts associated with hazardous materials would be reduced in comparison to the proposed General Plan. Therefore, the Reduced Residential Densities Alternative would be superior to the proposed General Plan associated with hazardous materials.

In addition, since the Reduced Residential Densities Alternative would reduce the potential number of residences in areas near or within areas of wildfire hazards, the less than significant impact associated with wildland fire hazards would remain as with the proposed General Plan. However, the Reduced Residential Densities Alternative would result in less residential development and the impacts associated with wildfire hazards would be reduced in comparison to the proposed General Plan. Therefore, the Reduced Residential Densities Alternative would be superior to the proposed General Plan associated with wildfire hazards.

Flooding and Water Quality

As presented in Section 3.9, Flooding and Water Quality, all flooding and water quality impacts associated with the proposed General Plan would be less than significant. Construction and operation of development projects allowed by either the proposed General Plan or Reduced Residential Densities Alternative would have the potential to impact water quality and cause erosion and siltation. However, development under either the proposed General Plan or Reduced Residential Densities Alternative would be required to comply with existing regulations and guidance documents that would minimize these impacts. The proposed General Plan includes policies that would ensure potential impacts to water quality would not occur with the implementation of the proposed General Plan. These policies would also be adopted under the Reduced Residential Densities Alternative.

Implementation of the proposed General Plan could result in significant impacts from exposing people to flood risks and from impeding flood flows if future development within the boundaries of 100-year flood hazard zones is not managed consistent with regulations and policies designed to protect against such hazards. Like the proposed General Plan, it is expected that this impact could be reduced to a less-than-significant level for the Reduced Residential Densities Alternative with implementation of goals, policies, and programs identified in the proposed General Plan. In addition, failure of nearby dams could result in the release of water held behind the dams and result in flooding of parts of the city and

surrounding area. Since the risk of dam failure is considered low, the impact would be considered less-than-significant under either the proposed General Plan or Reduced Residential Densities Alternative.

Overall, neither the proposed General Plan nor the Reduced Residential Densities Alternative would result in significant impacts associated with hydrology and water quality. However, the Reduced Residential Densities Alternative would result in less residences, with associated population, and the impacts associated with water quality would be slightly reduced in comparison to the proposed General Plan. Therefore, the Reduced Residential Densities Alternative would be superior to the proposed General Plan associated with water quality and flooding.

Groundwater

As presented in Section 3.10, Groundwater, the depletion of groundwater supplies and interference with groundwater recharge are considered less-than-significant impacts under the proposed General Plan. While development allowed under either the proposed General Plan or Reduced Residential Densities Alternative would lead to an increased demand for water, there is a sufficient supply of water through 2040 even in the event of multiple dry years. The proposed General Plan includes policies that would reduce these potential impacts. These policies would also be adopted under the Reduced Residential Densities Alternative. Overall, neither the proposed General Plan nor the Reduced Residential Densities Alternative would result in significant impacts associated with groundwater. However, the Reduced Residential Densities Alternative would result in less residential development and the impacts associated with groundwater would be slightly reduced in comparison to the proposed General Plan. Therefore, the Reduced Residential Densities Alternative would be superior to the proposed General Plan associated with groundwater.

Mineral Resources

No impacts were identified for mineral resources under the proposed General Plan. The Reduced Residential Densities Alternative would not change this conclusion as the total residential units would be reduced under two reduced density scenarios and would not include residential development in areas with mineral resource value.

Noise

As presented in Section 3.12, Noise, the proposed General Plan would result in four, less-than-significant noise impacts and two, less-than-significant with mitigation noise impacts. Under the proposed General Plan, new development would avoid significant impacts associated with exposure to excessive noise levels by conforming with requirements for acoustic analysis and mitigation implementation under the proposed General Plan, as well as by achieving subsequent compliance with interior and exterior noise standards through application of any necessary special construction or noise insulation techniques. Under both the proposed General Plan and Reduced Residential Densities Alternative, policies would also provide guidelines for noise compatibility levels. These policies, along with adherence to existing regulations and proposed mitigation measures, would ensure that land use and

development decisions consider and seek to prevent potential noise impacts under both the proposed General Plan and Reduced Residential Densities Alternative.

Under both the proposed General Plan and Reduced Residential Densities Alternative, vibration generated by construction equipment would have the potential to be substantial. Overall, vibration impacts under both the proposed Plan and Reduced Residential Densities Alternative related to construction would be short-term, temporary, and generally restricted to the areas in the immediate vicinity of active construction equipment. Proposed policies under both the proposed General Plan and Reduced Residential Densities Alternative would serve to reduce vibration impacts from construction.

The Reduced Residential Densities Alternative would result in the same less-than-significant noise and vibration impacts as the proposed General Plan and would require the same implementation of policies and mitigation measures as the proposed General Plan. However, the Reduced Residential Densities Alternative would result in less residences, and associated population, over time and the impacts associated with noise and vibration would be reduced in comparison to the proposed General Plan. Therefore, the Reduced Residential Densities Alternative would be superior to the proposed General Plan as relates to noise and vibration.

Police Protection Facilities

No impacts were identified for police protection facilities under the proposed General Plan. The Reduced Residential Densities Alternative would not change this conclusion as the number of residential units would be reduced at 10 percent and 20 percent reduction scenarios, thereby reducing the number of new residents and the demand on police protection facilities to service residential neighborhoods. This alternative would not change this conclusion as the number or residential units would be less and would not require additional police protection facilities. This alternative would result in the same police protection facilities impacts as the proposed General Plan.

Fire Protection Facilities

As presented in Section 3.14, Fire Protection Facilities, implementation of the proposed General Plan goals, policies, and programs would reduce potential impacts to fire protection services to a less-than-significant level. The Reduced Residential Densities Alternative scenarios would reduce residential development by 10 percent and 20 percent, respectively, and, therefore, require less fire protection services and facilities compared to the proposed General Plan. This alternative would still necessitate expanded services and facilities beyond the current service level. Therefore, this alternative would result in the same fire protection facilities impacts as the proposed General Plan.

School Facilities

As identified in Section 3.15, School Facilities, implementation of the proposed General Plan goals, policies, and programs would reduce impacts to school facilities to a less-than-

significant level. The Reduced Residential Densities Alternative scenarios would reduce the amount of residential development by 10 percent and 20 percent, respectively, and, therefore, require less demand on school district services and facilities. However, the Reduced Residential Densities Alternative would still necessitate expanded school services beyond the current service level, but not at the same level as the proposed General Plan. Therefore, the Reduced Residential Densities Alternative would be superior compare with the proposed General Plan associated with school facilities.

Park and Recreation Facilities

As presented in Section 3.16, Park and Recreation Facilities, implementation of the proposed General Plan goals, policies, and programs would reduce potential impacts to park and recreation facilities to a less-than-significant level. The Reduced Residential Densities Alternative scenarios would reduce the amount of residential development by 10 percent and 20 percent, respectively, and, therefore require less demand on park and recreation facilities. However, the Reduced Residential Densities Alternative would still necessitate expanded park and recreation services beyond the current service level. Therefore, the Reduced Residential Densities Alternative would be superior to the proposed General Plan as relates to park and recreation facilities.

Transportation and Mobility

As presented in Section 3.17, Transportation and Mobility, the proposed General Plan would have one significant and unavoidable impact related to the effects of VMT. With implementation of the proposed mitigation measure in addition to implementation of proposed General Plan goals, policies and programs the effects of VMT would be reduced but not to a less than significant level. Therefore, the impact of VMT resulting from implementation of the proposed General Plan would be significant and unavoidable. In comparison to the proposed General Plan, the Reduced Residential Densities Alternative scenarios would result in less residential development by 10 percent and 20 percent, respectively. As the amount of residential development for the proposed General Plan and Reduced Residential Densities Alternative differ, the Reduced Residential Densities Alternative would generate a reduced amount of traffic and VMT associated with residential development as compared to the proposed General Plan. Implementation of mitigation and proposed policies would not reduce this impact to a less-than-significant level for both development scenarios. Therefore, the Reduced Residential Densities Alternative would not avoid this significant and unavoidable impact; however, it would result in less VMT and would be superior to the proposed General Plan associated with transportation and mobility.

Water Service

As presented in Section 3.18, Water Service, implementation of the proposed General Plan may require new or expanded water facilities to pump and distribute water to new and existing development within the Urban Growth Boundary, but not beyond those identified in the 2004 Water System Master Plan, as the planned future growth area was significantly

reduced by the passage of the 2016 Urban Growth Boundary Initiative. No environmental impact was identified as a result of the proposed General Plan. A reduction in residential development by 10 percent and 20 percent, respectively, under the Reduced Residential Densities Alternative scenarios would also not require the need for new or expanded water facilities. Therefore, the Reduced Residential Densities Alternative would be the same as the proposed General Plan associated with impacts related to water service.

Wastewater Service

As presented in Section 3.19, Wastewater Service, implementation of the proposed General Plan goals, policies, and programs would reduce potential impacts to wastewater service to a less-than-significant level. The Reduced Residential Densities Alternative would slightly reduce the residential development allowed and therefore require slightly less wastewater services but still necessitate expanded services beyond the current service level. Therefore, the Reduced Residential Densities Alternative could be superior over the proposed General Plan associated with wastewater service and treatment plant expansion.

Solid Waste Facilities

As presented in Section 3.20 Solid Waste Facilities, implementation of the proposed General Plan goals, policies, and programs would reduce potential impacts to solid waste facilities to a less-than-significant level. The Reduced Residential Densities Alternative would reduce the amount of residential development at 10 percent and 20 percent reduction scenarios and therefore require less demand on solid waste facilities. However, the Reduced Residential Densities Alternative may still necessitate expanded solid waste services beyond the current service level, even though this alternative would result in a decrease in solid waste. Therefore, the Reduced Residential Densities Alternative would be superior to the proposed General Plan associated with solid waste facilities.

Energy Conservation

As presented in Section 3.21, Energy Conservation, conformance to applicable state regulations and legislation and implementation of the proposed General Plan goals, policies, and programs would reduce the proposed General Plan's potential impacts to energy resources to a less-than-significant level. In addition, conformance to applicable state regulations and legislation and implementation of the proposed General Plan goals, policies, and programs would ensure that buildout of the proposed General Plan would not conflict with a state plan for renewable energy or energy efficiency. The Reduced Residential Densities Alternative would be subject to these same state regulations and legislation and proposed General Plan goals, policies, and programs. While the Reduced Residential Densities Alternative would potentially reduce the amount of energy resources required to implement the proposed General Plan due to the residential reduction scenarios of 10 percent and 20 percent, it would not reduce the level of energy resources required to a level of no impact. Therefore, the Reduced Residential Densities Alternative would be superior to the proposed General Plan associated with energy conservation.

Comparison of Alternatives

The environmental impacts of the alternatives are summarized and compared in a matrix format in Table 4.5-3, Comparison of Environmental Impacts of Project Alternatives to the Gilroy 2040 General Plan.

Table 4.5-3 Comparison of Environmental Impacts of Project Alternatives to the Gilroy 2040 General Plan

Environmental Impact	Gilroy 2040 General Plan (Proposed Project)	Alternative 1 No Project (Existing General Plan)	Alternative 2 Reduced Urban Growth Boundary	Alternative 3 Reduced Residential Densities
Aesthetics				
Scenic Vistas and Gilroy's Visual Character	Less than Significant	Less than Significant Greater Impacts	Less than Significant Fewer Impacts	Less than Significant Fewer Impacts
Agricultural Resources				
Loss of Important Farmland	Significant and Unavoidable	Significant and Unavoidable No Change	Significant and Unavoidable Fewer Impacts	Significant and Unavoidable No Change
Air Quality				
Consistency with the Clean Air Plan	Less than Significant with Mitigation	Less than Significant with Mitigation Greater Impacts	Less than Significant with Mitigation Fewer Impacts	Less than Significant with Mitigation Fewer Impacts
Increase in Operational Criteria Air Pollutant Emissions Resulting from an Increase in Vehicle Miles Traveled	Significant and Unavoidable	Significant and Unavoidable Greater Impacts	Potentially Significant and Unavoidable Fewer Impacts	Potentially Significant and Unavoidable Fewer Impacts
Adverse Effects to Sensitive Receptors from Toxic Air Contaminants	Less than Significant with Mitigation	Less than Significant with Mitigation Greater Impacts	Less than Significant with Mitigation Fewer Impacts	Less than Significant with Mitigation Fewer Impacts
Adverse Effects from Odors	Less than Significant	Less than Significant Greater Impacts	Less than Significant Fewer Impacts	Less than Significant Fewer Impacts
Biological Resources				
Impacts to Special-Status Plant and Wildlife Species	Less than Significant with Mitigation	Less than Significant with Mitigation Greater Impacts	Less than Significant with Mitigation Fewer Impacts	Less than Significant with Mitigation No Change
Adverse Effect on Sensitive Natural Communities	Less than Significant	Less than Significant Greater Impacts	Less than Significant Fewer Impacts	Less than Significant No Change
Adverse Effect on Jurisdictional Wetlands and Waterways	Less than Significant with Mitigation	Less than Significant with Mitigation Greater Impacts	Less than Significant with Mitigation Fewer Impacts	Less than Significant with Mitigation No Change

Environmental Impact	Gilroy 2040 General Plan (Proposed Project)	Alternative 1 No Project (Existing General Plan)	Alternative 2 Reduced Urban Growth Boundary	Alternative 3 Reduced Residential Densities
Adverse Effect on Wildlife Movement	Less than Significant	Less than Significant with Mitigation Greater Impacts	Less than Significant with Mitigation Fewer Impacts	Less than Significant with Mitigation No Change
Adverse Effect on Regulated Trees	Less than Significant	Less than Significant with Mitigation Greater Impacts	Less than Significant with Mitigation Fewer Impacts	Less than Significant with Mitigation No Change
Conflict with Habitat Conservation Plan	No Impact	Less than Significant with Mitigation Greater Impacts	Less than Significant with Mitigation Fewer Impacts	Less than Significant with Mitigation No Change
Cultural Resources				
Possible Change in the Significance of a Historic Resource	Less than Significant with Mitigation	Less than Significant with Mitigation Greater Impacts	Less than Significant with Mitigation Fewer Impacts	Less than Significant with Mitigation No Change
Possible Change in the Significance of a Unique Archaeological Resource	Less than Significant with Mitigation	Less than Significant with Mitigation Greater Impacts	Less than Significant with Mitigation Fewer Impacts	Less than Significant with Mitigation No Change
Possible Disturbance of Native American Human Remains	Less than Significant with Mitigation	Less than Significant with Mitigation Greater Impacts	Less than Significant with Mitigation Fewer Impacts	Less than Significant with Mitigation No Change
Geologic Hazards				
Expose People or Structures to Risk of Loss or Injury Involving Fault Ruptures	Less than Significant	Less than Significant Greater Impacts	Less than Significant Fewer Impacts	Less than Significant Fewer Impacts
Expose People or Structures to Risk of Loss or Injury Involving Seismic Ground Shaking	Less than Significant	Less than Significant Greater Impacts	Less than Significant Fewer Impacts	Less than Significant Fewer Impacts
Expose People or Structures to Risk of Loss or Injury Involving Seismically-Induced Ground Failure	Less than Significant	Less than Significant Greater Impacts	Less than Significant Fewer Impacts	Less than Significant Fewer Impacts
Expose People or Structures to Risk of Loss or Injury Involving Seismically-Induced Landslides	Less than Significant	Less than Significant Greater Impacts	Less than Significant Fewer Impacts	Less than Significant Fewer Impacts
Result in Soil Erosion or Loss of Topsoil	Less than Significant	Less than Significant Greater Impacts	Less than Significant Fewer Impacts	Less than Significant Fewer Impacts
Development Located on an Unstable Geologic Unit or Soil, and Potentially Result in On- or Off-Site Landslide, Lateral Spreading, Subsidence, Liquefaction, or Collapse	Less than Significant	Less than Significant Greater Impacts	Less than Significant Fewer Impacts	Less than Significant Fewer Impacts

Environmental Impact	Gilroy 2040 General Plan (Proposed Project)	Alternative 1 No Project (Existing General Plan)	Alternative 2 Reduced Urban Growth Boundary	Alternative 3 Reduced Residential Densities
Located on Expansive Soil, Creating Risks to Life or Property	Less than Significant	Less than Significant Greater Impacts	Less than Significant Fewer Impacts	Less than Significant Fewer Impacts
Greenhouse Gas Emissions				
Generate a Significant Volume of GHG Emissions	Interim Significant and Unavoidable	Interim Significant and Unavoidable Greater Impacts	Interim Significant and Unavoidable Fewer Impacts	Interim Significant and Unavoidable Fewer Impacts
Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing GHG Emissions	Interim Significant and Unavoidable	Interim Significant and Unavoidable Greater Impacts	Interim Significant and Unavoidable Fewer Impacts	Interim Significant and Unavoidable Fewer Impacts
Hazardous Materials and Wildland Fire Hazards				
Create Hazard to the Public or Environment Through the Routine Transport, Use, or Disposal of Hazardous Materials	Less Than Significant	Less Than Significant Greater Impacts	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts
Create Hazard to the Public or the Environment Through Reasonably Foreseeable Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment	Less Than Significant	Less Than Significant Greater Impacts	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts
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	Less Than Significant Greater Impacts	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts
Inclusion of a Site Which is Included on a List of Hazardous Materials Sites Compiled Pursuant to Government Code Section 65962.5	Less Than Significant	Less Than Significant Greater Impacts	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts
Impair Implementation of or Physically Interfere with an Adopted Emergency Response Plan or Emergency Evacuation Plan	No Impact	No Impact Greater Impacts	No Impact Fewer Impacts	No Impact Fewer Impacts
Expose People and Structures to a Risk of Loss, Injury, or Death Involving Wildland Fires	Less Than Significant	Less Than Significant Greater Impacts	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts
Storm Water and Flooding				
Diminished Water Quality from Storm Water Pollutants	Less Than Significant	Less Than Significant Greater Impacts	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts
Increased Storm Water Runoff	Less Than Significant	Less Than Significant Greater Impacts	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts

Environmental Impact	Gilroy 2040 General Plan (Proposed Project)	Alternative 1 No Project (Existing General Plan)	Alternative 2 Reduced Urban Growth Boundary	Alternative 3 Reduced Residential Densities
Expose People to Flooding Risks by Placing Housing or Structures Within a 100-Year Flood Hazard Area	Less Than Significant	Less Than Significant Greater Impacts	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts
Expose People or Structures to Hazards from Flooding as a Result of Dam Failure	Less Than Significant	Less Than Significant Greater Impacts	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts
Groundwater				
Deplete Groundwater Supplies	Less Than Significant	Less Than Significant Greater Impacts	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts
Interfere with Groundwater Recharge	Less Than Significant	Less Than Significant Greater Impacts	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts
Mineral Resources				
Loss of Availability of a Known Mineral Resource of Value	No Impact	No Impact No Change	No Impact No Change	No Impact No Change
Noise				
Increase in Traffic Noise Levels Affecting Sensitive Land Uses	Less Than Significant with Mitigation	Less Than Significant with Mitigation Greater Impacts	Less Than Significant with Mitigation Fewer Impacts	Less Than Significant Fewer Impacts
New Noise-Sensitive Land Uses Could be Exposed to Stationary and Local Noise Sources	Less Than Significant	Less Than Significant Greater Impacts	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts
New Development May Produce Noise Near Sensitive Receptors	Less Than Significant	Less Than Significant Greater Impacts	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts
Construction Noise	Less Than Significant with Mitigation	Less Than Significant with Mitigation Greater Impacts	Less Than Significant with Mitigation Fewer Impacts	Less Than Significant with Mitigation Fewer Impacts
Construction Vibration	Less Than Significant	Less Than Significant Greater Impacts	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts
Police Protection Facilities				
No Requirement for Alteration or Construction of New Facilities	No Impact	No Impact No Change	No Impact No Change	No Impact No Change
Fire Protection Facilities				
Requirement for Alteration or Construction of New Facilities	Less Than Significant	Less Than Significant No Change	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts
School Facilities				
Requirement for Alteration or Construction of New Facilities	Less Than Significant	Less Than Significant No Change	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts

Environmental Impact	Gilroy 2040 General Plan (Proposed Project)	Alternative 1 No Project (Existing General Plan)	Alternative 2 Reduced Urban Growth Boundary	Alternative 3 Reduced Residential Densities
Park and Recreation Facilities				
Requirement for Alteration or Construction of New Facilities	Less Than Significant	Less Than Significant No Change	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts
Transportation and Mobility				
Significant Increase in Vehicle Miles Traveled (VMT)	Significant and Unavoidable	Significant and Unavoidable Greater Impacts	Significant and Unavoidable Fewer Impacts	Significant and Unavoidable Fewer Impacts
Water Service				
No Requirement for Alteration or Construction of New Facilities	No Impact	No Impact No Change	No Impact No Change	No Impact Fewer Impacts
Wastewater Service				
Would not Require Alteration or Construction of New Facilities	Less Than Significant	Less Than Significant No Change	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts
Solid Waste Facilities				
Increase in Solid Waste Possibly Requiring Upgraded Facilities	Less Than Significant	Less Than Significant No Change	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts
Energy Conservation				
Increased Use of Energy Resources	Less Than Significant	Less Than Significant Greater Impacts	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts
No Conflict with a State or Local Plan for Renewable Energy or Energy Efficiency	Less Than Significant	Less Than Significant No Change	Less Than Significant Fewer Impacts	Less Than Significant Fewer Impacts
Environmental Ranking	3	4	1	2
Project Objectives	Met	Partially Met	Partially Met	Partially Met

Source: EMC Planning Group 2020

Alternative 1, the existing General Plan, would result in generally the same adverse environmental impacts as the proposed General Plan and partially meets the project objectives. However, the proposed General Plan includes many new and modified policies that assist with mitigating adverse environmental effects. Therefore, the proposed General Plan is environmentally superior to Alternative 1, the existing General Plan. Alternative 1 is not an environmentally superior alternative and would meet some of the proposed General Plan objectives.

Alternative 2, the Reduced Urban Growth Boundary Alternative, would also result in generally the same type of adverse environmental impacts as the proposed General Plan

and partially meets the project objectives. However, because this alternative reduces the amount of developable land by 1,177 acres, environmental impacts would not occur on that acreage. Therefore, the Reduced Urban Growth Boundary alternative is environmentally superior to the proposed General Plan, and would partially meet the proposed General Plan objectives.

Alternative 3, the Reduced Residential Densities Alternative, would result in generally the same adverse environmental impacts as the proposed General Plan and partially meets the project objectives. However, because this alternative would reduce the number of residential units by 10 percent or 20 percent, it would result in fewer environmental impacts in the areas of aesthetics, air quality, greenhouse gas emissions, geologic hazards, hazardous materials and wildland fires, storm water and flooding, groundwater, noise, fire protection facilities, school facilities, park and recreation facilities, vehicle miles traveled, water facilities, wastewater facilities, solid waste facilities, and energy resources. Therefore, Alternative 3, the Reduced Residential Densities alternative, is environmentally superior to the proposed General Plan, and would partially meet the proposed General Plan objectives.

Conclusion

Alternative 2, Reduced Urban Growth Boundary, reduces the amount of developable land by 1,177 acres. As a result, environmental impacts would not occur on that acreage. Therefore, the Reduced Urban Growth Boundary Alternative is the environmentally superior alternative. As described above, each of the three alternatives have generally the same adverse environmental impacts as the proposed General Plan, but do not fully achieve the project objectives of the proposed General Plan.

5.0
DOCUMENTATION

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