# Draft Supplemental Program Environmental Impact Report

# Envision San José 2040 General Plan

State Clearinghouse No. 2009072096
File Number: PP09-011

Prepared by the

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

September 2015

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

*Department of Planning, Building and Code Enforcement*
**HARRY FREITAS, DIRECTOR**

# NOTICE OF AVAILABILITY OF A DRAFT SUPPLEMENTAL PROGRAM ENVIRONMENTAL IMPACT REPORT AND PUBLIC COMMENT PERIOD

The City prepared a Draft Supplemental Program Environmental Impact Report (Draft Supplemental PEIR) to the Envision San José 2040 General Plan to provide additional analysis and information on greenhouse gas emissions to supplement the Envision San José 2040 General Plan Program EIR (State Clearinghouse No. 2009072096) certified by the City of San José on November 1, 2011. The Supplemental PEIR is intended to inform the decision makers and general public of the environmental effects of greenhouse gas emissions and global climate change associated with continued implementation of the Envision San José 2040 General Plan. Discretionary approvals to implement the project consist of text revisions to the Envision San José 2040 General Plan, including, but not limited to the update/re-adoption of the City's Greenhouse Gas Reduction Strategy. **Location:** Citywide. **File Nos.:** PP15-060 and GPT15-002. **Council District:** Citywide.

The proposed project will have potentially significant environmental effects with regard to greenhouse gas emissions.

The Draft Supplemental PEIR and documents referenced in the Draft Supplemental PEIR are available for review online at the City of San José's "Active EIRs" website at http://www.sanjoseca.gov/index.aspx?nid=2434 and are also available at the following locations:

Department of Planning, Building,
and Code Enforcement
200 East Santa Clara Street,, 3rd Floor
San José, CA 95113
(408) 535-3555

Dr. Martin Luther King Jr. Main Library
150 E. San Fernando St.
San José, CA 95112
(408) 277-4822

The public review period for this Draft EIR begins on **September 25, 2015** and ends on **November 9, 2015.** Written comments must be received at the Planning Department by **5:00 p.m. on November 9, 2015**, in order to be addressed as part of the formal EIR review process. Comments and questions should be referred to David Keyon in the Department of Planning, Building and Code Enforcement at (408) 535-7898, via e-mail: David.Keyon@sanjoseca.gov, or by regular mail at the mailing address listed above. Please reference the above file number in your written comment letter.

Following the close of the public review period, the Director of Planning, Building, and Code Enforcement will prepare a Final Environmental Impact Report that will include responses to comments received during the review period. At least ten days prior to the public hearing on the EIR, the City's responses to comments received during the public review period will be available for review and will be sent to those who have commented in writing on the EIR during the public review period.

Harry Freitas, Director
Planning, Building and Code Enforcement

Date: 9/18/15

# Draft
# Supplemental Program Environmental Impact Report

---

# Envision San José 2040 General Plan

**State Clearinghouse No. 2009072096**
**File Number: PP09-011**

---

***Prepared by the***

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

***In Consultation with:***

DAVID J. POWERS & ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS & PLANNERS

## September 2015

# TABLE OF CONTENTS



## FIGURES

# TABLE OF CONTENTS

## TABLES



**Appendices**

# SUMMARY

The purpose of this Supplemental Program Environmental Impact Report (Supplemental PEIR) is to inform decision-makers and the general public of the physical environmental effects (specifically greenhouse gas emissions) which might result from implementation of the Envision San José 2040 General Plan (2040 General Plan).

This EIR will be a Supplemental PEIR to the *Envision San José 2040 General Plan Final Program EIR* (2040 General Plan PEIR) certified by the San José City Council in 2011. In a judgement of dismissal of *California Clean Energy Committee (CCEC) v. City of San José* (Case Number: 1-11-CV-212623) dated April 16, 2015, the City of San José agreed to prepare a Supplemental PEIR to supplement the information included in the 2040 General Plan Final PEIR regarding greenhouse gas emissions and global climate change.

The project is continued implementation of the Envision San Jose 2040 General Plan, a long-term plan that describes the amount, type, and phasing of development in the City of San José.

There are no modifications proposed to the land use and growth assumptions in the project description of the 2040 General Plan. This Supplemental PEIR reevaluates the significance of projected greenhouse gas emissions associated with existing and planned land uses in San José and the consistency of the General Plan and GHG Reduction Strategy with the California Climate Change Scoping Plan and other plans.

### Summary of Significant Impacts and Mitigation Measures

The following table is a brief summary of the environmental impacts of the project on greenhouse gas emissions identified and discussed within the text of the Supplemental PEIR, and the mitigation measures proposed to avoid or reduce identified significant impacts. The reader is referred to the main body text of the Supplemental PEIR for detailed discussions of the project background, existing setting, impacts, and mitigation measures. Alternatives to the proposed project are also summarized at the end of the table.

| Impact | Mitigation Measures |
|---|---|
| **Greenhouse Gas Emissions and Global Climate Change** | |
| **Impact GHG-1:** The City's projected 2020 GHG emissions, in total and compared to emissions in 2008, would not prevent the State of California from meeting its 2020 targets for reducing statewide GHG emissions, and therefore, would not represent a cumulatively considerable contribution to global climate change. **(Less Than Significant Cumulative Impact)** | No mitigation required. |
| **Impact GHG-2:** The City's projected 2020 GHG emissions will be below the average carbon-efficiency standard necessary to meet statewide 2020 goals as established by AB 32. Implementation of the proposed General Plan through 2020 would not constitute a cumulatively considerable contribution to global climate change. **(Less Than Significant Cumulative Impact**) | No mitigation required. |
| **Impact GHG-3:** The City's projected 2035 GHG emissions, in total and compared to emissions in 2008, could prevent the State of California from maintaining a statewide trajectory to achieve Executive Order S-3-05 emissions levels in 2050, and therefore, would represent a cumulatively considerable contribution to global climate change. **(Significant Cumulative Impact)**<br><br>**Impact GHG-4:** The City's projected 2035 GHG emissions, without further reductions, would constitute a cumulatively considerable contribution to global climate change by exceeding the average carbon-efficiency standard necessary to maintain a trajectory to meet statewide 2050 goals as established by Executive Order S-3-05. **(Significant Cumulative Impact)** | Some measures in the Greenhouse Gas Reduction Strategy have not be quantified, or estimates need be redone to reflect changes in emission factors due to either the State' Renewables Portfolio requirements or various vehicle emission reduction programs. These measures include:<br><br>• LUT-1, LUT-2 and LUT-3 (Combination of Increased Density, Mixed Uses and Location Efficiency on VMT)<br>• LUT-5 (Multi-Family Residential Bike Parking)<br>• BEE-4 (Community Energy Programs)<br>• BEE-7 (LED Traffic Lights)<br>• OM-1 (Urban Tree Planting)<br>• OM-2 (Farmer's Market)<br>• OM-3 (Community Gardens)<br><br>Previous estimates for the largest reductions for these measures were on the order of about 500,000 -700,000 MT $CO_2e$ per year, assuming emission factors for energy production and vehicle operation available at the time of completion of the 2040 General Plan PEIR. Reductions for the measures are expected to be somewhat lower with |

| Impact | Mitigation Measures |
|---|---|
| **Greenhouse Gas Emissions and Global Climate Change** | |
| | the implementation of statewide regulations, such as the Renewables Portfolio Standard and Clean Car Programs.<br><br>**MM GHG-3.1/4.1**: Additional feasible and enforceable measures or strategies within the City's purview that could be incorporated in the City's General Plan, Greenhouse Gas Reduction Strategy (and Municipal Code) in the near term include:<br><br>**Built Environment and Energy (BEE)**<br><br>• *Water Conservation:* Move up target for citywide water consumption reduction. Revise Policy MS-18.5 as shown*:*<br><br>**MS-18.5** Reduce citywide per capita water consumption by 25% by <u>2030</u> ~~2040~~ from a baseline established using the 2010 Urban Water Management Plans of water retailers in San José.<br><br>This will be enforceable by the City of San José through compliance with state standards, like low flow plumbing fixtures, and participation in rebate or other programs to support replacement of fixtures in the existing built environment.<br><br>• *Cool Roofs and Cool Pavements:* Support state efforts related to cool roof standards and in the interim encourage cool roof design in new buildings and roof replacements and installation of cool pavements. Implementation of building code requirements (as updated) and selection of appropriate building materials when replacing existing roofs and pavements are part of this measure. Revise Policy MS-2.6 as follows:<br><br>**MS-2.6:** Promote roofing design and surface treatments that reduce the heat island effect of new and existing development <u>and support reduced energy use, reduced air pollution, and a healthy urban forest. Connect businesses and residents with cool roof rebate programs through City outreach efforts.</u><br><br>This will be enforceable by the City of San José through compliance with California Building Code standards for |

| Impact | Mitigation Measures |
|---|---|
| **Greenhouse Gas Emissions and Global Climate Change** | |
| | non-residential buildings, and for new residential buildings and existing buildings as building codes and building material standards are revised based upon California Energy Commission research. Connecting businesses and residents with cool roof rebate programs (such as those periodically offered by Pacific Gas and Electric) is feasible through the City's participation in joint programs such as *Silicon Valley Energy Watch* (http://www.sanjoseca.gov/index.aspx?NID=1501).<br><br>• *Energy Sources for Energy Intensive Industries:* Consider the efficiency of energy production for energy intensive uses as well as facility operational energy efficiency measures. Revise Action MS-2.8 as follows:<br><br>**MS-2.8**: Develop policies which promote energy reduction for energy-intensive industries. For facilities such as data centers, which have high energy demand and indirect greenhouse gas emissions, require evaluation of operational energy efficiency and inclusion of operational design measures as part of development review consistent with benchmarks such as those in EPA's EnergyStar Program for new data centers. Also require consideration of distributed power production for these facilities to reduce energy losses from electricity transmission over long distances and energy production methods such as waste-heat reclamation or the purchase of renewable energy to reduce greenhouse gas emissions.<br><br>This will be enforceable by the City of San José through the development review and permitting process.<br><br>• *Energy Sources for Business and Homeowners:* Support and disseminate information to businesses and homeowners regarding the availability of solar power purchasing programs, especially for solar power generated in California. |

| Impact | Mitigation Measures |
|---|---|
| **Greenhouse Gas Emissions and Global Climate Change** | |
| | **MS-2.9:** Develop, implement, and utilize programs that help businesses and homeowners improve the energy efficiency of new and existing buildings and use of renewable energy sources, such as solar, through on-site generation or purchase of electricity from solar power programs in California.<br><br>Connecting businesses and residents with optional solar power programs (such as proposed to be offered by Pacific Gas and Electric) is feasible through the City's website and the Green Vision program.<br><br>**Land Use and Transportation (LUT)**<br><br>• *Transportation Demand Measures (TDM) for New Large Employers*: Revise policy to address monitoring and note specific measures. Revise Policy TR-7.1 as shown:<br><br>**TR-7.1** Require large employers to develop and maintain TDM programs to reduce the vehicle trips and vehicle miles generated by their employees through the use of shuttles, provision for car-sharing, bicycle sharing, carpool, parking strategies and other measures.<br><br>This will be enforceable by the City of San José through the development review and permitting process.<br><br>*Community Car or Bike Sharing Programs:* Revise policies to list car-sharing and bicycle sharing as possible measures in TDM programs.<br><br>**TR-7.1** See revisions above.<br><br>**TR-7.2** Update and enhance the existing TDM program for City of San José employees. This program may include the expansion of transit pass subsidies, free shuttle service, preferential carpool parking, ridesharing, flexible work schedules, parking pricing, car-sharing, bicycle sharing, and other measures. |

| Impact | Mitigation Measures |
|---|---|
| **Greenhouse Gas Emissions and Global Climate Change** | |
| | Implementation of Policy 7.1 will be enforceable by the City of San José through the development review and permitting process. The TDM program for City of San José employees is periodically updated. A bicycle sharing service is currently available at San José City Hall.<br><br>• *Adopt Standards for New Large Multi-family Residential and Large Employers Requiring Electric Charging Infrastructure:* Revise policy on alternative fuel vehicle charging/fueling stations as follows:<br><br>**TR-1.16** Develop a strategy to construct a network of public and private alternative fuel charging/fueling stations city wide. <u>Revise parking standards to require the installation of installation of electric charging infrastructure at new large employment sites and large, multiple family residential developments.</u><br><br>This will be enforceable by the City of San José through the development review and permitting process.<br>The emission reductions identified at this time are not large enough to meet the identified 3.04 MT $CO_2e$/SP efficiency metric. An additional reduction of 5,392,000 MT $CO_2e$ per year would be required for the projected service population to meet the City's target for 2035.<br><br>Achieving the substantial communitywide GHG emissions reductions needed beyond 2020 cannot be done alone with the measures listed above and will require an aggressive multiple-pronged approach that includes policy decisions and additional emission controls at the federal and state level and new and substantially advanced technologies that cannot be anticipated or predicted with any accuracy at this time. It also will require substantial behavioral changes to reduce single occupant vehicle trips, especially to and from work places. Future policy and regulatory decisions by other agencies (such as the California ARB, PUC, California Energy Commission, MTC, and BAAQMD) and technological advances are outside the City's control, and therefore cannot be relied upon as feasible mitigation strategies. Given the uncertainties about the feasibility of achieving the needed 2035 emissions reductions, the City's contribution to greenhouse gas emissions and climate change for the 2035 timeframe is |

| Impact | Mitigation Measures |
|---|---|
| **Greenhouse Gas Emissions and Global Climate Change** | |
| | conservatively determined to be cumulatively considerable. **(Significant Unavoidable Impact)** |
| **IMPACT GHG-5:** Goals, policies and actions in the 2040 General Plan would not conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. **(Less Than Significant Impact)** | No mitigation is required. |

## Summary of Project Alternatives

CEQA requires that an EIR identify alternatives to the project as proposed. The CEQA Guidelines specify that an EIR identify alternatives which "would feasibly attain the most basic objectives of the project but avoid or substantially lessen many of the significant environmental effects of the project," or would further reduce impacts that are considered less than significant with the incorporation of identified mitigation.

While CEQA does not require that alternatives must be capable of meeting all of the project objectives, their ability to meet most of the objectives is considered relevant to their consideration. The City's objectives for the 2040 General Plan are provides on pages 21 to 23 of this Supplemental PEIR.

Consideration of a "No Project" alternative is mandatory under CEQA. When a project is the revision of an existing land use plan, the "no project" alternative is the continuation of the existing plan into the future [CEQA Guidelines Section 15126.6(a)(3)(A)]. The discussion of "No Project" below is based on continued use of the existing 2040 General Plan, without a qualified Greenhouse Gas Reduction Strategy (GGRS).

### No Project/2040 General Plan without Greenhouse Gas Reduction Strategy (GGRS)

The purpose of this alternative is to identify what development and associated environmental impacts would occur if the City did not adopt the reanalyzed GGRS as a part of its General Plan. This alternative would include:

1. The same development potential and land use and transportation diagram associated with the 2040 General Plan projected through 2035;

2. Individual projects allowed under the General Plan in San José would complete program or project-level review of greenhouse gas emissions. Impacts would be assessed based upon appropriate thresholds of significance identified by the City of San José, based on substantial evidence, and mitigation measures, if needed, would be implemented on a project-by-project basis.

3. It is assumed that local programs to improve energy efficiency and reduce GHG emissions, such as alternative fuels for municipal fleets and LED traffic lights that are part of other City-initiatives would continue. Additional GHG reduction measures may not occur.

The No Project/2040General Plan without GGRS Alternative would result in the same or similar impacts as the project. Community 2035 GHG emissions would be the same or similar to those estimated for the project.

Relying on individual greenhouse gas analyses for environmental review of GHG emissions could have several effects on development intensity and project design. For smaller projects, some local measures (such as those in the GGRS) may not be applied as mitigation for projects that do not exceed project-level thresholds of significance. In addition, developers may choose to develop smaller or less intense projects to avoid the cost of some mitigation measures (such as on-site renewable energy systems or trip reduction measures). If these patterns emerged, GHG emissions per service population could be incrementally higher than the project over time.

This Alternative would not be environmentally superior to the proposed project. The No Project/2040General Plan without GGRS Alternative is feasible from a land use and planning standpoint. The No Project/2040General Plan without GGRS Alternative would not fully meet the basic project objective of the City of San José to integrate and advance the City's Green Vision, including community sustainability indicators, using the General Plan as the basis for the City's Greenhouse Gas Reduction Strategy (Objective #15).

**Other Development Scenarios Addressed in the 2040 General Plan PEIR**

The 2040 General Plan PEIR included an analysis of five alternative levels of development (Scenarios 1-5). Scenario 1, the Low Growth Alternative, was found to be the environmentally superior alternative.

**Comparison of Alternatives**

A comparison of alternatives based upon whether they avoid or substantially lessen any of the significant environmental effects of the project is provided in Table S-1.

| Table S-1: Comparison of Impacts from Alternatives to the 2040 General Plan with GGRS Project | | | | | | |
|---|---|---|---|---|---|---|
| **Significant Impacts of the Proposed General Plan** | **Level of Impact** | | | | | |
| | **No Project**[1] | **Scenario 1** Low Growth | **Scenario 2** More Housing/ Fewer Jobs | **Scenario 3** ABAG Projections | **Scenario 4** More Jobs/Less Housing | **Scenario 5** Slightly More Housing/ Less Jobs |
| Land Use (Agricultural Resources) | Same | Same | Same | Same | Same | Same |
| Transportation | Same | Less | Less | Same | More | Same |
| Noise | Same | Less | Same | Same | More | Same |
| Air Quality | Same | Less | Less | Same | More | Same |
| Biological Resources (Indirect Impacts) | Same | Less | Less | Less | More | Same |
| Aesthetics | Same | N. Coyote: Same Comm. Hill: Slightly More | N. Coyote: Same Comm. Hill: Slightly More | N. Coyote: Same Comm. Hill: Slightly More | N. Coyote: Same Comm. Hill: Slightly More | N. Coyote: Same Comm. Hill: Slightly More |
| Population and Housing/ Growth Inducement | Same | Less | Less | LTS | More | Same |
| Greenhouse Gas Emissions (2035 Goal) | Same/ More[2] | Less | Less | Less | More | Less |

[1]Existing 2040 General Plan without a GGRS through 2035.
[2]Projected total emissions considering statewide measures would be roughly the same, although emission reductions from local GGRS could be incrementally reduced where less while the emissions per service population would increase.
LTS: Less Than Significant Impact
Less = Substantial impact reduction compared to the 2040 General Plan project, but not to a less than significant level.
More = Substantially greater impact than 2040 General Plan project.

**Environmentally Superior Alternative(s)**

The No Project Alternative (2040 General Plan without GGRS) is not environmentally superior to the project.

The 2040 General Plan PEIR identified the Scenario 1 Alternative as environmentally superior alternative to the 2040 General Plan because it provides for a lower amount of total growth capacity, which in turn would produce lesser amounts of vehicle traffic (VMT) and lesser air quality impacts. The Scenario 1 Alternative overall is environmentally superior since transportation, noise, air quality, biological resources (indirect effects), and GHG emissions in 2035 impacts would be reduced, although not to a less than significant level. The conclusion in the 2040 General Plan PEIR regarding the Scenario 1 Alternative have not changed based upon the supplemental information on greenhouse house emissions presented in this Supplemental PEIR.

*This page intentionally left blank*

# 1.0 INTRODUCTION

## 1.1 PURPOSE OF THE ENVIRONMENTAL REVIEW

This document has been prepared by the City of San José as the Lead Agency in conformance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines. The purpose of this Supplemental Program Environmental Impact Report (Supplemental PEIR) is to inform decision-makers and the general public of the physical environmental effects (specifically greenhouse gas emissions) which might result from implementation of the Envision San José 2040 General Plan (2040 General Plan).

This EIR will be a Supplemental PEIR to the *Envision San José 2040 General Plan Final Program EIR* (2040 General Plan PEIR) certified by the San José City Council in 2011. In a stipulated judgment of dismissal of *California Clean Energy Committee (CCEC) v. City of San José* (Case Number: 1-11-CV-212623) dated April 16, 2015, the City of San José agreed to prepare a Supplemental PEIR to supplement the information included in the 2040 General Plan Final PEIR regarding greenhouse gas emissions and global climate change.

The stipulated judgment of dismissal specifically calls for:

1. An analysis of the Envision San José 2040 General Plan for consistency with the emission reduction measures applicable to local governments as provided in the December 2008 Climate Change Scoping Plan from the California Air Resources Board, and the 2014 Scoping Plan Update, as relevant, and a determination in good faith whether there are significant impacts due to General Plan inconsistency, if any, with applicable measures in the 2008 Climate Change Scoping Plan.

2. An analysis of greenhouse gas emissions from the planning area by comparing citywide baseline emissions of 7.6 million metric tons (MMT) in 2008 with citywide projected emissions in 2035, and a determination in good faith whether a cumulatively significant contribution to global climate change would result.

A discussion and analysis of feasible and enforceable mitigation for a cumulatively considerable contribution to a significant cumulative climate impact, is also called for in the stipulated judgment. Identifying feasible mitigation for impacts is consistent with requirements in Sections 15126.4(a) and 15126.4(c) of the CEQA Guidelines.

In accordance with CEQA and the stipulated judgment, this Supplemental PEIR provides objective information regarding the environmental consequences of the project to the decisions makers who will be considering and reviewing the greenhouse gas emissions (GHG) analysis and GHG reduction components of the project.

### 1.1.1 Incorporation by Reference

Per Section 15150 of the State CEQA Guidelines, an EIR may incorporate by reference all or portions of another document which is a matter of public record or is generally available to the public. This Supplemental PEIR incorporates by reference the *Envision San José 2040 General Plan Program Environmental Impact Report* (SCH No. 2009072096), including all appendices thereto (2040 General Plan PEIR), certified by the San José City Council on November 1, 2011, with the exception of *Section 3.15 Greenhouse Gas Emissions*. The text and graphics in the 2040 General Plan PEIR was relied upon or consulted in the preparation of this Draft Supplemental PEIR.

This Draft Supplemental PEIR also references previously adopted regional and statewide plans and programs, regulatory standards, and background studies in its analysis, such as the City's Municipal Code, the Bay Area Air Quality Management District (BAAQMD) Clean Air Plan, and BAAQMD's CEQA Air Quality Guidelines and supporting information. These documents and other referenced source material in this Draft Supplemental PEIR will be made available to the public for inspection at the City of San José upon request.

## 1.2 ORGANIZATION OF THE DRAFT SUPPLEMENTAL PROGRAM EIR

The Draft Supplemental PEIR includes the following sections:

***Summary***
The Executive Summary of the Draft Supplemental PEIR, which precedes this introduction, includes a brief description of the proposed project and summarizes the project's greenhouse gas emissions impacts, mitigation measures, and alternatives to the project. The summary also briefly describes any known areas of public controversy and the views of local groups.

***Section 1.0 Introduction***
This section provides a general overview of the CEQA process, describes the public participation process and opportunities for input, contains a summary of responses to the Draft Supplemental PEIR Notice of Preparation (NOP), and outlines the contents of the Draft Supplemental PEIR.

***Section 2.0 Project Location and Background***

This section provides an overview of the location of the project as well as a discussion of the land uses, growth areas, and other components of San José's 2040 General Plan.

***Section 3.0 Description of the Proposed Project***
Information on the assumptions about implementation of the project are addressed in this section. This section also describes the intended uses of the Supplemental PEIR, and lists the applicant objectives for the project.

***Section 4.0 Environmental Setting, Impacts, and Mitigation***
The Environmental Setting, Impacts, and Mitigation section is limited to a discussion of greenhouse gas emissions. It includes descriptions of the physical setting of the project area,

identifies environmental impacts resulting from the project, and identifies mitigation measures for the environmental impacts examined in the Supplemental PEIR. The Draft Supplemental PEIR identifies proposed mitigation measures for significant (cumulative) impacts in this section and briefly evaluates the expected effectiveness/feasibility of these measures.

***Section 5.0 Significant Unavoidable Impacts***

A significant unavoidable impact is an impact that cannot be mitigated to a less than significant level if the project is implemented, because no feasible mitigation has been identified. This section lists any significant unavoidable impacts that could result from implementation of the 2040 General Plan.

***Section 6.0 Alternatives to the Proposed Project***

This section identifies a reasonable range of alternatives to the 2040 General Plan which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen the significant impacts of the project. The environmental impacts associated with each alternative are summarized and a comparison of the impacts to those of the project presented. Each of the alternatives is assessed to determine its ability to meet the project objectives.

***Section 7.0 References***

This section lists the references, persons, and organizations consulted during preparation of the Draft Supplemental PEIR.

***Section 8.0 List of Preparers***

This section lists the lead agency staff and consultants who participated in preparation of the Draft Supplemental EIR.

***Appendices***

These attachments to the Draft Supplemental PEIR include the Notice of Preparation, responses to the Notice of Preparation, and technical appendices to the Draft Supplemental PEIR.

## 1.3 ENVIRONMENTAL REVIEW PROCESS AND PUBLIC PARTICIPATION

### 1.3.1 Supplemental PEIR Scoping

In accordance with Section 15082 of the CEQA Guidelines, a Notice of Preparation (NOP) was circulated to the public and responsible agencies for input regarding the analysis in this Supplemental PEIR for 30 days, from June 9, 2015 to July 8, 2015. This Supplemental PEIR addresses those environmental issues related to greenhouse gas emissions which were raised by responsible agencies and the public in response to the NOP.

A copy of the Notice of Preparation for the Supplemental PEIR is included in Appendix A of this document.

#### 1.3.1.1 *Summary of Responses to Notice of Preparation*

The City of San Jose received one letter in response to the NOP and scoping process, in addition to a letter acknowledging receipt of the NOP from the State Clearinghouse. A copy of this letter is reproduced in Appendix A, and brief responses are provided below.

**Letter from the California Department of Transportation (DOT), Dated July 8, 2015**

*Lead Agency*

The California Department of Transportation (Caltrans) notes that the City of San José, as the lead agency is responsible for all project mitigation, including any needed improvements to State highways. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be discussed for all proposed mitigations measures.

Response: This Supplemental PEIR addresses greenhouse gas emission impacts of the 2040 General Plan and Greenhouse Gas Reduction Strategy. Specific mitigation to offset project level transportation impacts, including fair share contributions to specific State highway improvements, are not within the scope of this Supplemental PEIR and are not addressed further.

*Traffic Impacts*

Caltrans requests that the General Plan recognize that state facilities which transverse the City's jurisdiction are the shared responsibility of the State and the City and asks that this be recognized in the General Plan.

Caltrans describes that one of its responsibilities is to collaborate with local agencies to avoid, eliminate, or reduce to insignificance potential adverse impacts by local development on State highways. They note strategies may include increasing capacity and efficiency of State facilities and project level plans. They also recommend that the General Plan include discussion of contributions to specific express lanes projects (on State Route 237 and U.S. Highway 101) as a means to mitigate transportation impacts.

The traffic impacts comments also note that Caltrans views all transportation improvements as opportunities to improve safety, access, and mobility for travelers and that bicycle, pedestrian, and transit modes are integral element of the transportation system as part of Caltrans' Complete Streets policy.

Response: As noted in Section 2.2, *Project Background*, this Supplemental PEIR reevaluates the projected greenhouse gas emissions impacts of implementation of the City of San José's 2040 General Plan. The transportation impacts of implementation of the 2040 General Plan were previously addressed in the Envision 2040 General Plan Final PEIR. Transportation policies that would support the City's targets for greenhouse

gas reduction, including policies that support the use of bicycle, pedestrian, and transit modes of travel and vehicle miles traveled (VMT) are noted in Section 4.4, *Greenhouse Gas Emissions and Global Climate Change.*

The two Express Lanes Projects mentioned by Caltrans are designed to increase the efficiency of existing roadways and express lanes may have the capacity to accommodate more vehicles. More efficient use of existing roadways is accomplished by encouraging transit and carpools and allowing solo drivers to pay a fee to access express lanes. Other listed effects and benefits are providing for fast, reliable travel through the use of dynamic pricing and revenue to enhance transit improvement and provide enforcement by the California Highway Patrol.[1,2] While reducing congestion may reduce the higher greenhouse gas emissions of stop and go traffic, [3] a recent Initial Study/Environmental Assessment prepared for the I-80 Express Lanes project in Solano County found that, using current methodologies, implementation of that express lanes project was not projected to reduce greenhouse gas emissions.[4] The analysis concluded this is because there would be higher traffic demand for the facility, as seen by the increased VMT associated with the Express Lanes relative to a future No Build Alternative. In addition, the analysis noted that the model used does not account for increased greenhouse gas emissions associated with rapid accelerations, such as those occurring during congestion, and instead estimates emissions by average trip speed. Therefore, more work and study is required before contributions to Express Lanes projects can be included as a measure for reducing greenhouse gases from travel associated with implementation of the City's General Plan (refer to Section 4.44 *Mitigation and Avoidance Measures for Greenhouse Gas Emissions Impacts*).

The adopted 2040 General Plan includes a number of policies related specifically to transportation safety, access and mobility based on concepts of Complete Streets and a balanced transportation system (refer to Chapter 6 of the 2040 General Plan). Such transportation policies in the General Plan that are incorporated in the Greenhouse Gas Reduction Strategy as means of reducing greenhouse gas emission are noted in Section 4.4 of this Supplemental PEIR.

---

[1] Valley Transportation Authority. "101 Express Lanes". Accessed August 3, 2015. Available at: <http://www.vta.org/projects-and-programs/highway/us-101-express-lanes>.

[2] Valley Transportation Authority. *Fact Sheet: Express Lanes, State Route 237 Express Lanes Project.* Accessed August 3, 2015. Available at: <http://www.vta.org/sfc/servlet.shepherd/document/download/069A0000001FiofIAC>.

[3] The National Transportation Research Board of the National Academies reported in 2013 that the highest levels of the greenhouse gas carbon dioxide ($CO_2$), from mobile sources, such as automobiles occur at stop-and-go speeds (0-25 miles per hour) and speeds over 55 miles per hour; the most severe emissions occur from 0-25 miles per hour. Greenhouse gas emissions, particularly $CO_2$, *may* be reduced to the extent that a project relieves congestion by improving travel times in high congestion travel corridors. Available at: <http://onlinepubs.trb.org/onlinepubs/trnews/trnews268.pdf>.

[4] California Department of Transportation and Solano Transportation Authority. 2015. *I-80 Express Lanes Project, Solano County, Initial Study with Proposed Mitigated Negative Declaration/ Environmental Assessment.* (Chapter 2.5), p. 2.5-8, 2.5-9. Available at: <http://www.dot.ca.gov/dist4/documents/80expresslanesproject/2.5_CEQA_Climate_Change.pdf>

*CEQA Streamlining*

Caltrans notes that if future projects do not qualify for CEQA streamlining under Senate Bill 375 or if there are impacts to the State Highway System and adjacent road network, Caltrans requests use of *Caltrans Guide for the Preparation of Traffic Impact Studies.*

Response: The City of San José has Transportation Impact Analysis (TIA) Guidelines that are updated periodically outside of the General Plan Update process. As noted in the previous response, transportation impacts or general transportation policies are not being addressed in this Supplemental PEIR.

*Vehicle Trip Reduction*

Caltrans commends the City for locating needed housing, jobs and neighborhood services near major mass transit centers, with connecting streets configured to facilitate walking and biking. They also commend and encourage further development by the City of its Transportation Demand Management (TDM) Program, which promotes usage of public transit and reducing vehicle trips on the State Highway System.

Caltrans recommends TDM Programs include or could include:

- documentation for monitoring vehicle trip reduction with annual reports to demonstrate trip reduction
- continuing surveys of travel patterns of employees
- lower parking ratios
- car-sharing programs
- transit subsidies
- transit passes,
- secure bicycle parking and showers for residents and employees
- carpooling with preferred parking

Caltrans also recommends working with the Santa Clara Valley Transportation Authority (VTA) to reduce headway times on the bus lines serving the City.

Response: General Plan Policy TR-7.1 calls for employer trip reduction programs for large employment sites as appropriate. The measures listed above are items that may be employed as part of TDM programs and several are reflected in General Plan policies and the Greenhouse Gas Reduction Strategy as trip reduction measures (e.g., GP Policy TR-7.2). Proposed modifications to existing General Plan Policies TR-7.1 and TR-7.2 that address TDM programs are listed in Section 4.4.4.5 starting on page 107.

Policies in the City's 2040 General Plan and measures in the Greenhouse Gas Reduction Strategy focus on development patterns and the provision of pedestrian and bicycle connections that encourage and facilitate transit use. The City

coordinates with VTA on transit issues; however, headway times are the purview of that agency.

*Habitat Restoration and Management*

Caltrans requests that project level activities related to habitat restoration and management be done in coordination with local and regional Habitat Conservation Plans and with Caltrans, where there are shared stewardship responsibilities for habitats, species and/or migration routes.

Response: The City of San José is a local partner in the Santa Clara Valley Habitat Agency and projects within the areas of the City covered by the Habitat Plan and within or adjacent to Caltrans rights-of-way would be coordinated with both agencies.

This supplemental review is a program-level EIR that specifically addresses environmental effects of the General Plan related to greenhouse gas emissions. Therefore, implementation of the Santa Clara Valley Habitat Conservation Plan and coordination with Caltrans on future projects is not addressed further.

*Voluntary Contribution Program*

Caltrans notes that State facilities in the City of San José are critical to regional and interregional traffic in the San Francisco Bay region and the General Plan is likely to have a significant regional impact to the already congested State Highway System.

Caltrans encourages the City of San José to participate in VTA's voluntary contribution program for the impact of future growth on the regional transportation system. Caltrans notes that contributions would be used to help fund regional transportation programs that improve the transportation system to lessen future traffic congestion, improve mobility by reducing time delays, and maintain reliability on major roadways through the San Francisco Bay Area.

Response: The 2040 General Plan PEIR disclosed that segments of freeway facilities operated by Caltrans, which are not within the City's control, would experience impacts from implementation of the 2040 General Plan. Impacts to roadways in adjacent jurisdictions (which include Caltrans facilities) were determined to be significant and unavoidable. These transportation impacts, and possible additional program mitigation for transportation impacts, are not the subject of this Supplemental PEIR.

One of the stated benefits of VTA's voluntary contribution program is improving mobility by reducing time delays and congestion. If this could be shown to result in a reduction in overall vehicle hours traveled and stop and go speeds when emissions are greater, it could conceivably reduce greenhouse gas emissions.

While future land use projects may include making voluntary contributions to the VTA's voluntary contribution program for a range of purposes, this program does not appear to represent a feasible programmatic means of reducing greenhouse gas emissions, however. Under CEQA, for this to represent feasible mitigation,

voluntary contributions by future projects to improve the roadway system would need to demonstrate that greenhouse emissions would be reduced by reducing time delays and that there would not be a secondary effect of increase vehicle miles traveled if congestion was reduced. As noted in the response under the heading *Traffic Impacts,* more work and study is required before contributions to Express Lanes projects can be included as a measure for reducing greenhouse gases from travel associated with implementation of the City's General Plan (refer to Section 4.44 *Mitigation and Avoidance Measures for Greenhouse Gas Emissions Impacts*).

For a lead agency to make findings that a measure within the responsibility and jurisdiction of another public agency is feasible and would mitigate a significant effect, they must have been adopted by the agency or substantial evidence must exist to show it can and should be adopted by the other agency [CEQA Guidelines 15091(a)]. Feasible mitigation measures must be fully enforceable through permit conditions or other legally binding instruments (CEQA Guidelines 15126.4) and capable of being accomplished in successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors (CEQA Guidelines 15364). Because greenhouse gas reductions from participation in the voluntary contribution program cannot be assured at a program level and implementation of the voluntary program measures could not be assured to reduce greenhouse gas emission by the City of San Jose, the voluntary contribution program is not listed as a new mitigation measure in *Section 4.4.4 Mitigation and Avoidance Measures for Greenhouse Gas Emissions Impacts* of this Supplemental PEIR.

*References*

Caltrans recommends that the City include the *California Transportation Plan 2040* and the *Interregional Transportation Strategic Plan (IRSP) Update* (October 2013), as references. They note that interregional facilities are the shared responsibility of Caltrans and the City. They also request that the reference to the Metropolitan Transportation Commission's (MTC) Regional Transportation Plan (RTP), which is currently titled *Plan Bay Area 2040,* and not the previous RTP *Transportation 2035.*

Response: A discussion of the draft *California Transportation Plan 2040* and *IRSP*, as they relate to reducing greenhouse gas emissions, can be found in Section *4.4.1.2,* starting on page 39. *Plan Bay Area 2040,* the current RTP for the San Francisco Bay Area, is also addressed in *Section 4.4.1.2 Regulatory Framework* (page 38) and *Section 4.4.4.5 Consistency with Plans, Programs, and Regulations* starting on page 103.

### 1.3.1.2 *Public Scoping Meeting*

In addition to the circulation of the NOP to the public and responsible agencies, the project was discussed at an EIR scoping meeting held on Thursday June 18, 2015 at the San José City Hall, when the public was invited to make comments on the project. The scoping meeting was attended by two members of the public. Issues of concern noted during the scoping meeting were the effects of

global climate change on water quality and water supply, urban heat island effects, City development of a baseline of its urban forest tree canopy, and effective monitoring of Urban Villages for GHG and air pollutant emissions.

### 1.3.2 Public Participation

The City of San José, as required under CEQA, encourages public participation in the environmental review process. Opportunities for comments by public agencies and the public include responding to the Notice of Preparation of the Draft Supplemental PEIR, written comments on this Draft Supplemental PEIR, and presentation of written or verbal comments at future public hearings.

Under CEQA, the Lead Agency is required, after completion of a Draft Supplemental EIR, to consult with and obtain comments from public agencies having jurisdiction by law with respect to the proposed project, and to provide the general public with an opportunity to comment on the Draft Supplemental PEIR. Written comments concerning the environmental review contained in this Draft Supplemental PEIR must be submitted to the Lead Agency at the following address during the 45-day public review and comment period. Written and verbal comments may also be presents at scheduled public hearings on certification of the Final Supplemental PEIR.

City of San Jose Planning Division,
Attn: David Keyon, Planner II
200 East Santa Clara Street, Tower 3rd Floor San José, CA 95113-1905
e-mail: david.keyon@sanjoseca.gov

This SEIR and all documents referenced in it are available for public review in the San José Department of Planning, Building and Code Enforcement during normal business hours.

`

# 2.0 PROJECT LOCATION AND BACKGROUND

## 2.1 PROJECT LOCATION

The City of San José is located in the Santa Clara Valley at the southern tip of the San Francisco Bay. The *Envision San José 2040 General Plan* (2040 General Plan) provides a vision for future growth and development located within the City's existing Urban Growth Boundary (approximately 143 square miles) and also encompasses all areas with the City's Sphere of Influence (approximately 280 square miles). The City's location within the San Francisco Bay region and South Bay area are shown on Figures 2.1-1 and 2.1-2, respectively.

## 2.2 PROJECT BACKGROUND

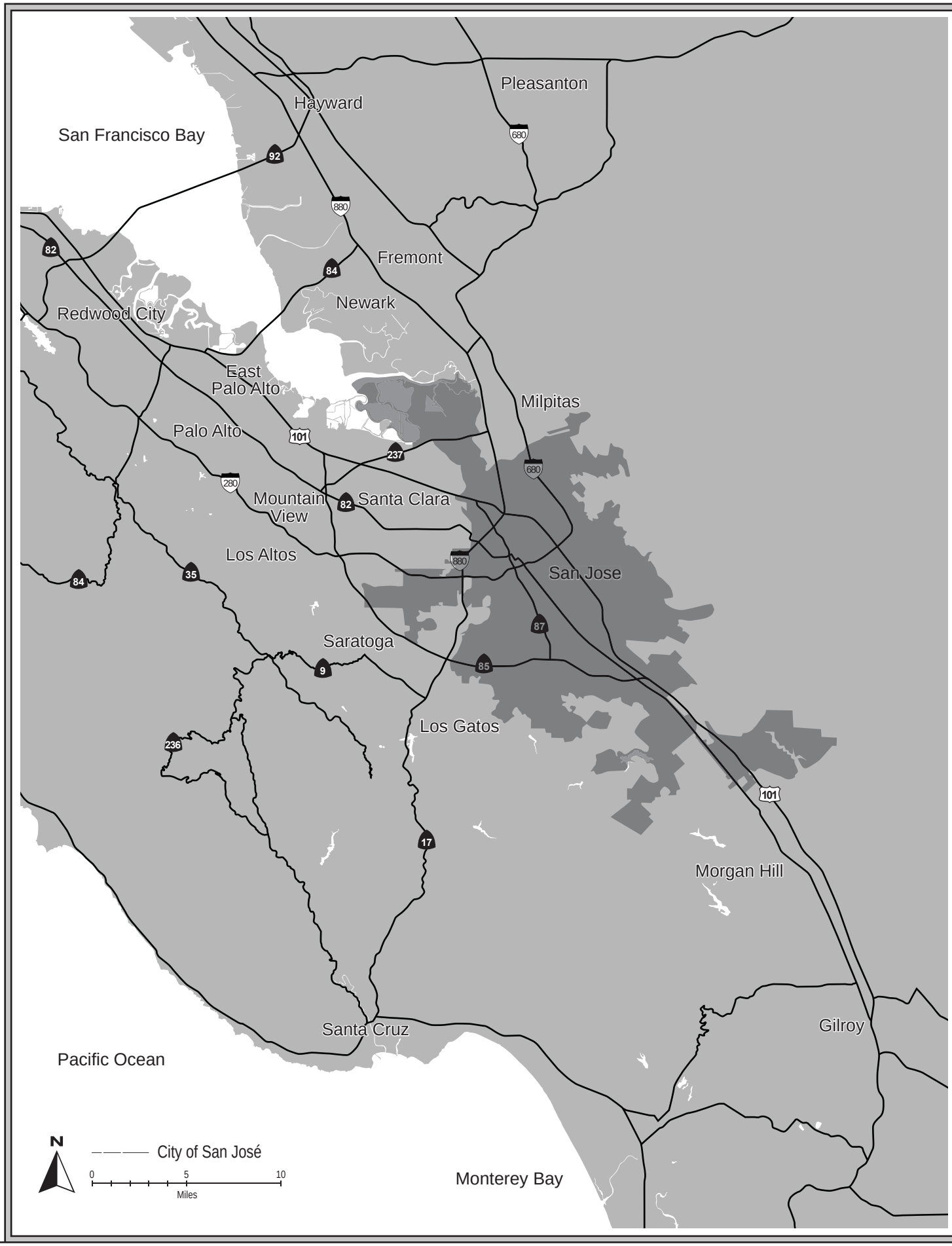
This Supplemental PEIR reevaluates the projected greenhouse gas emissions impacts of implementation of the City of San José's 2040 General Plan. No changes to the 2040 General Plan land use and transportation assumptions are currently proposed from what was evaluated in the Envision 2040 General Plan Final PEIR.

The 2040 General Plan is a comprehensive update to the City's previous San Jose 2020 General Plan.[5] It is a long-term plan that describes the amount, type, and phasing of development needed to meet the City's social, economic and environmental goals. The General Plan is the policy framework for decision making on both private development projects and City capital expenditures. The 2040 General Plan contains:

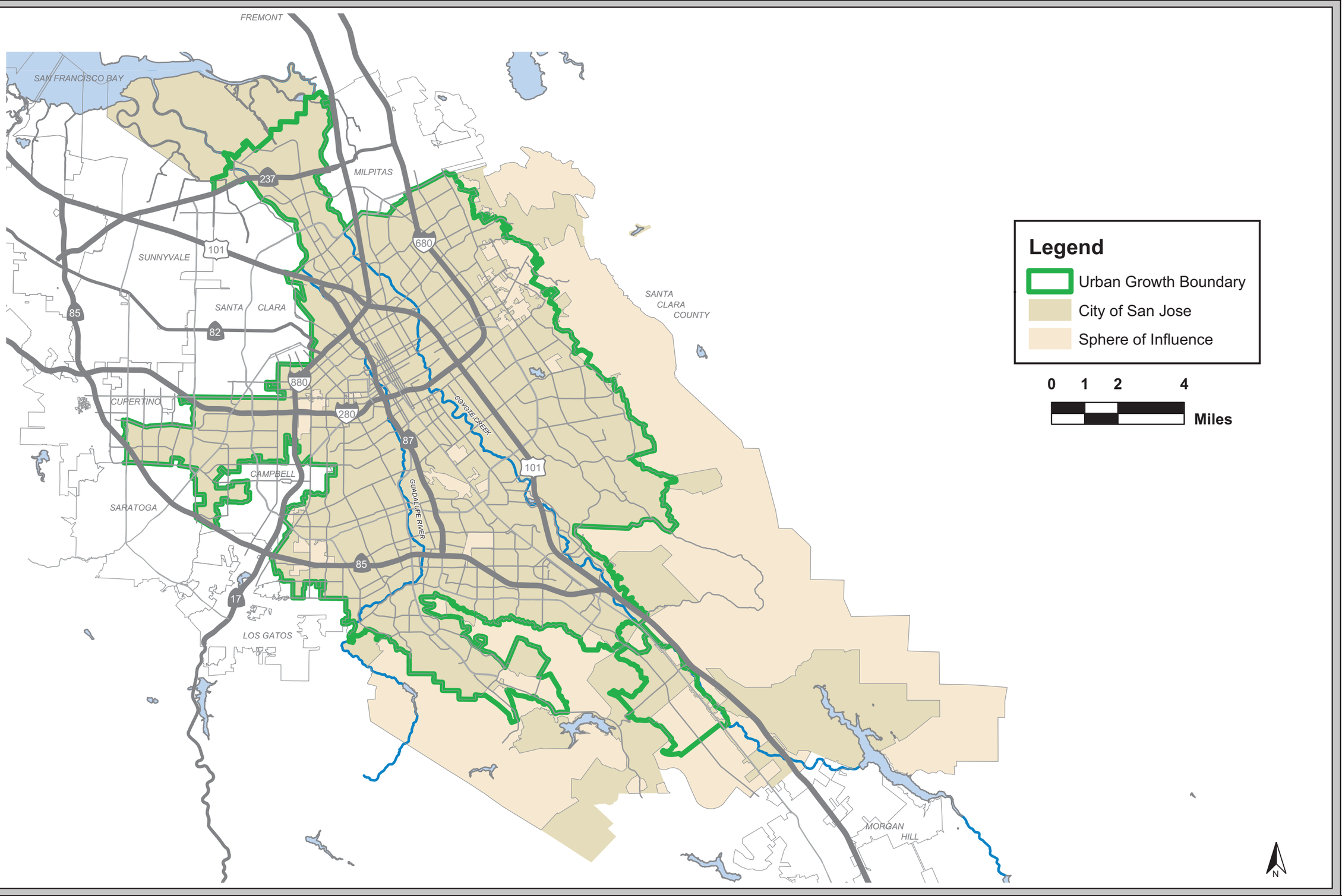
- Strategies to create a balanced mix of jobs and housing
- Strategies to address global warming and conserve natural resources
- Village strategies that create complete mixed-use communities
- Fiscally sustainable public service delivery goals
- Complete streets designed for all transportation modes, including bicycles and pedestrians
- Strategies to create healthy communities
- Art and cultural facilities and programs

The land use/transportation diagram and development assumptions adopted in 2011 included the addition of up to 120,000 new dwelling units and up to 470,000 new jobs within the City of San José. The 2040 General Plan primarily added growth capacity in focused areas of the City using a corridors and villages strategy. These locations were identified with the intent of creating an interconnected city by allowing for additional growth along multi-modal transportation corridors in order to link Downtown, high-intensity villages, and local serving neighborhood villages.

[5] City of San José. *Envision San José 2040 General Plan*. Accessed: May 4, 2015. Available at: <http://www.sanjoseca.gov/index.aspx?nid=1737>.




REGIONAL MAP FIGURE 2.1-1




VICINITY MAP

FIGURE 2.1-2

The Envision San José 2040 General Plan was adopted in 2011. A synopsis of the growth capacity and growth locations under the 2040 General Plan follows.

### 2.2.1 Growth Capacity Assumptions

The land use/transportation diagram and development assumptions adopted in 2011 includes the potential addition of up to 120,000 new dwelling units and up to 470,000 new jobs, supporting a population of approximately 1.3 million people by 2035. No changes are currently proposed from what was evaluated in the 2040 General Plan Final PEIR.

### 2.2.2 Growth Locations

A key strategy of the 2040 General Plan is to focus new growth capacity in specifically identified Growth Areas, while the majority of the City is not planned for additional growth or intensification. It focuses new growth in new Urban Village areas with a compact and dense form that support walking, provide opportunities for incorporating retail and other services in a mixed-use format, and support transit use. Figure 2.2-1 shows the identified locations for planned jobs and housing growth areas within the City and Table 2.2-1 lists the growth assumptions. No changes are currently proposed from what was evaluated in the Envision 2040 General Plan Final PEIR.

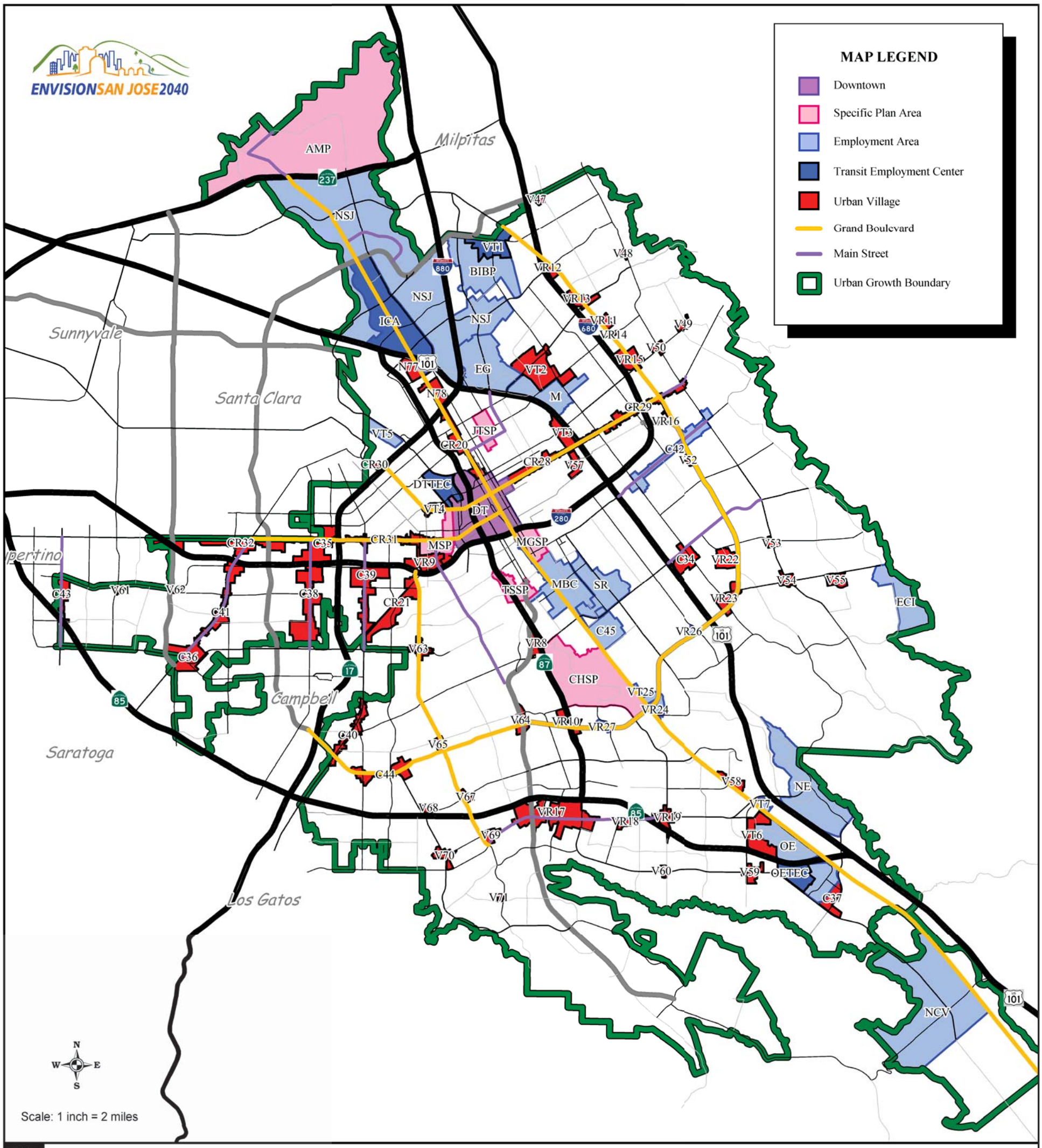
#### Urban Villages and Corridors

The areas identified for new growth in the 2040 General Plan and generally referred to as Urban Villages include BART/Caltrain Villages, Transit Villages and Corridors, Commercial Center Villages and Corridors, and Neighborhood Villages (refer to Figure 2.2-1). These Urban Villages are planned to provide a more urban, pedestrian-friendly, mixed-use living and working environment (urban village environment) that will be attractive to and better meet the needs of current and future San José residents, while reducing the potential environmental and fiscal concerns related to new job and housing growth.

Urban Village Planning Since 2011

There are over 60 Urban Village areas designated on the Planned Growth Diagram in the 2040 General Plan. Since 2011, a total of five Urban Village Plans have been approved by the City Council and additional Urban Village Plans are being developed, as summarized below.

*Approved Urban Village Plans.* An Urban Village Plan for Alum Rock from King Road to Interstate 680 was established as part of a rezoning on October 22, 2013. Four Urban Village Plans (Roosevelt Park Village, Little Portugal Village, Five Wounds Village and 24th Street Village, were approved by the San José City Council on November 19, 2013. The Roosevelt Park Village (Coyote Creek to 101 along E. Santa Clara Street) and the Little Portugal Village (Alum Rock from 101 to King Road) are expected to redevelop in the near term. The Five Wounds and 24th Street Villages (from Julian down to William Street) are anticipated to develop once BART is extended to the area and a station is constructed. The location of a BART Station near these two villages is currently pending.




## KEY

**Downtown**

DT = Downtown
DTTEC = Downtown Transit Employment Center

**Specific Plan Areas**

AMP = Alviso (Master Plan)
CHSP = Communications Hill
JTSP = Jackson-Taylor (Residential Strategy)
MGSP = Martha Gardens
MSP = Midtown
TSSP = Tamien Station Area

**Employment Areas**

BIBP = Berryessa International Business Park
ECI = Evergreen Campus Industrial
EG = East Gish
ICA = Industrial Core Area
M = Mabury
MBC = Monterey Business Corridor
NCV = North Coyote Valley
NE = New Edenvale
NSJ = North San Jose
OE = Old Edenvale
OETEC = Old Edenvale Transit Employment Center
SR = Senter Road

**Employment Areas (continued)**

C42 = Story Rd
C45 = County Fairgrounds

VR16 = S. Capitol Av/Capitol Ex
VR24 = Monterey Hy/Senter Rd
VR26 = E. Capitol Ex/McLaughlin Av
VR27 = W. Capitol Ex/Vistapark Dr

VT1 = Lundy/Milpitas BART
VT5 = Santa Clara/Airport West (FMC)
VT7 = Blossom Hill Rd/Monterey Rd
VT25 = W. Capitol Ex/Monterey Rd

**Urban Villages**

C34 = Tully Rd/S. King Rd
C35 = Valley Fair/Santana Row
C36 = Paseo de Saratoga
C37 = Santa Teresa Bl/Bernal Rd
C38 = Winchester Bl
C39 = S. Bascom Av (North)
C40 = S. Bascom Av (South)
C41 = Saratoga Av
C43 = S. De Anza Bl
C44 = Camden Av/Hillsdale Av

**Urban Villages (continued)**

CR20 = N. 1st St
CR21 = Southwest Ex
CR28 = E. Santa Clara St
CR29 = Alum Rock Av
CR30 = The Alameda (West)
CR31 = W. San Carlos St
CR32 = Stevens Creek Bl

N77 = Rincon South 1
N78 = Rincon South 2

V47 = Landess Av/Morrill Av
V48 = Piedmont Rd/SierraRd
V49 = McKee Rd/Toyon Av
V50 = McKee Rd/White Rd
V52 = E. Capitol Ex/Foxdale Dr
V53 = Quimby Rd/S. White Rd
V54 = Aborn Rd/San Felipe Rd
V55 = Evergreen Village
V57 = S. 24th St/William Ct
V58 = Monterey Rd/Chynoweth Av
V59 = Santa Teresa Bl/Cottle Rd
V60 = Santa Teresa Bl/Snell Av
V61 = Bollinger Rd/Miller Av
V62 = Bollinger Rd/Lawrence Ex
V63 = Hamilton Av/Meridian Av

**Urban Villages (continued)**

V64 = Almaden Ex/Hillsdale Av
V65 = Foxworthy Av/Meridian Av
V67 = Branham Ln/Meridian Av
V68 = Camden Av/Branham Ln
V69 = Kooser Rd/Meridian Av
V70 = Camden Av/Kooser Rd
V71 = Meridian Av/Redmond Av

VR8 = Curtner Light Rail/Caltrain
VR9 = Race St Light Rail
VR10 = Capitol Ex/Hy 87 Light Rail
VR11 = Penitencia Creek Light Rail
VR12 = N. Capitol Av/Hostetter Rd
VR13 = N. Capitol Av/Berryessa Rd
VR14 = N. Capitol Av/Mabury Rd
VR15 = N. Capitol Av/McKee Rd
VR17 = Oakridge Mall and Vicinity
VR18 = Blossom Hill Rd/Cahalan Av
VR19 = Blossom Hill Rd/Snell Av
VR22 = Arcadia/Eastridge
VR23 = E. Capitol Ex/Silver Creek Rd

VT2 = Berryessa BART
VT3 = Five Wounds BART
VT4 = The Alameda (East)
VT6 = Blossom Hill Rd/Hitachi



PLANNED GROWTH DIAGRAM FIGURE 2.2-1

| Table 2.2-1: Planned Job Capacity and Housing Growth Areas by Horizon (3 Horizons)<br>839,450 Jobs and 429,350 Dwelling Units; 1.3 J/ER<br>*Growth Above Existing: 470,000 Jobs & 120,000 DU* | | | |
|---|---|---|---|
| | **Acres** | **Planned Job Capacity** | **Planned Housing Yield (DU)** |
| **Total Plan Growth Capacity** | | **470,000** | **120,000** |
| ***Downtown*** | | | |
| Downtown (v) | | 48,500 | 10,360 |
| *Portion Housing Capacity Already Entitled* | | | *1,139* |
| **Downtown Sub-Total** | **1,920** | **48,500** | **10,360** |
| ***Specific Plan Areas*** | | | |
| Communications Hill Specific Plan | 942 | 1,700 | 2,775 |
| Jackson-Taylor Residential Strategy | 109 | 100 | 1,190 |
| Martha Gardens Specific Plan | 145 | - | 1,760 |
| Midtown Specific Plan | 219 | 1,000 | 1,600 |
| Tamien Station Area Specific Plan | 149 | 600 | 1,060 |
| Alviso Master Plan (v) | 11,443 | 25,520 | 70 |
| Evergreen Specific Plan (not including V55) | 879 | - | 25 |
| **Specific Plan Sub-Total** | | **28,920** | **8,480** |
| ***Employment Land Areas*** | | | |
| Monterey Business Corridor (v) | 421 | 1,095 | - |
| New Edenvale | 754 | 16,000 | - |
| Old Edenvale Area (Bernal) | 474 | 31,000 | - |
| North Coyote Valley | 1,722 | 50,000 | - |
| Evergreen Campus Industrial Area | 368 | 12,000 | - |
| North San Jose (including Rincon South) | 4,382 | 100,000 | 32,640 |
| *Portion Housing Capacity Already Entitled* | | | *8,640* |
| VT1 - Lundy/Milpitas BART | 150 | 28,400 | - |
| Berryessa / International Business Park (v) | 448 | 10,155 | - |
| Mabury (v) | 300 | 2,265 | - |
| East Gish (v) | 442 | 2,300 | - |
| Senter Road (v) | 345 | 2,275 | - |
| VT5 - Santa Clara / Airport West (FMC) | 194 | 1,600 | - |
| **Employment Land Sub-Total** | | **257,090** | **32,640** |
| ***BART/Caltrain Villages*** | | | |
| VT2 - Berryessa BART / Berryessa Rd/Lundy Av (v) | 250 | 22,100 | 4,814 |
| *Portion Housing Capacity Already Entitled* | | | *3,884* |
| VT3 - Five Wounds BART | 32 | 4,050 | 845 |
| VT4 - The Alameda (East) | 19 | 1,610 | 411 |
| *Portion Housing Capacity Already Entitled* | | | *9* |
| VT6 - Blossom Hill / Hitachi | 302 | - | 2,930 |
| *Portion Housing Capacity Already Entitled* | | | *2,930* |
| VT7 - Blossom Hill / Monterey Rd | 24 | 1,940 | - |
| **BART/Caltrain Villages Sub-Total** | | **29,700** | **9,000** |
| ***Light Rail Villages (Existing LRT)*** | | | |
| VR8 - Curtner Light Rail/Caltrain (v) | 43 | 1,380 | 1,440 |
| VR9 - Race Street Light Rail (v) | 78 | | |
| A (west of Sunol) | | 2,207 | 1,937 |
| B (Reed & Graham Site) | | 700 | 675 |
| *Portion Housing Capacity Already Entitled* | | | *342* |
| VR10 - Capitol/87 Light Rail (v) | 48 | 2,768 | 1,195 |
| VR11 - Penitencia Creek Light Rail | 30 | 1,013 | 920 |
| VR12 - N. Capitol Av/Hostetter Rd (v) | 23 | 500 | 1,230 |

| Table 2.2-1: Planned Job Capacity and Housing Growth Areas by Horizon (3 Horizons)<br>839,450 Jobs and 429,350 Dwelling Units; 1.3 J/ER<br>*Growth Above Existing: 470,000 Jobs & 120,000 DU* | | | |
|---|---|---|---|
| | **Acres** | **Planned Job Capacity** | **Planned Housing Yield (DU)** |
| VR13 - N. Capitol Av/Berryessa Rd (v) | 49 | 2,022 | 1,465 |
| VR14 - N. Capitol Av/Mabury Rd | 30 | 250 | 700 |
| VR15 - N. Capitol Av/McKee Rd (v) | 55 | 2,812 | 1,930 |
| VR16 - S. Capitol Av/Capitol Expy (moved to other) | 2 | - | - |
| VR17 - Oakridge Mall and Vicinity (v) | 323 | | |
| A (Cambrian/Pioneer) | | 3,375 | 2,712 |
| B (Edenvale) | | 5,715 | 4,591 |
| VR18 - Blossom Hill Rd/Cahalan Av | 28 | 1,780 | 600 |
| VR19 - Blossom Hill Rd/Snell Av | 45 | 2,598 | 1,083 |
| *Portion Housing Capacity Already Entitled* | | | *8* |
| **Light Rail Villages (Existing LRT) Sub-Total** | | **27,120** | **20,478** |
| ***Light Rail Corridors (Existing LRT)*** | | | |
| CR20 - N. 1st Street | 66 | 2,520 | 1,678 |
| *Portion Housing Capacity Already Entitled* | | | *333* |
| CR21 - Southwest Expressway (v) | 132 | 4,965 | 3,007 |
| *Portion Housing Capacity Already Entitled* | | | *339* |
| **Light Rail Corridors (Existing LRT) Sub-Total** | | **7,485** | **4,685** |
| ***Light Rail Villages (Planned LRT)*** | | | |
| VR22 - Arcadia/Eastridge (potential) Light Rail (v) | 78 | 3,690 | 250 |
| VR23 - E. Capitol Expy/Silver Creek Rd | 58 | 900 | 1,000 |
| **Light Rail Villages (Planned LRT) Sub-Total** | | **4,590** | **1,250** |
| ***Light Rail Corridors (Planned BRT/LRT)*** | | | |
| CR28 - E. Santa Clara Street | | | |
| A (West of 17th Street) | 64 | 795 | 850 |
| B (5WBT Plan Area) | 47 | 605 | 650 |
| CR29 - Alum Rock Avenue | | | |
| A (5WBT Plan Area) | 18 | 270 | 310 |
| B NBD Area | 72 | 870 | 1,010 |
| C (East of 680) | 61 | 1,010 | 1,175 |
| CR30 - The Alameda (West) | 16 | 440 | 400 |
| CR31 - W. San Carlos Street | | | |
| A (East) | 48 | 380 | 480 |
| B (Mid) | 32 | 260 | 330 |
| C (West) | 39 | 340 | 435 |
| CR32 - Stevens Creek Boulevard | | | |
| A (East) | 78 | 700 | 1,300 |
| B (Mid) | 116 | 950 | 1,750 |
| C (West) | 75 | 750 | 810 |
| **Light Rail Corridors (Planned BRT/LRT) Sub-Total** | | **7,370** | **9,500** |
| ***Commercial Center Villages & Corridors*** | | | |
| C34 - Tully Rd/S. King Rd | 90 | 1,900 | 1,000 |
| C35 - Valley Fair/Santana Row and Vicinity (v) | 116 | 2,410 | 2,635 |
| *Portion Housing Capacity Already Entitled* | | - | *725* |
| C36 - Paseo de Saratoga and Vicinity | 140 | 3,000 | 2,500 |
| C37 - Santa Teresa Bl/Bernal Rd | 56 | 1,500 | 700 |
| C38 - Winchester Boulevard | 216 | 4,600 | 2,000 |
| C39 - S. Bascom Avenue (North) | 62 | 1,440 | 1,560 |
| C40 - S. Bascom Avenue (South) (v) | 63 | 1,705 | 805 |

| Table 2.2-1: Planned Job Capacity and Housing Growth Areas by Horizon (3 Horizons)<br>839,450 Jobs and 429,350 Dwelling Units; 1.3 J/ER<br>*Growth Above Existing: 470,000 Jobs & 120,000 DU* | | | |
|---|---|---|---|
| | **Acres** | **Planned Job Capacity** | **Planned Housing Yield (DU)** |
| *Portion Housing Capacity Already Entitled* | | - | *74* |
| C41 - Saratoga Avenue (v) | 100 | 3,605 | 1,115 |
| *Portion Housing Capacity Already Entitled* | | - | *89* |
| C43 - S. De Anza Boulevard (v) | 64 | 2,140 | 845 |
| *Portion Housing Capacity Already Entitled* | | - | *45* |
| C44 - Camden/Hillsdale Avenue | 90 | 3,500 | 1,000 |
| **Commercial Center Sub-Total** | | **25,800** | **14,160** |
| ***Neighborhood Villages*** | | | |
| V47 - Landess Av/Morrill Av | 16 | 600 | 270 |
| V48 - Piedmont Rd/Sierra Rd | 11 | 400 | 150 |
| V49 - McKee Rd/ Toyon Av | 13 | 400 | 180 |
| V50 - McKee Rd/White Rd (v) | 10 | 300 | 168 |
| *Portion Housing Capacity Already Entitled* | | | *7* |
| V52 - E. Capitol Expy/Foxdale Dr | 14 | 400 | 212 |
| V53 - Quimby Rd/S. White Rd | 16 | 500 | 225 |
| V54 - Aborn Rd/San Felipe Rd | 19 | 500 | 310 |
| V55 - Evergreen Village | 30 | 600 | 385 |
| V57 - S. 24th St/William Ct (v) | 9 | 415 | 217 |
| *Portion Housing Capacity Already Entitled* | | - | *67* |
| V58 - Monterey Rd/Chynoweth Rd | 26 | 1,200 | 120 |
| V59 - Santa Teresa Bl/Cottle Rd (v) | 31 | 1,090 | 500 |
| V60 - Santa Teresa Bl/Snell Av | 11 | 500 | 140 |
| V61 - Bollinger Rd/Miller Av | 13 | 400 | 160 |
| V62 - Bollinger Rd/Lawrence Expy | 5 | 200 | 70 |
| V63 - Hamilton Av/Meridian Av | 40 | 1,000 | 710 |
| V64 - Almaden Expy/Hillsdale Av | 24 | 800 | 370 |
| V65 - Foxworthy Av/Meridian Av | 16 | 700 | 250 |
| *Portion Housing Capacity Already Entitled* | | - | *55* |
| V67 - Branham Ln/Meridian Av | 18 | 650 | 310 |
| V68 - Camden Av/Branham Ln | 26 | 650 | 450 |
| V69 - Kooser Rd/Meridian Av | 20 | 850 | 350 |
| V70 - Camden Av/Kooser Rd (v) | 26 | 1,080 | 623 |
| V71 - Meridian Av/Redmond Av | 10 | 505 | 120 |
| **Neighborhood Villages Sub-Total** | | **13,740** | **6,290** |
| ***Other Identified Growth Areas*** | | | |
| Vacant Lands | 558 | 3,625 | 1,460 |
| Entitled & Not Built | 513 | - | 1,697 |
| Former Villages (no housing growth capacity) | | | |
| VT25 - W. Capitol Expy/Monterey Rd | 24 | 870 | - |
| VR16 - S. Capitol Av/Capitol Expy | 2 | 260 | - |
| VR24 - Monterey Hwy/Senter Rd | 35 | 1,280 | - |
| VR26 - E. Capitol Expy/McLaughlin Dr | 16 | 630 | - |
| VR27 - W. Capitol Expy/Vistapark Dr | 15 | 680 | - |
| C42 - Story Road (v) | 115 | 7,020 | - |
| C45 - County Fairgrounds | 184 | 4,120 | - |
| C46 - Meridian / Parkmoor | 21 | 1,200 | - |
| **Other Identified Growth Areas Sub-Total** | | **19,685** | **3,157** |
| **DU** = Dwelling Units (Occupied and Vacant) | | | |

*Urban Village Plans Currently Being Prepared.* Urban Village study sessions and workshops have been conducted for a number of other planned urban village locations. There are eight Urban Village planning processes currently underway.[6] Draft plans for three Urban Villages; West San Carlos, South Bascom, and The Alameda, have been prepared and are anticipated to be considered by the City Council in 2016. Other Urban Village Plans being formulated include:

- East Santa Clara
- Stevens Creek
- Santana Row/Valley Fair
- Winchester
- Blossom Hill/Snell

### Employment Land Area

Employment Land Areas represent existing areas of the city developed with employment generating uses. They are defined as non-residentially designated lands supporting private sector employment. Key Employment Land Areas shown on Figure 2.2-1 include:

- Berryessa International Business Park
- East Gish
- Evergreen Campus Industrial Area
- Mabury
- Monterey Business Corridor
- Edenvale (Old and New)
- North Coyote Valley
- North San José
- Senter Road

### Planned Communities and Specific Plan Areas

The City of San José has adopted Planned Community designations at key locations selected to foster transit-oriented development, historic preservation, or mixed uses, to provide sensitivity to surrounding neighborhoods, or in support of other strategic goals. Planned Communities/Specific Plan Areas include the following:

- Alviso Master Plan
- Berryessa Swap Area Neighborhood Plan
- Communications Hill Specific Plan
- Evergreen Specific Plan
- Jackson - Taylor Specific Plan
- Jackson - Taylor Neighborhood Revitalization Plan
- Martha Gardens Specific Plan
- Midtown Specific Plan
- Rincon South Specific Plan
- Silver Creek
- Tamien Station Area Specific Plan

[6] City of San José. 2015. *Status Report on General Plan and Urban Village Implementation.* Community and Economic Development Committee Memorandum. April 16, 2015.

### Other Areas

Other areas, outside of the Growth Areas outlined above, that are anticipated to develop include over 4,900 acres of vacant land within the City's Urban Service Area, including about 1,616 acres in North Coyote Valley and about 560 acres of vacant land outside of the designated Growth Areas shown on Figure 2.2-1. Parcels with existing, but not yet built, entitlements are also planned to develop in accordance with those entitlements. At the time of preparation of the 2040 General Plan PEIR, there were approximately 510 acres with existing, not yet built, entitlements outside of the areas identified and planned for growth. The analysis that follows in Sections 3.0 through 6.0 assumes the past four years of growth and development remains part of the project description and does not become part of a new environmental baseline (refer to Section 4.1 and Section 4.3 for a discussion of the environmental baseline used in this Supplemental PEIR).

## 2.2.3 Greenhouse Gas Reduction Strategy

The General Plan also includes a Greenhouse Gas Reduction Strategy that is an integral part of the General Plan and was designed to serve as a guide for the community to achieve the City's vision of sustainable greenhouse gas emissions. The GHG Reduction Strategy identifies specific policies incorporated within the 2040 General Plan that will be required for individual projects, as applicable, to reduce GHG emissions. A copy of the GHG Reduction Strategy, as adopted in 2011, is included in Appendix B.

The GHG Reduction Strategy was prepared in conjunction with the preparation of the 2040 General Plan to ensure that the implementation of the 2040 General Plan aligns with the implementation requirements of Assembly Bill 32 (AB32) – the Global Warming Solutions Act of 2006 – and CEQA Guidelines Section 15183.5, which specifically addresses Greenhouse Gas Reduction Plans. The GHG Reduction Strategy is intended to serve as a guide for the community to achieve the City's vision of sustainable greenhouse gas emissions and is an integral part of implementation of the General Plan. It builds on the City's efforts to reduce greenhouse gas emissions through its adopted Green Vision, Zero Waste Strategy and other efforts including preparation of the Regional Wastewater Facility Master Plan. The GHG Reduction Strategy provides:

- An overview of the environmental context, including an overview of climate science and background information regarding greenhouse gas (GHG) emissions;
- A summary of the State of California's and the San Francisco Bay Area Region's policy frameworks for regulation of GHGs;
- Quantification of existing and projected GHG emissions in 2020 and 2035 as projected in 2011;
- The City of San José's approach to establishing and achieving GHG reduction targets;
- Strategies and performance measures for further reducing GHG emissions; and
- An implementation program for monitoring, reporting progress on, and updating the GHG Reduction Strategy over time as new technologies or practical measures are identified.

The GHG Reduction Strategy identifies specific policies incorporated within the 2040 General Plan that will be required for individual projects, as applicable, to reduce GHG emissions.

For GHG emissions beyond 2020, the GHG Reduction Strategy identifies an efficiency goal that would be a straight-line projection for meeting the substantially more aggressive goal of reducing GHG emissions to levels 80 percent below 1990 emission levels by 2050 as identified in Executive Order S-3-05 (refer to Section 3.1 Greenhouse Gas Emissions for a description of the contents of Executive Order S-3-05). Additional strategies, policies and programs, to supplement those currently identified, will ultimately be required to meet the 2035 reduction target of 3.04 MT of $CO_2e$/SP and the target of 80 percent below 1990 emission levels by 2050.

**Tiering Project-Level CEQA Review for GHG Emissions**

Public agencies, such as the City of San José, may incorporate by reference the environmental review completed for a General Plan and GHG Reduction Strategy and tier from these programmatic analyses for project-specific environmental review of greenhouse gas emissions. Per CEQA Guidelines Section 15183.5, proposed projects found consistent with a qualified GHG Reduction Strategy may be considered to avoid or reduce a project's contribution to cumulative greenhouse gas emissions impacts to a less than significant level.

The GHG Reduction Strategy in the 2040 General Plan was utilized by the City of San José as a qualified GHG Reduction Strategy under CEQA from its adoption in 2011 through February 2015. Pending completion of this Supplemental PEIR, the City has suspended use of the 2040 General Plan PEIR for tiering related to the PEIR's analysis of greenhouse gas emissions. Alternative environmental clearance for greenhouse gas emissions is currently required by the City of San José for all pending projects.

# 3.0 PROJECT DESCRIPTION AND OBJECTIVES

## 3.1 PROJECT DESCRIPTION

The project is continued implementation of the *Envision San Jose 2040 General Plan*, a long-term plan that describes the amount, type, and phasing of development in the City of San José.

There are no modifications proposed to the land use and development assumptions in project description of the 2040 General Plan at this time. This Supplemental PEIR reevaluates the significance of projected greenhouse gas emissions associated with existing and planned land uses in San José and the consistency of the General Plan and GHG Reduction Strategy with the California Climate Change Scoping Plan and other plans.

## 3.2 PROJECT OBJECTIVES

Pursuant to CEQA Guidelines Section 15124, an EIR must include a statement of objectives, including the underlying purpose of the project. There are no changes proposed to the project description and underlying objectives from what was evaluated in the 2040 General Plan Final PEIR.

The first objective identified by the community during the scoping process for development of the 2040 General Plan Update was a desire to promote economic growth to support San José's emergence as a more important employment center within North America. Other primary objectives identified by the community were to promote a healthier fiscal situation for the City, to demonstrate leadership in environmental sustainability, to promote transit use, and to foster the development of "Urban Villages" throughout San José. The Urban Village objective is a key development that is more compact, urban, and attractive in character. The Urban Village strategy is supported by considerable evidence suggesting that such urban environments are environmentally and fiscally beneficial, while also being more attractive to and better meeting the needs of both an aging population and a young, innovative workforce.

This four-year 2040 General Plan Update process occurred from 2007-2011, during a time of unprecedented fiscal challenges for San José, and all cities across California and the nation. Ten years of annual budget deficits highlighted ongoing challenges in San José's ability to achieve sufficient and sustained revenues to enable the City to provide a desired level of quality and quantity of services to residents, businesses and visitors to San José. Within this context of fiscal constraints and uncertainty, the City Council, Envision Task Force, and community stakeholders developed key principles to guide the General Plan Update, chief among them the importance of economic development and attracting many new jobs and businesses to San José, and the need to focus the *Envision San José 2040* planning process to create land use policies which would work to improve and sustain the fiscal health and future service delivery ability of the City.

The City's basic objectives for the *Envision San José 2040 General Plan*, as stated in the 2040 General Plan PEIR, are provided below, and remain in effect.

1. Shift the focus of the city's growth to establish San José as a regional employment center to enhance the City's leadership role in North America, increase utilization of the regional transit systems, and support the City's fiscal health. Promote job growth within San José's Downtown and on employment lands located at the center of regional transportation systems in order to counter the negative impacts of the region's traditional low-intensity, sprawling land use pattern.

2. Create an interconnected city where the activities of and services required for daily life are in close proximity and easily accessible by walking, bicycling and public transit.

3. Provide a mixed variety of commercial and industrial employment lands in a wide range of locations to support an innovative economy with job opportunities for a demographically diverse population. Promote the expansion of commercial activity throughout the city, and in small mixed use "villages" in order to fully meet the needs of the city's residents and enhance quality of life in existing residential neighborhoods.

4. Provide residents and businesses with a broad range of high quality public facilities and services, including educational and cultural opportunities, and distribute these facilities equitably throughout the city.

5. Establish a Land Use Planning Framework to promote the right balance of fiscal revenue and costs to allow the City to deliver high-quality municipal services. Improve the City's current revenue and cost structure, including the fiscal effects of its land development, to allow the City to provide municipal services consistent with community needs and expectations.

6. Provide for an innovative economy with job opportunities for a demographically diverse population and ample fiscal resources to support a vibrant community and the city's emerging leadership role as the Silicon Valley region's employment center.

7. Continue environmental leadership as a sustainable and healthy city, a leader in green technology, and a steward of San José's natural resources and open space areas in part through maintenance of the Urban Growth Boundary and enhancement of riparian corridors and respect for a variety of open spaces both within and outside of the Urban Growth Boundary.

8. Promote public health through a Land Use/Transportation Diagram that promotes walking, biking, and public transit use, facilitating access to parks and recreation, creating community gathering spaces, providing retail and services near residential areas, and developing a sustainable food system with locations for locally grown produce.

9. Preserve and enhance neighborhoods and other areas of the city that provide San José with a sense of identity and a historic and cultural richness.

10. Promote the development of Urban Villages, Corridors and Regional Transit Hubs to provide active, walkable, bicycle-friendly, transit-oriented, mixed-use, urban settings for new housing

and job growth attractive to an innovative workforce and consistent with environmental goals. Focus significant growth, particularly to increase employment capacity, in areas surrounding the city's regional transit hubs in order to support the city's continuing emergence as a Regional Employment Center bringing in workers from throughout the Region to move San José toward the goal of 1.3 jobs for each employed San José resident, and to maximize the use of these transit systems within the region to show the City's support for future regional transit system investment.

11. Distribute and preserve a wide variety of housing types, both throughout the city as well as within individual communities, which meet the needs of an economically, demographically and culturally diverse population.

12. Strategically channel new growth into areas of San José that will best enable the City to achieve its goals for economic growth, fiscal sustainability and environmental stewardship, and support the development of new, attractive urban neighborhoods through the redevelopment of centrally-located, underutilized properties.

13. Design streets for people, not just cars, and to support a diverse range of urban activities and functions. Develop important roadways as Grand Boulevards to connect multiple neighborhoods and act as urban design elements at a citywide scale. Promote the ongoing development of Main Streets to foster community identity and walkability, recognizing that they serve as important destinations for retail and other activities within neighborhood areas.

14. Support continued growth in the Downtown as the city's cultural center and as a unique and important employment and residential neighborhood. Promote growth within the Downtown to support economic, fiscal, environmental and urban design/placemaking goals, and to strengthen the position of Downtown as a priority location for continued investment in all types of local and regional-serving transit services, including bus, bus rapid transit, light rail, standard passenger rail, BART, and high speed rail, and enhanced connectivity amongst modes.

15. Advance the City's Green Vision through 2040 and establish measurable sustainability indicators consistent with Green Vision Goal #7.[7] Use the Plan as the basis for the City's Greenhouse Gas Reduction Strategy.

## 3.3 USES OF THE SUPPLEMENTAL PEIR

This Supplemental PEIR is intended to inform the decision makers and general public of the environmental effects of greenhouse gas emissions and global climate change associated with continued implementation of the Envision San José 2040 General Plan.

The City of San José anticipates that discretionary approvals by the City, including but not limited to the following, may be required to implement the project addressed in this Supplemental PEIR:

[7] Green Vision Goal #7: Adopt a General Plan with Measurable Standards for Sustainable Development.

- Text revisions to the Envision San José 2040 General Plan, including, but not limited to the update/re-adoption of the City's Greenhouse Gas Reduction Strategy

This Supplemental PEIR may also be used to provide the environmental view for actions which are consistent with the Greenhouse Gas Reduction Strategy component of the General Plan. These actions may including the following: adoption of ordinances and policies which implement the Greenhouse Gas Reduction Strategy; and special studies required by or related to implementation of General Plan policies.

This Supplemental PEIR provides the basis for tiering the review of later projects that are within its scope. Future private development and capital improvement projects that are consistent with this Supplemental PEIR, and the Final PEIR for the 2040 General Plan, may not require substantial additional environmental review. It is anticipated that documentation of the consistency of future projects with the analysis is the 2040 General Plan PEIR, as supplemented, would occur through the preparation of an Initial Study or Addendum. Proposed projects that would result in new or substantially greater environmental impacts that are not addressed by this Supplemental PEIR would require the preparation of supplemental environmental analyses.

Implementation of the 2040 General Plan would involve responsible and trustee agencies depending on the nature of the proposed project. Under CEQA, a responsible agency is a public agency, other than the lead agency, which has responsibility for carrying out or approving a project. The following agencies may act as responsible agencies for subsequent projects considered under the Envision San José 2040 General Plan related to greenhouse gas emissions:

- California Air Resources Board
- Bay Area Air Quality Management District

### 3.3.1 Not Covered Under This Program EIR - General Plan Major Review

The Implementation chapter of the 2040 General Plan provides the techniques, strategies, and methods for carrying out the various components of the 2040 General Plan. An important goal within this chapter is Goal IP-2, which calls for monitoring progress toward the General Plan Vision, goals and policies. This includes monitoring progress in reducing greenhouse gas emissions from land uses within the City.

Per Policy IP-2.4, a Major Review of the 2040 General Plan is to be conducted every four years to evaluate the City's achievement of key economic development, fiscal and infrastructure/service goals, greenhouse gas emission reduction goals and targets, water conservation and recycling goals, availability and affordability of housing supply, Healthful Community goals, and to review changes and trends in land use and development. The General Plan Task Force is reconvened for the Major Review to assess progress on meeting General Plan goals and to inform the City Council regarding needed changes to achieve:

1. Jobs/Housing Balance – Demonstrate improvement of the City's jobs to employed resident ratio (J/ER) consistent with achievement of 1.3 jobs per employed resident by the year 2040.

2. Fiscal Sustainability – Demonstrate sustainable improvement above 2010 levels in the level of service for City services provided to the San José community.

3. Housing Supply – Verify that the current Planning Horizon contains adequate capacity to meet San José's Regional Housing Needs Allocation for the upcoming 4-year term.

4. Infrastructure – Confirm that adequate infrastructure and service facilities, especially transit, exist or that a secure plan for them is in place to support the planned jobs and housing capacity in the current and contemplated Horizon.

The City of San José has initiated work on the first Major Review of the 2040 General Plan. This review will include an assessment of City service and infrastructure goals as well as an updated fiscal analysis of the General Plan Land Use Plan. Completion of the information gathering phase and recommendations by a reconvened Task Force are scheduled to be completed by the end of 2015. Environmental review of any proposed amendments to the 2040 General Plan and consideration by the Planning Commission and City Council is anticipated to take place in 2016. As called for in the stipulated judgment, the environmental review process for this Supplemental PEIR, is scheduled to be completed by the end of 2015, prior to the consideration of the first Major Review of the 2040 General Plan by decision makers.

This Supplemental PEIR focuses on the assessment of greenhouse gas emissions projected to occur from implementation of the 2040 General Plan, as adopted in 2011. It does not address possible updates and revisions as part of the first Major Review of the 2040 General Plan, which is in progress and yet to be completed.

*This page intentionally left blank*

# 4.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

This Draft Supplemental PEIR includes descriptions of the physical environment in the vicinity of the project, as those conditions existed at the time the environmental review for the 2040 General Plan PEIR was initiated. Growth and development implementing the 2040 General Plan since its 2011 adoption is also described, but for the purposes of this Supplemental PEIR it is not considered as part of the baseline for assessing the impacts of the 2040 General Plan.

The original baseline conditions are used as a basis of comparison in this Supplemental PEIR for several reasons. The reasons are: 1) as part of the stipulated judgment of dismissal (refer to Section 1.1 *Purpose of the Environmental Review*), the Supplemental PEIR is to provide an analysis that compares citywide baseline emissions in 2008 with projected emissions in 2035 and 2) the PEIR is not evaluating changes to the basic land use and transportation assumptions and policies in the 2040 General Plan. The comparison of future greenhouse gas emissions to 2008 emissions, when citywide population and employment was lower than in 2015, also provides a more conservative baseline for a comparison of net changes in mass greenhouse gas emissions associated with land use changes allowed under the 2040 General Plan.

The consideration and discussion of environmental impacts (that follow the discussions of baseline conditions and changes in San José since 2008) evaluate whether the environmental effects are significant; that is: do those effects exceed stated levels, or "thresholds" of significance. Mitigation measures, proposed to minimize the identified significant environmental effects, are also described in the discussion of environmental impacts and mitigation measures, per CEQA Guidelines Section 15126.

## 4.1 BASELINE CONDITIONS – 2040 GENERAL PLAN PEIR

At the start of the environmental review of the 2040 General Plan PEIR in calendar year 2008, the population of San José was 985,307 and there were 369,450 jobs and 309,350 residences. The jobs to employed residents ratio was about 0.8 and during working hours the number of people in the City was reduced as many residents traveled outside the City for work.

## 4.2 CHANGES WITHIN SAN JOSÉ SINCE 2008

Population, employment and development within the City of San José have changed since both the initiation of environmental review (2008-2009) and adoption of the 2040 General Plan in 2011. Development in San José has increased substantially since the middle of 2009, with the majority of these developments entitled in the early 2000's prior to the economic recession in the late 2000's.[8] Most construction activity has been in the residential sector.

[8] City of San José. 2015. *Development Activity Highlights and Five-Year Forecast (2016-2020).* Accessed May 5, 2015. Available at: < http://www.sanjoseca.gov/DocumentCenter/View/40642>.

For the calendar year 2012 (most recent available data), approximately 85 percent of development permit activity occurred in Growth Areas, with similar results for 2010 and 2011.[9] The majority of development during this period also occurred as the reuse of previously developed lands rather than development on vacant land. In March 2012, the latest vacant land inventory for the City identified a total of 4,933 acres within the Urban Service Area, including over 700 acres of residentially designated vacant land, over 200 acres of commercially designated land, and over 3,000 acres of acres of industrial designated land.[10] The 2040 General Plan PEIR noted that in 2007 the city had approximately 4,906 acres of vacant land within the Urban Service Area (USA), with 1,615 acres in the North Coyote Valley Campus Industrial Area and 560 acres outside designated growth areas. Overall, since 2007 development on vacant land appears to be limited. There appears to have been some development of single-family residential uses on vacant land (less than 100 acres) and some shifts between land designated for commercial and industrial uses.

The environmental baseline for transportation and greenhouse gas emissions for the 2040 General Plan PEIR was the calendar year 2008. Changes in population and employment since 2008 and 2011 (adoption of the 2040 General Plan) are listed in Table 4.1-1. New residential units and non-residential square footage developed through 2012 is listed in Table 4.1-2. The population in San José has increased by approximately 31,172 people or 3.2 percent.

## 4.3 BASELINE CONDITIONS USED IN THIS SUPPLEMENTAL PEIR

The information on population and development growth since 2011 in Section 4.2 above is presented for informational purposes. This Supplemental PEIR treats all development assumed in the 2040 General Plan as part of the project description, even though the 2040 General Plan has been partially implemented. Where comparisons to existing conditions or the environmental baseline are made, the population, employment, built environment, and vehicle miles traveled presented in the 2040 General Plan PEIR (e.g., calendar year 2008 for greenhouse gas emissions) are used.

As noted in Section 4.0, above, use of the 2008 baseline is consistent with the requirements of the stipulated judgment of dismissal and provides a more conservative baseline (than 2015, which would include population and employment growth since 2008) for a comparison of net changes in mass greenhouse gas emissions. In addition, since no changes to the land use and development assumptions in the 2040 General Plan are proposed and the 2008 baseline represents the physical conditions existing when CEQA review of the 2040 General Plan began, the City of San José has concluded that there is a reasonable basis for continuing to use this baseline.

[9] City of San José. 2013. *Envision San José 2040 General Plan Annual Performance Review.* October 9, 2013. Accessed May 5, 2015. Available at: < http://www.sanjoseca.gov/DocumentCenter/View/23424>.
[10] City of San José. 2012. *Vacant Land Inventory*. Accessed May 5, 2015. Available at: <http://www.sanjoseca.gov/DocumentCenter/View/792>.

**Table 4.1-1**
**Population, Employment and Development**

| | 2008 (2040 GP Baseline) | 2011[1] (Adoption of 2040 GP) | 2015[1] |
|---|---|---|---|
| Population | 985,307 | 957,490[2] | 1,016,479[2] |
| Jobs | 369,450 | 387,597[3] | 414,380[4] |
| Residential Development (Dwelling Units) | 309,350 | 312,131[5]<br>315,255[6] | 322,530[5]<br>319,700[7] |
| Employed Residents | 460,443 | 449,911[6] | 458,131[7] |

[1]Latest information available at time of adoption of the 2040 GP or circulation of the NOP for the Supplemental PEIR, as noted.

[2]Source: State of California, Department of Finance, E-4 Population Estimates for Cities, Counties, and the State, 2011-2015, with 2010 Census Benchmark. Sacramento, California, May 2015.

[3]Source: 2012 jobs data cited from 2010-2012 American Community Survey (1-year estimates) listed in City of San José. 2013. *Envision San José 2040 General Plan Annual Performance Review*. October 9, 2013, p. 7. http://www.sanjoseca.gov/DocumentCenter/View/23424.

[4]Source: Job projection in Association of Bay Area Governments. *Plan Bay Area Projections 2013.*

[5]Source: Additional residential units estimated from City of San José. 2015. *Development Activity Highlights and Five-Year Forecast (2016-2020).* February 2015. (refer to Table 3.1-2, below)

[6,7]Sources: 2007-2011 American Community Survey 5-Year Estimates (2011) and 2009-2013 American Community Survey 5-Year Estimates (2013)

**Table 4.1-2**
**New Residential Units and Commercial and Industrial Development**

| | 2009-2010 | 2010-2011 | 2011-2012 | 2012-2013 | 2013-2014 | **Total** |
|---|---|---|---|---|---|---|
| Residential (dwelling units) | | | | | | |
| *Single-Family* | 103 | 66 | 140 | 284 | 341 | **934** |
| *Multi-Family* | 470 | 2,142 | 2,833 | 2,418 | 4,383 | **12,246** |
| Total | 573 | 2,208 | 2,973 | 2,702 | 4,724 | **13,180** |
| Commercial (square feet, in thousands) | 750 | 500 | 500 | 250 | 1,400 | **3,400** |
| Industrial (square feet, in thousands) | 250 | 0 | 0 | 250 | 1,200 | **1,700** |
| Total | 1,000 | 500 | 500 | 500 | 2,600 | **5,100** |

Source: City of San José. 2015. *Development Activity Highlights and Five-Year Forecast (2016-2020).* February 2015.

- Data on residential units based on the Department of Building, Planning and Code Enforcement, Building Division's *Permit Fee Activity Report.*
- Data on commercial and industrial square footage estimated based on construction valuation in the Department of Building, Planning and Code Enforcement, Building Division's *Permit Fee Activity Report.*

## 4.4 GREENHOUSE GAS EMISSIONS AND GLOBAL CLIMATE CHANGE

The following discussion evaluates greenhouse gas (GHG) emissions resulting from implementation of the 2040 General Plan and the potential for land uses in San José to cumulatively contribute to significant greenhouse gas emissions impacts.

Globally, $CO_2$ concentrations and GHG emissions have increased from anthropogenic sources over time and from many locations. For example, $CO_2$ concentrations in the earth's atmosphere have increased from 278 parts per million in pre-industrial times (around 1750) to 390.5 parts per million in 2011. On an annual basis, global GHG emissions are on the order of 49 gigatonnes (or 49 billion metric tons or 49,000 million metric tons) of $CO_2e$ per year (2010). Emissions from the United States as a whole during the same one-year period were over six billion metric tons of carbon dioxide equivalents ($CO_2e$)[11]. Because no single project, even at the scale of a comprehensive General Plan guiding development for the next 25 years, is large enough to individually result in a measurable increase in global concentrations of GHG to noticeably change the global average temperature, global warming impacts of a project are considered on a cumulative basis. This section will address whether they make a "cumulatively considerable" contribution to global emissions or whether the City's future land use mix and form will be consistent with statewide efforts to curb GHG emissions and avoid contributing to the worst-case anticipated climate change impacts.

The analysis in this section is based in part on the following technical reports and amendments:

- Technical Report Greenhouse Gas Inventories, City of San José, Sierra Research, November 2010.
- Amendment to Technical Report: Greenhouse Gas Inventories for Scenarios 7 and 7A, City of San José, Sierra Research, March 2011.
- San José Emissions Memo, AECOM Technical Services, Inc., June 10, 2015

The GHG emissions modeling listed above are provided in Appendix C and D of this Supplemental PEIR. The transportation sector estimates used are based on vehicle miles traveled (VMT) from the regional transportation demand model runs completed for the 2040 General Plan PEIR.

The discussion in this section focuses on greenhouse gas emissions impacts *from* land uses in the City of San José. Climate change impacts *to* the City of San José, both its built and natural environment, were discussed in each relevant section in the 2040 General Plan PEIR (*e.g.*, Hydrology and Water Quality for flooding, Utilities and Service Systems for long-term water supplies). While the City's efforts to adapt and mitigate the local effects of climate change and sea level rise on people, infrastructure and the environment, are an important consideration, they are not addressed in this section, with the exception of the regulatory setting.

[11] U.S. EPA. "U.S. Greenhouse Gas Emissions". Accessed June 10, 2015. Available at: <http://www.epa.gov/climatechange/science/indicators/ghg/us-ghg-emissions.html>

## 4.4.1 Existing Setting

### 4.4.1.1 *Climate Science Overview*

Climate science is the study of weather conditions over a period of time. Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the Earth's climate system.

Greenhouse gases consist of carbon dioxide and other heat-trapping gases. Changes in the amount of atmospheric greenhouse gases due to human activities have contributed to global climate change by considerably altering climate system patterns of temperature, precipitation, and wind, and by affecting oceanic temperatures and chemistry. Current carbon dioxide levels in the atmosphere exceed levels from the last 800,000 years and levels are rising.

Global temperatures are affected by atmospheric heat-trapping gases such as carbon dioxide, water vapor, and methane. These gases are mostly transparent to incoming solar radiation, but are effective in absorbing infrared radiation (energy emitted from the earth). As a result, the heat that otherwise would have escaped back into outer space is now retained, altering the earth's energy balance. This is known as the "greenhouse effect".

In addition to carbon dioxide ($CO_2$) and methane, other GHGs include nitrous oxide, chlorofluorocarbons (CFCs) and hydrofluorocarbons (HCFCs). Each GHG has a different ability to trap heat in the atmosphere. $CO_2$ is the most abundant GHG and has a Global Warming Potential (GWP) rating of 1 (refer to Table 4.1-1). Other GHGs have a higher GWP, expressed in terms of carbon dioxide equivalents ($CO_2e$). Ozone ($O_3$) gas in the troposphere and black carbon (fine particulate matter, not a gas) are now also recognized as important climate pollutants. Carbon dioxide is undoubtedly the most important GHG, and collectively $CO_2$, methane, and nitrous oxide amount to 80 percent of the total radiative forcing[12] from well-mixed GHGs.[13] $CO_2$ emissions account for about 82 percent of the $CO_2e$ emissions in the U.S.[14]

The abundance of GHGs in the atmosphere is controlled by cycles that continually transfer the molecules between ocean, land, biomass, and atmosphere reservoirs.[15] For example, the amount of atmospheric carbon is reduced through the accumulation of plant biomass (via photosynthesis) and is increased through deforestation and the burning of fossil fuels (oil, natural gas, and coal) for energy

[12] Radiative forcing (or effect) is the difference of insolation (sunlight) absorbed by the Earth and energy radiated back to space. Typically, radiative forcing is quantified at the top of the earth's atmosphere, at the tropopause, in units of watts per square meter of the Earth's surface. A positive forcing (more incoming energy) warms the system, while negative forcing (more outgoing energy) cools it. Causes of radiative forcing include changes in insolation and the concentrations of radiatively active gases, commonly known as greenhouse gases and aerosols.
[13] California Air Resources Board. 2014. *First Update to the Climate Change Scoping Plan.* page 14.
[14] U.S. EPA. "Overview of Greenhouse Gases". Accessed May 8, 2015. Available at: <http://www.epa.gov/climatechange/ghgemissions/gases/co2.html>.
[15] National Oceanic and Atmospheric Administration (NOAA) and the American Association for the Advancement of Science (AAAS). *Climate Literacy: The Essential Principles of Climate Sciences.* 2009.

**Table 4.4-1**
**Examples of Greenhouse Gases and Their Sources**

| Gas | Sources | Global Warming Potential[1] |
|---|---|---|
| Carbon dioxide ($CO_2$) | Combustion of fossil fuel (oil, natural gas, coal) in stationary and point sources, solid waste, and wood and other chemical reactions, such as the manufacture of cement. Carbon dioxide is removed from the atmosphere when absorbed by plants as part of the biological carbon cycle. | 1 |
| Methane ($CH_4$) | Produced through anaerobic (without oxygen) decomposition of waste in landfills, animal digestion, decomposition of animal wastes, production and distribution of natural gas and oil, coal production, incomplete fossil-fuel combustion, and certain industrial processes. | 21 |
| Nitrous oxide ($N_2O$) | Emitted through soil cultivation practices, especially the use of commercial and organic fertilizers, fossil-fuel combustion, nitric acid production, and biomass (wood, plants) burning. | 310 |
| Chlorofluorocarbons (CFC) and Hydro-chlorofluorocarbons (HCFC) | Man-made compounds used in production of foam insulation; and used in air conditioners, refrigerators, and solvents in cleaners. | 140-11,700 |
| Sulfur hexafluoride ($SF_6$) | Primarily used as electric insulation in high voltage equipment that transmits and distributes electricity and to assist in the manufacturing of cable cooling systems. | 23,900 |
| Perfluorocarbons (PFC's) | Produced in aluminum production and uranium enrichment. Also used as replacements for chlorofluorocarbons semiconductor manufacturing. | 6,500 - 9,200 |

[1]The concept of a global warming potential (GWP) was developed to compare the ability of each greenhouse gas to trap heat in the atmosphere relative to another gas. Gases with a higher GWP absorb more energy, per ton, than gases with a lower GWP, and thus contribute more to warming.

The values listed above and in the 2008 Climate Change Scoping Plan prepared by CARB are based on GWP values in the IPCC's Second Assessment Report. Updated global warming potentials for some compounds have been published by the IPCC in their Fifth Assessment Report and adjusted values were included in the First Update to CARB's Climate Change Scoping Plan in 2014. The older values are listed here to be consistent with those used by BAAQMD and the City of San José to calculate significant thresholds for GHGs in 2011; future projections and possibly targets in the next Major Review of the General Plan are expected to use the most current, scientifically based values being used by CARB at the time new projections are prepared. The importance and usefulness of the values listed above for readers is to show that the GWP of gases differ and that the GWP of some gases is substantially greater than others.

production and transportation.[16] Humans also generate GHG emissions through the decomposition of solid waste, burning of wood, agricultural practices, and industrial activities. Since the beginning of the Industrial Revolution, humans have released carbon into the atmosphere at a much faster rate than is being absorbed into the ocean, land, and biomass reservoirs, leading to an extensively documented increase in atmospheric $CO_2$ concentrations. Estimated annual anthropogenic emissions of GHGs (i.e., from human activities) on a global basis for the period 1970-2010 are shown in Figure 4.4-1.

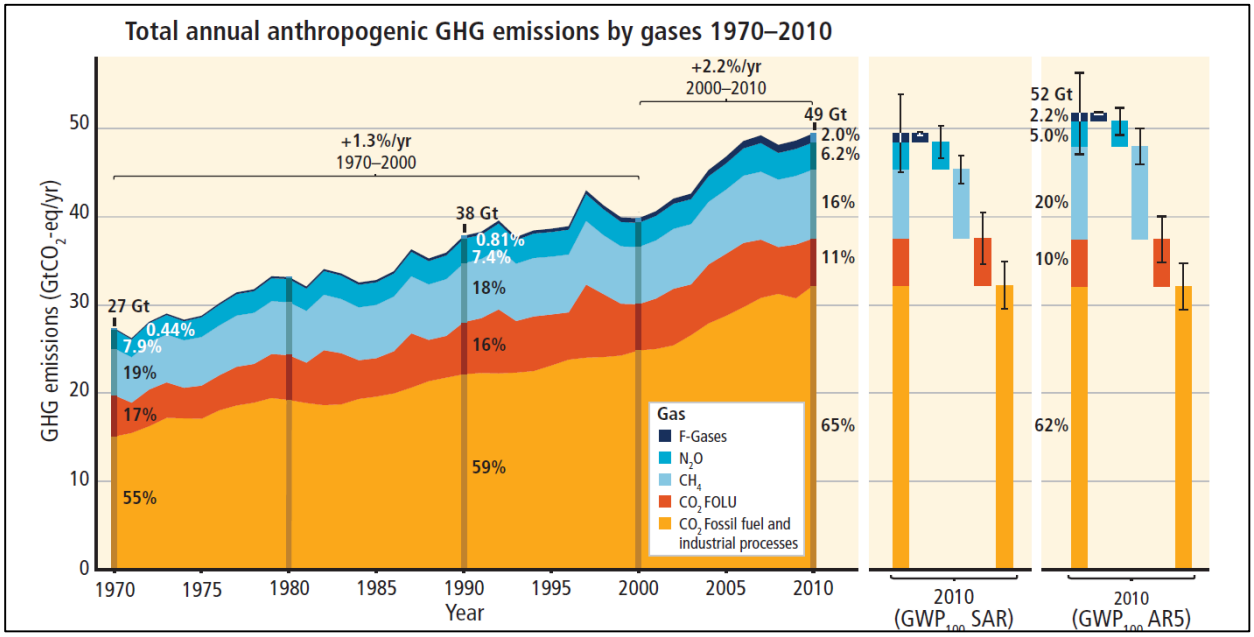



**Figure 4.4-1: Magnitude of Annual Global GHG Emissions (gigatonnes or billion metric tons of $CO_2e$ per year)**
Source: IPCC. 2014. *Climate Change 2014 Synthesis Report Summary for Policy Makers.* p. 5, Figure SPM. 2)

Global atmospheric concentrations of $CO_2$ have increased by 40 percent from 278 parts per million in pre-industrial times, around 1750, to 390.5 parts per million in 2011.[17] Previous scientific assessments assumed that limiting global temperature rise to 2-3°C above pre-industrial levels would require stabilizing greenhouse gas concentrations in the range of 450-550 ppm of carbon dioxide-equivalent ($CO_2e$). Now the science indicates that a temperature rise of 2°C would not prevent dangerous interference with the climate system.[18] To avoid a two degree Celsius warming, total (cumulative) carbon emissions need to be kept to 1,000 gigatonnes (GtC), of which 500 GtC has already been emitted worldwide.[19] The IPCC Fifth Assessment report concludes that as global mean surface temperature increases, it is virtually certain that there will be more frequent hot and

[16] Fossil fuels are essentially derived from underground reservoirs of carbon that developed through natural processes over thousands of years.
[17] A gigatonne is a billion metric tons. A metric ton is equivalent to 2,204.6 pounds.
[18] Bay Area Air Quality Management District (BAAQMD). CEQA Air Quality Guidelines. May 2011. Available at: <http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/ CEQA/BAAQMD%20CEQA%20Guidelines_May%202011_5_3_11.ashx>
[19] CARB. 2014. *First Update to the Climate Change Scoping Plan.* p. 12-13.

fewer cold temperature extremes over most land areas on daily and seasonal timescales, and it is very likely that heat waves will occur with a higher frequency and longer duration.[20]

As a result of global climate change, extreme events such as heat waves, floods, droughts, wildfires, and poor air quality are likely to become more frequent in the future in California[21] and elsewhere. Climate change is expected to increase the demand for electricity and decrease the reliability of water supplies, due to the warmer-drier climate, changes in precipitation patterns, and earlier melting of the Sierra snowpack. Sea-levels could rise 10-18 inches higher in 2050 than in 2000, and 31-55 inches higher by the end of this century.[22]

### Geographic Extent of the Effects of GHG Emissions

Unlike emissions of criteria and toxic air pollutants, which have local or regional impacts, emissions of GHGs have a broader, global impact as they accumulate and move through the earth's atmosphere. Many of the major greenhouse gases can remain in the atmosphere for tens to hundreds of years after being released. They become globally mixed in the lower atmosphere, reflecting contributions from emissions sources worldwide.[23] As the result of the extent of human sources of GHG worldwide, the stability of many of these compounds in the atmosphere, and the mixing that occurs in the atmosphere (and oceans), the effects of greenhouse gas emissions on climate are considered global, cumulative impacts.

As noted above, emission of GHGs from San José and elsewhere in the world contribute cumulatively to concentrations of GHG in the earth's atmosphere that over time lead to climate and ocean circulation changes throughout the globe. The environmental effects of GHG emissions are a very different condition than the manner that regional criteria air pollutants, such as nitrogen oxides ($NO_x$) and particulate matter (PM), impact the air quality of an air basin, or that the local pollutant, carbon monoxide (CO), affects the environment of a local heavily traveled intersection. For GHGs, the environmental setting is the global atmosphere (including well above the earth's surface) and not the amount of $CO_2$ or other GHGs present locally in San José or the San Francisco Bay Area Air Basin. While there are local and regional effects of *climate change* (such as sea level rise, extreme weather conditions), the location where emissions occur is not directly related to where the effects of climate change are observed or experienced. For example, temperature changes are having environmental effects at higher latitudes (e.g., the north and south poles) and higher elevations (e.g., glacial retreats) even though GHG emissions from these areas is extremely limited. Given the scale of the global environment and global GHG emissions since the pre-industrial period, no one project

[20]IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, p.10.

21 California Environmental Protection Agency. *Draft Climate Action Team Report to Governor Schwarzenegger and the Legislature*. 2009.

[22] California Climate Change Center. 2012. *Our Changing Climate: 2012 Vulnerability & Adaptation to the Increasing Risks from Climate Change in California A Summary Report on the Third Assessment.* July 2012 / CEC-500-2012-007.

[23] U.S. EPA. "Greenhouse Gases". Accessed May 8, 2015. Available at: ,http://www.epa.gov/climate/climatechange/science/indicators/ghg/index.html>

can influence climate to the extent it can be traced as a cause and effect of the individual project, especially on a local or regional environment in the vicinity of the project.

#### 4.4.1.2 *Regulatory Framework*

Agencies at the national, state, and local levels have adopted and are considering a number of regulatory strategies to control emissions of GHG that contribute to global warming.

**Federal**

Clean Air Act

The U.S. EPA is the Federal agency responsible for implementing the Clean Air Act (CAA). The U.S. Supreme Court in its 2007 decision in *Massachusetts et al. v. Environmental Protection Agency et al.,* ruled that carbon dioxide ($CO_2$) is an air pollutant as defined under the CAA, and that EPA has the authority to regulate emissions of GHGs. Following the court decision, EPA has taken actions to regulate, monitor, and potentially reduce GHG emissions (primarily mobile emissions). On December 7, 2009, the EPA Administrator made two distinct findings regarding greenhouse gases under section 202(a) of the CAA:

**Endangerment Finding**: The EPA Administrator found that the current and projected concentrations of the six key well-mixed greenhouse gases – carbon dioxide ($CO_2$), methane ($CH_4$), nitrous oxide ($N_2O$), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride ($SF_6$) in the atmosphere threaten the public health and welfare of current and future generations.

**Cause or Contribute Finding**: The EPA Administrator found that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.

The final rule was effective January 14, 2010. This action was a prerequisite to finalizing the EPA's greenhouse gas emission standards for light-duty vehicles, including the Department of Transportation's proposed Corporate Average Fuel Economy (CAFE) standards (see below).

*EPA Stationary Sources Regulations*

Regulation of emissions from stationary-sources under the CAA comes in three forms; air quality standards, technology standards, and permits for new and modified sources. In November 2010, the U.S. EPA issued guidance for state and local permitting programs. Under this guidance, control measures required as a part of permitting will focus on the largest industrial sources, those emitting nearly 70 percent of the greenhouse gas emissions from stationary sources. These include sources such as power plants, refineries, and other large sources of industrial emissions. States and/or local regulatory agencies (i.e., BAAQMD) will review permit applications and require Best Available Control Technology (BACT) for large industrial sources such as power plants using existing

methodologies for determining feasibility. This guidance applies to permits issued on or after January 2, 2011.

*Corporate Average Fuel Economy Standards (CAFE) for Vehicles*

GHG emissions by vehicles are directly related to the amount of fuel consumed. Current CAFE standards for model years 2011 to 2016 include fuel economy requirements of the federal government and California incorporated into one uniform standard, with an overall fleet average for new cars of 25.5 miles per gallon [mpg] by 2016. In addition, automakers are required to cut emissions of GHG from new vehicles by about 25 percent by 2016.

Standards adopted in 2012 for model years 2017-2025 require a fleet average fuel economy of 54.5 mpg in 2025.

## State of California

California has been on the leading edge of creating legislation to mitigate both GHG emissions and the impacts of climate change. A number of concrete steps have been taken to reduce GHG emissions in the state, and a GHG emissions cap-and-trade program has been developed to provide off-set mitigation for large, new sources of GHG emissions.

State of California targets and regulations for reductions in GHG emissions are generally embodied in the California Global Warming Solutions Act (Assembly Bill 32), Executive Orders S-03-05 and S-30-15, and Senate Bill 375.

California Global Warming Solutions Act

Under the California Global Warming Solution Act, also known as Assembly Bill 32 (AB 32), the California Air Resources Board (CARB) has:

- Established a statewide GHG emissions cap for 2020, based on 1990 emissions.
- Adopted mandatory reporting rules for significant sources of GHG.
- Adopted a comprehensive plan, known as the *Climate Change Scoping Plan*, that identifies how emission reductions will be achieved from significant GHG sources via regulations, market mechanisms and other actions.
- Adopted a first update to the *Climate Change Scoping Plan*.

CARB is in the process of adopting regulations to achieve the maximum technologically feasible and cost-effective reductions in GHG, including provisions for using both market mechanisms and alternative compliance mechanisms. Prior to imposing any mandates or authorizing market mechanisms, CARB must evaluate several factors, including but not limited to impacts on California's economy, the environment and public health; equity between regulated entities; electricity reliability, conformance with other environmental laws and ensure that the rules do not disproportionately impact low-income communities.

The Climate Change Scoping Plan (Scoping Plan) adopted in December 2008, is the State's comprehensive plan to achieve GHG reductions in California. The Scoping Plan has a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system California will implement to achieve a reduction of 169 MMT $CO_2e$ emissions, or approximately 28 percent from the state's projected 2020 emission level of 596 MMT of $CO_2e$ under a business-as-usual scenario, so that the state can return to 1990 emission levels (estimated at 427 MMT), as required by AB 32. Many of the measures identified in the Scoping Plan will be implemented by state government or at a statewide-level. Under the plan, local and regional government will need to implement changes to local land use patterns and improved transportation systems to further reduce total statewide GHG emissions by 2020. In the summary of societal benefits section, the Scoping Plan notes that reductions in vehicle miles traveled (VMT) are expected to result from regional and local planning which target land use and that measures that support shifts in land use patterns are expected to emphasize compact, low impact growth in urban areas over development in greenfields (e.g., vacant, agricultural or open space lands outside the urban edge). The Scoping Plan references a recommended goal for local governments to reduce municipal and community GHG emissions by 15 percent from then current levels (assumed to be 2008) by 2020, but it does not rely on local GHG reduction targets established by local governments to meet the State's GHG reduction target for 2020 in AB 32.

Key elements of the Scoping Plan that may be applicable or related to implementation of the 2040 General Plan include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a mix of 33 percent renewable sources for energy generation;
- A California cap-and-trade program to create a regional market system of GHG offsets for large stationary sources, such as power plants;
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets;
- Adopting and implementing transportation sector measures pursuant to existing State laws and policies, including California's clean car standards (e.g., Pavley Standards, as amended, Advanced Clean Car standard), goods movement measures, and the Low Carbon Fuel Standard.
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long term commitment to AB 32 implementation.

On May 22, 2014, CARB adopted an updated Scoping Plan document. The 2014 update defines CARB's climate change priorities for the next five years and lays the groundwork to start the transition to the post-2020 goals set forth in Executive Order S-3-05 and B-16-2012.[24] The 2014

[24] Executive Order B-16-2012, issued by Governor Brown in March 2012, calls for expanded infrastructure to support zero emission vehicles and sets benchmarks for future state fleet vehicle purchases of zero emission vehicles. The executive order is available online at: http://gov.ca.gov/news.php?id=17472.

update highlights California's progress toward meeting the near-term 2020 greenhouse gas emission reduction goals defined in the 2008 Scoping Plan and evaluates how to align the State's longer-term greenhouse gas reduction strategies with other State policy priorities such as for water, waste, natural resources, agriculture, clean energy, transportation, and land use. Achieving the low-carbon future called for in the Executive Orders and various studies will require that the pace of GHG emission reductions in California accelerate significantly. Emissions from 2020 to 2050 will have to decline several times faster than the rate needed to reach the 2020 emissions limit. The updated Scoping Plan calls for the establishment of mid-term targets for each sector, to meet a State mid-term GHG emission reduction goal, when defined. CARB is in the process of preparing a second update to the Scoping Plan that will identify an emissions target for 2030 and a framework to meet the target.

Executive Order S-3-05

Governor Arnold Schwarzenegger issued Executive Order S-3-05 (EO S-3-05) in 2005 establishing the following near-term, mid-term, and long-term GHG emission reduction targets for California:

- 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.

The long-term 2050 target represents the level scientists believe is necessary to reach atmospheric GHG concentrations (below 350 ppm $CO_2e$) that will stabilize climate change.

Executive Order B-30-15

On April 29, 2015, Governor Edmund G. Brown Jr. issued Executive Order B-30-15, setting a new interim statewide greenhouse gas emission reduction target. The purpose of establishing the interim target is to ensure California meets its previously established target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050, as set forth in Executive Order S-3-05 in 2005. Under Executive Order B-30-15, the interim target is to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030.

As a part of this effort, the California Air Resources Board is required to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent. The California Air Resources Board will initiate a public process in the summer of 2015 to update the State's Climate Change Scoping Plan. The updated Scoping Plan will provide a framework for achieving the 2030 target and will be completed and adopted by the Air Resources Board in 2016.

This Executive Order also calls for the California Natural Resources Agency to update the State of California's climate adaption strategy, Safeguarding California, every three years. The Safeguarding California plan will identify vulnerabilities to climate change by region and sector, including water, energy, transportation, public health, agriculture, emergency services, forestry, biodiversity and habitat, and ocean and coastal resources. It also will identify actions needed to reduce risks to residents, property, communities, and natural systems from the vulnerabilities. A lead agency or group of agencies will be identified to lead adaptation efforts in each sector. Overall, the Natural

Resources Agency will be responsible for ensuring that the provisions in the State's climate adaption strategy are fully implemented and state agencies must take climate change impacts into account in their planning decisions, including for all infrastructure projects.

Senate Bill 375 – Redesigning Communities to Reduce Greenhouse Gases

Senate Bill (SB) 375, known as the Sustainable Communities Strategy and Climate Protection Act, was signed into law in 2008. It builds on AB 32 by requiring CARB to set regional targets for the purpose of reducing GHG emissions from passenger vehicles for 2020 and 2035. The per capita reduction targets set for passenger vehicles in the San Francisco Bay Area are a seven percent reduction by 2020 and a 15 percent reduction by 2035. These regional targets are designed to help achieve the goals of AB 32 and the Scoping Plan through changed land use patterns and improved transportation systems. The emission reduction targets are for those associated with land use and transportation strategies, only. Emission reductions due to the California Low Carbon Fuel Standards or Pavley emission control standards are not included in the targets.

*Plan Bay Area*

Consistent with the requirements of SB 375, MTC and ABAG adopted *Plan Bay Area* in July 2013 as part of the Regional Transportation Plan process. The strategies in the plan are intended to promote compact, mixed-use development close to public transit, jobs, schools, shopping, parks, recreation, and other amenities, particularly within Priority Development Areas (PDAs) identified by local jurisdictions. PDAs were originally established to address housing needs in urban settings and were later broadened to address employment centers. PDAs within San José designated Growth Areas include Regional Centers in North San José and Downtown, City, Suburban, and Transit Town Centers, Transit Neighborhoods, Mixed Use Corridors and Employment Centers (Figure 4.4-2).

San José's General Plan has a direct relationship to SB 375 in that the City's future mix and distribution of land uses will influence vehicle miles traveled (VMT) within and to/from the City. Passenger vehicles are the largest single source of GHG emissions in California, and accounted for approximately 26.9 percent of the state's total between 2000 and 2012.[25] Reducing GHG from passenger vehicles relies upon a 'three-legged stool' of strategies: driving less, using less fuel per mile, and using fuel with a lower carbon-intensity. The City can only directly influence one 'leg' of the stool – VMT due to land use patterns. The other two 'legs' (vehicle fuel efficiency standards and the carbon-intensity of fuels) are the purview of state and/or federal agencies. Descriptions of California's Low Carbon Fuel Standard and Clean Car Standards follow.

[25] California Air Resources Board. "California Greenhouse Gas Inventory - 2000-2012". Accessed May 9, 2015... Available at: < http://www.arb.ca.gov/cc/inventory/data/data.htm> and <http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_00-12_2014-03-24.pdf>

Low Carbon Fuel Standard (LCFS) – Executive Order S-01-07

California's LCFS requires fuel providers to reduce the carbon intensity of transportation fuels sold in the state, dramatically expanding the market for alternative fuels. By 2020, the LCFS will reduce carbon content in all passenger vehicle fuels sold in California by 10 percent. The LCFS was established by Executive Order S-01-07 in 2007.

Clean Car Standards – Pavley Regulations and Advanced Clean Car Program

CARB has adopted amendments to the "Pavley" regulations that are designed to reduce greenhouse gas (GHG) emissions in new passenger vehicles. It is expected that the Pavley regulations will reduce GHG emissions from new California passenger vehicles by approximately 22 percent in 2012 and approximately 30 percent in 2016, all while improving fuel efficiency and reducing motorists' costs.

Under California's Advanced Clean Car program, it is anticipated that new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions by 2025.[26]

Vehicle Efficiency Regulations (Heavy-Duty Aerodynamics)

CARB has adopted regulations for existing truck/trailers that require them to be retrofitted with best available technology and/or CARB-approved technology to increase vehicle aerodynamics and fuel efficiency. Technologies that reduce GHG emissions and improve the fuel efficiency of trucks may include devices that reduce aerodynamic drag and rolling resistance. This measure was identified as a Discrete Early Action in the Climate Change Scoping Plan and became enforceable in 2010.

Executive Order B-16-2012

On March 23, 2012, Governor Edmund G. Brown Jr. issued Executive Order B-16-2012, which calls for state entities to control, support, and facilitate, the rapid commercialization of zero-emission vehicles. It establishes a series of benchmarks to achieve by 2015, 2020 and 2025, including to accommodate zero-emission vehicles in major metropolitan areas with infrastructure (such as electric vehicle charging stations). The Executive Order directs the number of zero-emission vehicles to increase in the State of California's vehicle fleet as a part of fleet replacement and also establishes a California target for 2050 of reducing greenhouse gas emissions from the transportation sector to 80 percent less than 1990 levels.

California Transportation Plan 2040 (In-Progress) and California Interregional Strategic Plan

The California Transportation Plan (CTP) is a statewide, long-range transportation plan for Caltrans and transportation agencies statewide that is updated every five years. The 2040 CTP currently being prepared is designed to meet California's future mobility needs and reduce GHG emissions. CTP

[26] CARB. "California's Advanced Clean Car program". Accessed May 9, 2015. Available at: <http://www.arb.ca.gov/msprog/consumer_info/advanced_clean_cars/consumer_acc.htm>

2040, once adopted, will define performance-based goals, policies, and strategies to achieve a collective vision for California's future statewide, integrated, multimodal transportation system. The draft CTP 2040 includes elements of previous plans (CTP 2025 and 2030 Addendum), integrates new ideas and recommendations and builds on the California Interregional Blueprint (CIB) prepared in response to Senate Bill 391 (California Transportation Plan). A draft version of the CTP 2040 was released in March 2015 for public review and comment and is scheduled for approval by the California State Transportation Agency (CalSTA) in December 2015.

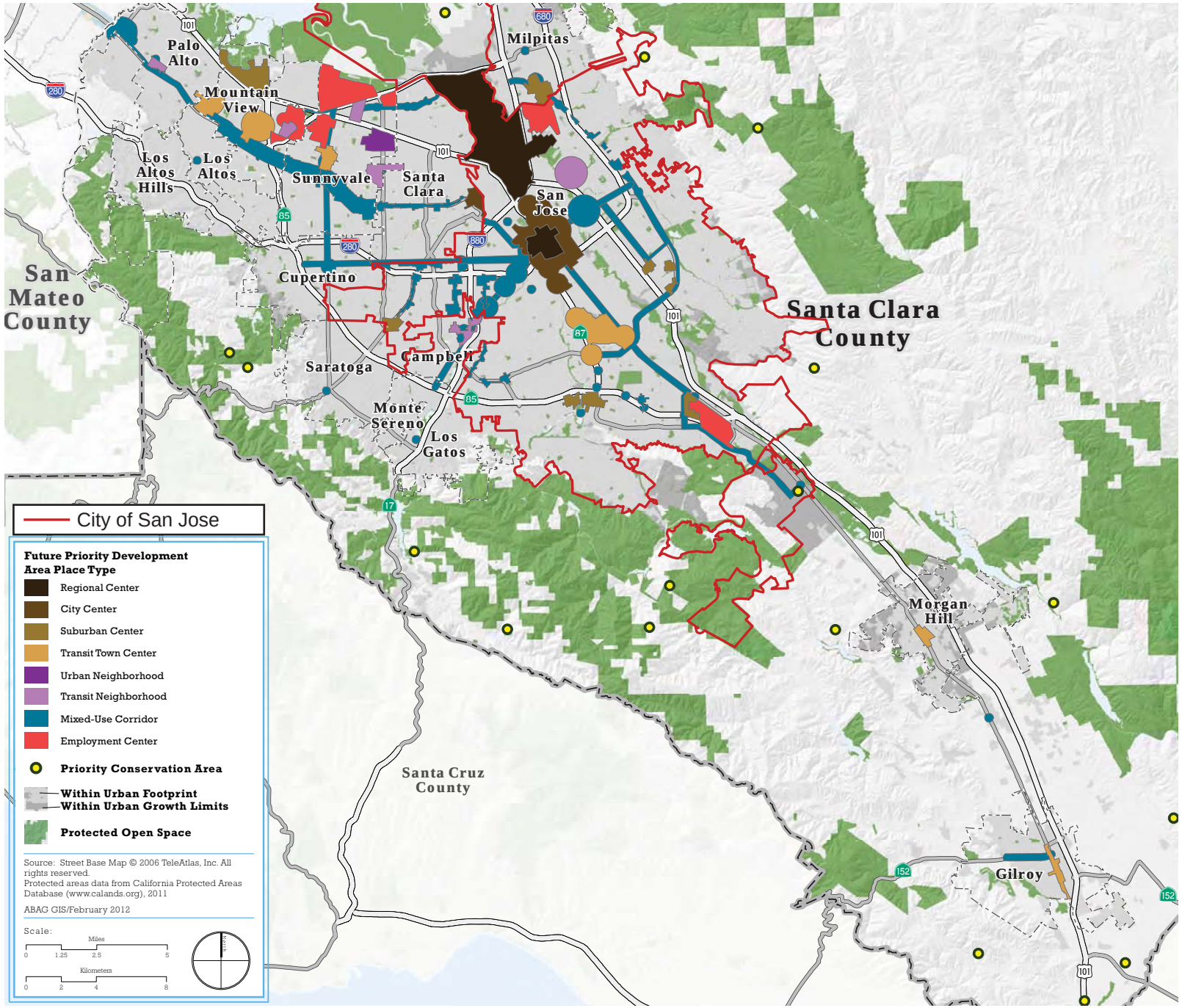
The CTP provides a statewide view of the transportation system and its larger impacts, while the Regional Transportation Plans (RTPs), such as *Plan Bay Area* discussed above, focus on interregional, regional, and local issues, including local commuter bus and rail services, highway and freeway improvements addressing commute congestion, and specific active transportation needs. [27]

The role of local governments in implementation of the CTP is to take the goals and policies of the CTP (including those related to reducing greenhouse gas emissions) into consideration when planning and applying for funding for transportation improvements, especially projects with interregional ramifications. Effective interagency collaboration and the proactive integration of multi-modal and multi-jurisdictional transportation systems statewide are also key goals for operational efficiency.

### *2015 California Interregional Strategic Plan*

Caltrans has a significant role in the development and management of the interregional transportation system,[1] while cities and counties have lead responsibility for managing their local networks and effectively linking to the interregional system. Interregional travel or movement for automobiles and trucks is simply defined as a long-distance, non-commute-related trips. The Interregional Transportation Strategic Plan (ITSP) is a Caltrans document that provides guidance for the identification and prioritization of interregional transportation improvements to be funded in the Interregional Transportation Improvement Program (ITIP) (i.e., for all investment in the interregional transportation system). It is one of the State's long-range planning documents that communicates Caltrans' approach and vision for the interregional transportation system and ongoing long-range planning to improve interregional mobility and accessibility for people, goods, and services throughout the State. The ITSP is designed to take into account a variety of planning considerations, such as land-use decisions, the economy, environmental impacts (such as air and greenhouse gas emissions), energy policies, and public health.

[27] 2015 Interregional Transportation Strategic Plan 2015. p. 3.




PRIORITY DEVELOPMENT AREAS IN SAN JOSE

FIGURE 4.4-2

Renewables Portfolio Standard for Energy Generation

California's Renewables Portfolio Standard (RPS) is one of the most ambitious renewable energy standards in the country. The RPS program required electric corporations to increase procurement from eligible renewable energy resources by at least one percent of their retail sales annually, until they reached 20 percent in 2010. In 2008 then Governor Schwarzenegger established a 33% state renewable goal by 2020 in Executive Order S-14-08.

On April 12, 2011, California Governor Jerry Brown signed Senate Bill 2X into law, requiring that 33 percent of the state's electric generation come from renewable sources by 2020. Under S.B. 2X, all electricity suppliers must meet a 20 percent renewables target by Dec. 31, 2013, a 25 percent target by the end of 2016, and achieve the 33 percent criterion by the end of 2020. S.B. 2X applies to all electricity retailers in the state – investor-owned utilities, municipal utilities and independent sellers. The California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) jointly implement the RPS program. To the extent that several types of renewable energy sources (e.g., hydropower, wind and solar) have limited GHG emissions from power generation compared to energy generated through combustion processes, implementation of this standard would reduce GHG emissions from electric power generation.

California Building Code

The California Building Code consists of standards for the construction of buildings in California, including alterations to existing buildings. It consists of 12 parts, addressing criteria ranging from plumbing to energy efficiency and green building standards.

Energy efficiency requirements are specifically addressed in Title 24, Part 6 of the California Code of Regulations. The most recent building energy efficiency standards for new residential and nonresidential buildings were adopted by the California Energy Commission in 2012 (Title 24, Part 6, of the California Code of Regulations). The 2013 Building and Energy Efficiency Standards went into effect on July 1, 2014. Buildings that are constructed in accordance with the 2013 standards are an estimated 25 percent (residential) to 30 percent (nonresidential) more energy efficient than the previous 2008 standards as a result of improved windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in houses and businesses.[28]

Energy Commission staff estimates that the implementation of the 2013 Building Energy Efficiency Standards may reduce statewide annual electricity consumption by approximately

[28] California Energy Commission. "Energy Commission Approves More Efficient Buildings for California's Future". Accessed: May 9, 2015. Available at: <http://www.energy.ca.gov/releases/2012_releases/2012-05-31_energy_commission_approves_more_efficient_buildings_nr.html>

613 gigawatt-hours per year, electrical peak demand by 195 megawatts, and natural gas consumption by 10 million therms per year.[29] The reduction in energy consumption would proportionally reduce greenhouse gas emissions associated with building operation.

The California Green Building Standards (CALGreen) are in Title 24, Part 11 of the California Building Code and were first adopted by the California Building Standards Commission in 2008. They were the first green building standards adopted in the United States. The purpose of CALGreen is to improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. Categories in CALGreen that effect direct and indirect GHG emissions include energy efficiency, water efficiency and conservation, and material conservation and resource efficiency. The most recent version of the CALGreen standards are part of the 2013 California Building Code.

California Lighting Efficiency Standards (AB 1109)

The California Energy Commission, under the California Lighting Efficiency and Toxics Reduction Act (AB 1109), is required to adopt energy efficiency standards for all general purpose lights, reducing lighting energy usage in indoor residences and state facilities by no less than 50 percent by 2018, as well as require a 25 percent reduction in commercial facilities by that same date. The California Energy Commission has applied its existing appliance efficiency standards (see below) to include lighting products, as well as minimum lumen/watt standards for different categories of lighting products. GHG emissions reductions are associated with reduce energy use.

Appliance Efficiency Regulations

The 2010 Appliance Efficiency Regulations, (California Code of Regulations, Title 20, Sections 1601 through 1608) effective January 1, 2011, were adopted by the California Energy Commission on November 18, 2009. They include standards for both federally-regulated appliances and non-federally-regulated appliances that are sold or offered for sale in California. The regulations include standards for refrigerators, freezers, air conditioners, heaters and furnaces, televisions, and other fixtures and appliances. The appliance efficiency regulations reduce GHG emissions by reducing energy demand.

[29] California Energy Commission. *2013 Building Energy Efficiency Standards for Residential and Nonresidential Buildings.* May 2012. (CEC-400-2012-004-CMF-REV2). Abstract page. Available at: <http://www.energy.ca.gov/title24/2013standards/index.html>

California Environmental Quality Act (CEQA)

Under modifications to the CEQA Guidelines in March 2010, public agencies must consider the effects of greenhouse gas emissions and identify mitigation for greenhouse gas emissions or the effects of greenhouse gas emissions, including but not limited to the effects associated with transportation or energy consumption.

## Regional

Bay Area Air Quality Management District (BAAQMD)

BAAQMD is the regional, government agency that regulates sources of air pollution within the nine San Francisco Bay Area Counties. Several key activities of BAAQMD related to greenhouse gas emissions are described below.

*Regional Clean Air Plans*: BAAQMD and other agencies prepare clean air plans as required under the State and Federal Clean Air Acts. The Bay Area 2010 Clean Air Plan (CAP) provides a comprehensive plan to improve Bay Area air quality and protect public health through implementation of a control strategy designed to reduce emissions and decrease ambient concentrations of harmful pollutants. The most recent CAP also includes measures designed to reduce GHG emissions.

*Bay Area Air Quality Management District Climate Protection Program.* The BAAQMD established a climate protection program to reduce pollutants that contribute to global climate. The climate protection program currently is working towards developing a regional Climate Action Strategy, setting GHG reduction goal and interim targets, rule development, launch of a Climate Change and Public Health Initiative, and exploring the Bay Area's energy future. BAAQMD also seeks to support current climate protection programs in the region and to stimulate additional local action efforts through public education and outreach, technical assistance to local governments and other interested parties, and promotion of collaborative efforts among stakeholders.

*BAAQMD CEQA Air Quality Guidelines*: The BAAQMD CEQA Air Quality Guidelines are intended to serve as a guide for those who prepare or evaluate air quality impact analyses for projects and plans in the San Francisco Bay Area. The Guidelines include information on legal requirements, BAAQMD rules, plans and procedures, methods of analyzing air quality impacts, thresholds of significance, mitigation measures, and background air quality information. In June 2010, the Air District's Board of Directors adopted their CEQA thresholds of significance and an update of their CEQA Guidelines. The CEQA Guidelines review and describe assessment methodologies, and mitigation strategies for criteria pollutants, air toxics, odors, and greenhouse gas emissions.

The BAAQMD CEQA thresholds adopted in 2010 for Plan-level CEQA review employed either a GHG efficiency-based metric or a GHG Reduction Strategy option. If a Plan would result in operational-related greenhouse gas emissions of 6.6 metric tons (MT) per Service Population (residents + employees) per year of carbon dioxide equivalents or more, it would make a cumulatively considerable contribution to greenhouse gas emissions and result in a cumulatively

significant impact to global climate change in 2020. In jurisdictions where a qualified Greenhouse Gas Reduction Strategy has been reviewed under CEQA and adopted by decision-makers, compliance with the Greenhouse Gas Reduction Strategy would reduce a project's contribution to cumulative greenhouse gas emission impacts to a less than significant level.[30]

In December 2010, the California Building Industry Association (CBIA) filed a lawsuit in Alameda County Superior Court challenging toxic air contaminant (TAC) and $PM_{2.5}$ thresholds adopted by BAAQMD in its CEQA Air Quality Guidelines (*California Building Industry Association v. Bay Area Air Quality Management District*, Alameda County Superior Court Case No. RG10548693). One of the identified concerns was inhibiting infill and smart growth in the urbanized Bay Area. On March 5, 2012, the Alameda County Superior Court issued a judgment that BAAQMD had failed to comply with CEQA when it adopted its thresholds. The trial court issued a writ of mandate ordering the District to set aside the thresholds and cease disseminating them until the District fully complies with CEQA. The BAAQMD appealed this ruling, and the First District Court of Appeal overturned the trial court's decision, finding that adopting the thresholds did not amount to a project under CEQA (*California Building Industry Association v. Bay Area Air Quality Management District* (2013) 218 Cal.App.4th 1171). The Court of Appeal also found that the challenged thresholds were supported by substantial evidence. The case is now pending before the California Supreme Court on one issue – whether CEQA review should consider impacts of the environment on the project – which is unrelated to the substance of the significance thresholds or the evidence on which the thresholds are based.

In April 2012, subsequent to adoption of the 2040 General Plan, BAAQMD revised their website in conformance with the superior court order, no longer recommending use of the 2010 thresholds in determining a project's significant air quality impacts. Based on the Court of Appeal's ruling, however, it is reasonable for agencies to conclude that the thresholds are based on substantial evidence and that they represent a reasonable method of determining significance. The City has carefully considered the thresholds prepared by BAAQMD and the court ruling, and considers the thresholds to be based on the best information available for the San Francisco Bay Area Air Basin at this time. Evidence supporting the GHG emissions thresholds has been presented in the following documents:

- BAAQMD. *Thresholds Options and Justification Report*. 2009.
- BAAQMD. *CEQA Air Quality Guidelines.* May 2011. (Appendix D).

<u>Metropolitan Transportation Commission and Association of Bay Area Governments</u>

The Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG) are regional agencies responsible for preparing and periodically updating *Plan Bay Area*. Plan Bay Area is a long-range integrated transportation and land-use/housing strategy through 2040 for the San Francisco Bay Area. On July 18, 2013, the current Plan was jointly approved by the ABAG Executive Board and by the MTC. The Plan includes the region's Sustainable Communities

[30]The required components of a "qualified" Greenhouse Gas Reduction Strategy or Plan are described in both Section 15183.5 of the CEQA Guidelines and the BAAQMD CEQA Air Quality Guidelines (amended 2012).

Strategy (per SB 375) and the 2040 Regional Transportation Plan. Plan Bay Area grew out of the California Sustainable Communities and Climate Protection Act of 2008 (SB 375), which requires each of the state's 18 metropolitan areas – including the Bay Area – to reduce greenhouse gas emissions from cars and light trucks. The law requires that the Sustainable Communities Strategy promote compact, mixed-use commercial and residential development. To meet the goals of SB 375, more of the future development in the Bay Area is planned to be walkable and bikable and close to public transit, jobs, schools, shopping, parks, recreation and other amenities. Refer to page ___ for a discussion of this regional plan and a map showing Priority Development Areas (PDAs) designated within the City of San José.

## City of San José

Greenhouse Gas Reduction Strategy

To meet the requirements of CEQA, AB32, and SB 375, the City of San José prepared a *Greenhouse Gas Reduction Strategy* (GHG Reduction Strategy), in conjunction with the 2040 General Plan.[31] The GHG Reduction Strategy builds on the City's efforts to reduce greenhouse gas emissions, including the Green Vision and Zero Waste Strategy. The GHG Reduction Strategy provides:

- quantification of existing GHG emissions and projections for 2020 and 2035 (prepared in 2011),
- the City's approach to establishing and achieving GHG reduction targets,
- strategies and performance measures for further reducing GHG emissions; and
- an implementation program for monitoring, progress reporting, and updating the GHG Reduction Strategy over time as new technologies or practical measures are identified.

The GHG Reduction Strategy consists of a phased approach to build upon existing GHG emission inventories, improve reduction strategies, and confirm that the City is on track to first meet targets per AB 32 and City policies. It includes performance criteria against which the City's future actions can be evaluated.[32] The strategies and performance measures are based on 2040 General Plan policies and actions that are known to reduce GHG emissions and are separated into four categories:

- Built Environment and Energy (BEE)
- Recycling and Waste Reduction (RWR)
- Land Use and Transportation (LUT)
- Other GHG Reduction Measures (OM)

Some of the measures set forth in the GHG Reduction Strategy are mandatory for all proposed development projects, while others are voluntary. Voluntary measures could be incorporated as mitigation measures for proposed projects, at the City's discretion.

[31] The GHG Reduction Strategy is included as Appendix 8 of the General Plan and Appendix B of this Supplemental PEIR.

32 More specific performance criteria than the policies in the General Plan will be included in a GHG Reduction City Council Policy that will be developed to assist in interpreting and implementing the City's strategy.

The GHG Reduction Strategy is intended to meet the mandates as outlined in the CEQA Guidelines and the standards for "qualified plans" as set forth by BAAQMD. Therefore, future projects that are consistent with the GHG Reduction Strategy would have a less than significant impact related to GHG emissions through 2020. Consistency with the GHG Reduction Strategy is based on compliance with the mandatory measures and any voluntary measures required by the City, as well as consistency with the land use designations on the General Plan Land Use/Transportation Diagram.

Envision San José 2040 General Plan

Various policies in the City's General Plan have been adopted for the purpose of reducing or avoiding impacts related to GHG, as listed in the following table. These measures are incorporated into the GHG Reduction Strategy and identified as "policies to be implemented as part of development review for residential, commercial, industrial, institutional, and municipal projects". Mandatory measures are denoted with an asterisk.

**Table 4.4-2**
**General Plan Policies Incorporated into GHG Reduction Strategy**

| **BUILT ENVIRONMENT AND ENERGY** |
|---|
| *** MS-1.1:** Continue to demonstrate leadership in the development and implementation of green building policies and practices. Ensure that all projects are consistent with and/or exceed the City's Green Building Ordinance and City Council Policies as well as State or regional policies which require that projects incorporate various green building principles into their design and construction. |
| *** MS-1.2:** Continually increase the number and proportion of buildings within San José that make use of green building practices by incorporating those practices into both new construction and retrofit of existing structures. |
| *** MS-2.3:** Encourage consideration of solar orientation, including building placement, landscaping, design and construction techniques for new construction to minimize energy consumption. |
| **MS-2.7:** Encourage the installation of solar panels or other clean energy power generation sources over parking areas. |
| **** MS-2.8:** Develop policies which promote energy reduction for energy-intensive industries. For facilities such as data centers, which have high energy demand and indirect greenhouse gas emissions, require evaluation of operational energy efficiency and inclusion of operational design measures as part of development review consistent with benchmarks such as those in EPA's EnergyStar Program for new data centers. |
| *** MS-2.11:** Require new development to incorporate green building practices, including those required by the Green Building Ordinance. Specifically, target reduced energy use through construction techniques (e.g., design of building envelopes and systems to maximize energy performance), through architectural design (e.g. design to maximize cross ventilation and interior daylight) and through site design techniques (e.g. orienting buildings on sites to maximize the effectiveness of passive solar design). |

**Table 4.4-2**
**General Plan Policies Incorporated into GHG Reduction Strategy**

| |
|---|
| **MS-14.3:** Consistent with the California Public Utilities Commission's California Long Term Energy Efficiency Strategic Plan, as revised, and when technological advances make it feasible, require all new residential and commercial construction to be designed for zero net energy use. |
| *** MS-14.4:** Implement the City's Green Building Policies (see Green Building Section) so that new construction and rehabilitation of existing buildings fully implements industry best practices, including the use of optimized energy systems, selection of materials and resources, water efficiency, sustainable site selection, passive solar building design, and planting of trees and other landscape materials to reduce energy consumption. |
| **MS-14.5:** Consistent with State and Federal policies and best practices, require energy efficiency audits and retrofits prior to or at the same time as consideration of solar electric improvements. |
| **MS-15.3:** Facilitate the installation of at least 100,000 solar roofs in San José by 2022 and at least 200,000 solar roofs by 2040. |
| **MS-16.2:** Promote neighborhood-based distributed clean/renewable energy generation to improve local energy security and to reduce the amount of energy wasted in transmitting electricity over long distances. |
| **MS-17.2:** Ensure that development within San José is planned and built in a manner consistent with sustainable use of current and future water supplies by encouraging sustainable development practices, including low-impact development, water-efficient development and green building techniques. Support the location of new development within the vicinity of the recycled water system and promote expansion of the SBWR system to areas planned for new development. Residential development outside of the Urban Service Area will only be approved at minimal levels and only allowed to use non-recycled water at urban intensities. For residential development outside of the Urban Service Area, restrict water usage to well water, rainwater collection or other similar sustainable practice. Non-residential development may use the same sources and potentially make use of recycled water, provided that its use will not result in conflicts with other General Plan policies, including geologic or habitat impacts. To maximize the efficient and environmentally beneficial use of water, outside of the Urban Service Area, limit water consumption for new development so that it does not diminish the water supply available for projected development within San José 's urbanized areas. |
| **MS-18.4:** Retrofit existing development to improve water conservation. |
| **MS-19.4:** Require the use of recycled water wherever feasible and cost-effective to serve existing and new development. |
| **MS-21.3:** Ensure that San José's Community Forest is comprised of species that have low water requirements and are well adapted to its Mediterranean climate. Select and plant diverse species to prevent monocultures that are vulnerable to pest invasions. Furthermore, consider the appropriate placement of tree species and their lifespan to ensure the perpetuation of the Community Forest. |

**Table 4.4-2**
**General Plan Policies Incorporated into GHG Reduction Strategy**

## RECYCLING AND WASTE REDUCTION MEASURES

**MS-6.5:** Reduce the amount of waste disposed in landfills through waste prevention, reuse, and recycling of materials at venues, facilities, and special events.

**LU-7.3:** Encourage the use of industrially-planned land to provide locations for various forms of recycling services (e.g., collection, handling, transfer, processing, etc.), for the support facilities required by these services (e.g., service yards, truck storage and service) and for companies that manufacture new products out of recycled materials in order to support the City's Solid Waste Program.

**LU-16.4:** Development approvals that include demolition of a structure eligible for or listed on the Historic Resources Inventory shall require the salvage of the resource's building materials and architectural elements as to allow re-use those elements and materials and avoid the energy costs of producing new and disposing of old building materials.

## LAND USE AND TRANSPORTATION MEASURES

*** CD-2.1:** Promote the Circulation Goals and Policies in this Plan. Create streets that promote pedestrian and bicycle transportation by following applicable goals and policies in the Circulation section of this Plan.

a) Design the street network for its safe shared use by pedestrians, bicyclists, and vehicles. Include elements that increase driver awareness.
b) Create a comfortable and safe pedestrian environment by implementing wider sidewalks, shade structures, attractive street furniture, street trees, reduced traffic speeds, pedestrian-oriented lighting, mid-block pedestrian crossings, pedestrian-activated crossing lights, bulb-outs and curb extensions at intersections, and on-street parking that buffers pedestrians from vehicles.
c) Consider support for reduced parking requirements, alternative parking arrangements, and Transportation Demand Management strategies to reduce area dedicated to parking and increase area dedicated to employment, housing, parks, public art, or other amenities. Encourage de-coupled parking to ensure that the value and cost of parking are considered in real estate and business transactions.

**CD-2.3:** Enhance pedestrian activity by incorporating appropriate design techniques and regulating uses in private developments, particularly in Downtown, Villages, Corridors, Main Streets, and other locations where appropriate. a) Include attractive and interesting pedestrian-oriented streetscape features such as street furniture, pedestrian scale lighting, pedestrian oriented way-finding signage, clocks, fountains, landscaping, and street trees that provide shade, with improvements to sidewalks and other pedestrian ways. b) Strongly discourage drive-up services and other commercial uses oriented to occupants of vehicles in pedestrian-oriented areas. Uses that serve the vehicle, such as car washes and service stations, may be considered appropriate in these areas when they do not disrupt pedestrian flow, are not concentrated in one area, do not break up the building mass of the streetscape, are consistent with other policies in this Plan, and are compatible with the planned uses of the area. c) Provide pedestrian connections as outlined in the Community Design Connections Goal and Policies. d) Locate retail and other active uses at the street level. e) Create easily identifiable and accessible building entrances located on street frontages or paseos. f) Accommodate the physical needs of elderly populations and persons with disabilities. g) Integrate existing or proposed transit stops into project designs.

**Table 4.4-2**
**General Plan Policies Incorporated into GHG Reduction Strategy**

| |
|---|
| **CD-2.5:** Integrate Green Building Goals and Policies of this Plan into site design to create healthful environments. Consider factors such as shaded parking areas, pedestrian connections, minimization of impervious surfaces, incorporation of stormwater treatment measures, appropriate building orientations, etc. |
| **CD-2.10:** Recognize that finite land area exists for development and that density supports retail vitality and transit ridership. Use land regulations to require compact, low-impact development that efficiently uses land planned for growth, particularly for residential development which tends to have a long lifespan. Strongly discourage small-lot and single-family detached residential product types in growth areas. |
| **CD-2.11:** Within the Downtown and Urban Village Overlay areas, consistent with the minimum density requirements of the pertaining Land Use/Transportation Diagram designation, avoid the construction of surface parking lots except as an interim use, so that long-term development of the site will result in a cohesive urban form. In these areas, whenever possible, use structured parking, rather than surface parking, to fulfill parking requirements. Encourage the incorporation of alternative uses, such as parks, above parking structures. |
| *** CD-3.2:** Prioritize pedestrian and bicycle connections to transit, community facilities (including schools), commercial areas, and other areas serving daily needs. Ensure that the design of new facilities can accommodate significant anticipated future increases in bicycle and pedestrian activity. |
| *** CD-3.3:** Within new development, create a pedestrian friendly environment by connecting the internal components with safe, convenient, accessible, and pleasant pedestrian facilities and by requiring pedestrian connections between building entrances and other site features and adjacent public streets. |
| *** CD-3.4:** Encourage pedestrian cross-access connections between adjacent properties and require pedestrian and bicycle connections to streets and other public spaces, with particular attention and priority given to providing convenient access to transit facilities. Provide pedestrian and vehicular connections with cross-access easements within and between new and existing developments to encourage walking and minimize interruptions by parking areas and curb cuts. |
| *** CD-3.6:** Encourage a street grid with lengths of 600 feet or less to facilitate walking and biking. Use design techniques such as multiple building entrances and pedestrian paseos to improve pedestrian and bicycle connections. |
| *** CD-3.8:** Provide direct access from developments to adjacent parks or open spaces, and encourage residential development to provide common open space contiguous to such areas. |
| *** CD-3.10:** New development should increase neighborhood connectivity by providing access across natural barriers (e.g., rivers) and man-made barriers (e.g., freeways). |
| *** CD-5.1:** Design areas to promote pedestrian and bicycle movements and to facilitate interaction between community members and to strengthen the sense of community. |

**Table 4.4-2**
**General Plan Policies Incorporated into GHG Reduction Strategy**

| |
|---|
| **CD-5.2:** Foster a culture of walking by designing walkable urban spaces; strategically locating jobs, residences and commercial amenities; providing incentives for alternative commute modes; and partnering with community groups and health services organizations to promote healthy life-styles for San José residents. |
| **CD-7.6:** Incorporate a full range of uses in each Village Plan to address daily needs of residents, businesses, and visitors in the area. Consider retail, parks, school, libraries, day care, entertainment, plazas, public gathering space, private community gathering facilities, and other neighborhood-serving uses as part of the Village planning process. Encourage multi-use spaces wherever possible to increase flexibility and responsiveness to community needs over time. |
| **PR-8.5** Encourage all developers to install and maintain trails when new development occurs adjacent to a designated trail location. Use the City's Parkland Dedication Ordinance and Park Impact Ordinance to have residential developers build trails when new residential development occurs adjacent to a designated trail location, consistent with other parkland priorities. Encourage developers or property owners to enter into formal agreements with the City to maintain trails adjacent to their properties. |
| **LU-2.1:** Provide significant job and housing growth capacity within strategically identified "Growth Areas" in order to maximize use of existing or planned infrastructure (including fixed transit facilities), minimize the environmental impacts of new development, provide for more efficient delivery of City services, and foster the development of more vibrant, walkable urban settings. |
| **LU-2.2:** Include within the General Plan Land Use / Transportation Diagram significant job and housing growth capacity within Downtown, Specific Plan Areas, Employment Lands, and Urban Villages. [*summarized*] |
| **LU-2.3:** To support the intensification of identified Growth Areas, and to achieve the various goals related to their development throughout the City, restrict new development on properties in non-Growth Areas. |
| **LU-2.4:** To accomplish the planned intensification of employment and residential uses at the Berryessa BART station, modify existing entitlements to expand the area planned for employment uses and to increase the density of employment and residential areas within the BART Station Village area. |
| **LU-3.5:** Balance the need for parking to support a thriving Downtown with the need to minimize the impacts of parking upon a vibrant pedestrian and transit oriented urban environment. Provide for the needs of bicyclists and pedestrians, including adequate bicycle parking areas and design measures to promote bicyclist and pedestrian safety. |
| **** LU-3.6:** Prohibit uses that serve occupants of vehicles (such as drive-through windows) and discourage uses that serve the vehicle (such as car washes and service stations), except where they do not disrupt pedestrian flow, are not concentrated, do not break up the building mass of the streetscape, and are compatible with the planned uses of the area. |
| **LU-5.2:** To facilitate pedestrian access to a variety of commercial establishments and services that meet the daily needs of residents and employees, locate neighborhood-serving commercial uses throughout the city, including identified growth areas and areas where there is existing or future demand for such uses. |

**Table 4.4-2**
**General Plan Policies Incorporated into GHG Reduction Strategy**

| |
|---|
| **LU-5.3:** Encourage new and intensification of existing commercial development in vertical mixed-use projects and, in some instances, integrated horizontal mixed-use projects, consistent with the Land Use / Transportation Diagram. |
| *** LU-5.4:** Require new commercial development to facilitate pedestrian and bicycle access through techniques such as minimizing building separation from public sidewalks; providing safe, accessible, convenient, and pleasant pedestrian connections; and including secure and convenient bike storage. |
| *** LU-5.5:** Provide pedestrian and vehicular connections between adjacent commercial properties with reciprocal-access easements to encourage safe, convenient, and direct pedestrian access and "one-stop" shopping. Encourage and facilitate shared parking arrangements through parking easements and cross-access between commercial properties to minimize parking areas and curb-cuts. |
| **LU-6.4:** Encourage the development of new industrial areas and the redevelopment of existing older or marginal industrial areas with new industrial uses, particularly in locations which facilitate efficient commute patterns. Use available public financing to provide necessary infrastructure improvements as one means of encouraging this economic development and revitalization. |
| **LU-7.3:** Encourage the use of industrially-planned land to provide locations for various forms of recycling services (e.g., collection, handling, transfer, processing, etc.), for the support facilities required by these services (e.g., service yards, truck storage and service) and for companies that manufacture new products out of recycled materials in order to support the City's Solid Waste Program. |
| *** LU-9.1:** Create a pedestrian-friendly environment by connecting new residential development with safe, convenient, accessible, and pleasant pedestrian facilities. Provide such connections between new development, its adjoining neighborhood, transit access points, schools, parks, and nearby commercial areas. Consistent with Transportation Policy TR-2.11, prohibit the development of new cul-de-sacs or gated communities that do not provide through- and publicly-accessible bicycle and pedestrian connections. |
| **LU-9.2:** Facilitate the development of complete neighborhoods by allowing appropriate commercial uses within or adjacent to residential and mixed-use neighborhoods. |
| **LU-10.1:** Develop land use plans and implementation tools that result in the construction of mixed-use development in appropriate places throughout the City as a means to establish walkable, complete communities. |
| **LU-10.3:** Develop residentially- and mixed-use-designated lands adjacent to major transit facilities at high densities to reduce motor vehicle travel by encouraging the use of public transit. |
| **LU-10.4:** Within identified growth areas, develop residential projects at densities sufficient to support neighborhood retail in walkable, main street type development. |
| **LU-10.5:** Facilitate the development of housing close to jobs to provide residents with the opportunity to live and work in the same community. |

**Table 4.4-2**
**General Plan Policies Incorporated into GHG Reduction Strategy**

| |
|---|
| **LU-10.6:** In identified growth areas, do not approve decreases in residential density through zoning change or development entitlement applications or through General Plan amendments. |
| **LU-10.8:** Encourage the location of schools, private community gathering facilities, and other public/quasi public uses within or adjacent to Villages, Corridors and other growth areas and encourage these uses to be developed in an urban form and in a mixed-use configuration. |
| **LU-10.9:** Model the federal Interagency Partnership for Sustainable Communities (HUD-DOT-EPA) at the local level between Housing and other City Departments to facilitate the creation of smart growth communities. |
| **LU-16.1:** Integrate historic preservation practices into development decisions based upon fiscal, economic, and environmental sustainability. |
| **LU-16.2:** Evaluate the materials and energy resource consumption implications of new construction to encourage preservation of historic resources. |
| **** LU-16.4:** Development approvals that include demolition of a structure eligible for or listed on the Historic Resources Inventory shall require the salvage of the resource's building materials and architectural elements as to allow re-use those elements and materials and avoid the energy costs of producing new and disposing of old building materials. |
| **LU-17.1:** Maintain the Greenline/Urban Growth Boundary to delineate the extent of existing and future urban activity and to reinforce fundamental policies concerning the appropriate location of urban development. |
| **TR-1.1:** Accommodate and encourage use of non-automobile transportation modes to achieve San José's mobility goals and reduce vehicle trip generation and vehicle miles traveled (VMT). |
| **TR-1.4:** Through the entitlement process for new development fund needed transportation improvements for all transportation modes, giving first consideration to improvement of bicycling, walking and transit facilities. Encourage investments that reduce vehicle travel demand. |
| **TR-1.13:** Reduce vehicle capacity on streets with projected excess capacity by reducing either the number of travel lanes or the roadway width, and use remaining public right-of-way to provide wider sidewalks, bicycle lanes, transit amenities and/or landscaping. Establish criteria to identify roadways for capacity reduction (i.e., road diets) and conduct engineering studies and environmental review to determine implementation feasibility and develop implementation strategies. |
| **TR-2.2:** Provide a continuous pedestrian and bicycle system to enhance connectivity throughout the City by completing missing segments. Eliminate or minimize physical obstacles and barriers on City streets that impede pedestrian and bicycle movement, including consideration of grade-separated crossings at railroad tracks and freeways. Provide safe bicycle and pedestrian connections to all facilities regularly accessed by the public, including the San José International Airport. |

**Table 4.4-2**
**General Plan Policies Incorporated into GHG Reduction Strategy**

| |
|---|
| **TN-2.7:** Encourage all developers to install and maintain trails when new development occurs adjacent to a designated trail location, in accordance with Policy PR-8.5. |
| ***TR-2.8:** Require new development to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements. |
| ***** **TR-2.11:** Prohibit the development of new cul-de-sacs, unless it is the only feasible means of providing access to a property or properties, or gated communities that do not provide through and publicly accessible bicycle and pedestrian connections. Pursue the development of new through bicycle and pedestrian connections in existing cul-de-sac areas where feasible. |
| ***** **TR-2.18:** Provide bicycle storage facilities as identified in the Bicycle Master Plan. |
| ***** **TR-3.3:** As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute toward transit ridership. In addition, require that new development is designed to accommodate and to provide direct access to transit facilities. |
| **TR-3.9:** Ensure that all street improvements allow for easier and more efficient bus operations and improved passenger access and safety, while maintaining overall pedestrian and bicycle safety and convenience. |
| **TR-5.3:** The minimum overall roadway performance during peak travel periods should be level of service "D" except for designated areas. *An exception to the level of service "D" standard that reinforces multimodal improvements and transportation alternatives is listed below.*<br>**Protected Intersections.** In recognition that roadway capacity-enhancing improvement measures can impede the City's ability to encourage infill, preserve community livability, and promote transportation alternatives that do not solely rely on automobile travel, specially designated Protected Intersections are exempt from traffic mitigation measures. Protected Intersections are located in Special Planning Areas where proposed developments causing a significant LOS impact at a Protected Intersection are required to construct multimodal (non-automotive) transportation improvements in one of the City's designated Community Improvement Zones. These multimodal improvements are referred to as off-setting improvements and include improvements to transit, bicycle, and/or pedestrian facilities. |
| **TR-6.1:** Minimize potential conflicts between trucks and pedestrian, bicycle, transit, and vehicle access and circulation on streets with truck travel. |
| ***** **TR-6.7:** As part of the project development review process, ensure that adequate off-street loading areas in new large commercial, industrial, and residential developments are provided, and that they do not conflict with pedestrian, bicycle, or transit access and circulation. |
| ****** **TR-7.1:** Require large employers to develop TDM programs to reduce the vehicle trips generated by their employees. |

**Table 4.4-2**
**General Plan Policies Incorporated into GHG Reduction Strategy**

| |
|---|
| **TR-8.1:** Promote transit-oriented development with reduced parking requirements and promote amenities around appropriate transit hubs and stations to facilitate the use of available transit services. |
| **TR-8.2:** Balance business viability and land resources by maintaining an adequate supply of parking to serve demand while avoiding excessive parking supply that encourages automobile use. |
| **TR-8.3:** Support using parking supply limitations and pricing as strategies to encourage use of non-automobile modes. |
| **TR-8.4:** Discourage, as part of the entitlement process, the provision of parking spaces significantly above the number of spaces required by code for a given use. |
| **TR-8.5:** Promote participation in car share programs to minimize the need for parking spaces in new and existing development. |
| **TR-8.6:** Allow reduced parking requirements for mixed-use developments and for developments providing shared parking or a comprehensive TDM program, or developments located near major transit hubs or within Villages and Corridors and other growth areas. |
| **TR-8.8:** Promote use of unbundled private off-street parking associated with existing or new development, so that the sale or rent of a parking space is separated from the rent or sale price for a residential unit or for non-residential building square footage. |
| **TR-8.9:** Consider adjacent on-street and City-owned off-street parking spaces in assessing need for additional parking required for a given land use or new development. |
| **TR-8.12:** As part of the entitlement process, consider opportunities to reduce the number of parking spaces through shared parking, TDM actions, parking pricing or other measures which can reduce parking demand. Consider the use of reserve landscaped open space or recreational areas that can be used on a short-term basis to provide parking or converted to formal parking in the future if necessary. |
| **TR-9.1:** Enhance, expand and maintain facilities for walking and bicycling, particularly to connect with and ensure access to transit and to provide a safe and complete alternative transportation network that facilitates non-automobile trips. |
| **TN-2.2:** Provide direct, safe and convenient bicycle and pedestrian connections between the trail system and adjacent neighborhoods, schools, employment areas and shopping areas. |
| **TN-2.7:** Encourage all developers to install and maintain trails when new development occurs adjacent to a designated trail location, in accordance with Policy PR-8.5. |
| **OTHER GHG REDUCTION MEASURES** |
| **LU-12.1:** Maintain existing and facilitate the development of new and expanded community gardens and farmers markets throughout San José, prioritizing the provision of these gardens in low income, nutritionally-deficient neighborhoods. |

**Table 4.4-2**
**General Plan Policies Incorporated into GHG Reduction Strategy**

| |
|---|
| **LU-12.2:** Support urban agriculture opportunities such as back-yard, roof-top, indoor, and other gardens that produce ecologically sound food for personal consumption. Encourage developers to incorporate gardens that produce ecologically sound food for residents and workers. |

**Source:** GHG Reduction Strategy: Greenhouse Gas Reduction Policies To Be Implemented As Part of Development Review For Residential, Commercial, Industrial, Institutional, and Municipal Projects. (Sub-Appendix B in Appendix B of this Supplemental PEIR)
**Notes:**
***** Mandatory measures for all proposed development projects.
****** Mandatory measures applicable to specific project types.

Municipal Code

The City's Municipal Code includes the following regulations that would reduce GHG emissions from future development allowed under the 2040 General Plan:

- Green Building Ordinance (Chapter 17.84)
- Water Efficient Landscape Standards for New and Rehabilitated Landscaping (Chapter 15.10)
- Construction and Demolition Diversion Deposit Program (Chapter 9.10)
- Wood Burning Ordinance (Chapter 9.11)

Implementation of these regulations reduces GHG emissions during and after site development and redevelopment.

Green Vision

The City of San José's Green Vision is a comprehensive 15-year plan to create jobs, preserve the environment, and improve quality of life in the community. Key goals in the Green Vision that could substantially reduce GHG emissions if implemented in whole or in part include reducing per capita energy use by 50 percent, increasing the amount of electric power received from clean renewable sources to 100 percent, build or retrofit buildings with green features, divert 100 percent of the waste from our landfill and convert waste to energy, recycle or beneficially reuse 100 percent of wastewater (100 million gallons per day), ensure that 100 percent of public fleet vehicles run on alternative fuels, plant 100,000 new trees and replace 100 percent of City streetlights with smart, zero emission lighting, and create 100 miles of interconnected trails that will allow residents to travel more easily by bicycle or on foot.

On January 12, 2010, the City Council adopted the following revised greenhouse gas reduction targets for incorporation into the General Plan:

2015: GHG emissions 15% below 2005 levels[33]
2020: GHG emissions 20% below 2005 levels
2030: GHG emissions 35% below 2005 levels
2040: GHG emissions 65% below 2005 levels
2050: GHG emissions 80% below 2005 levels

These targets were based upon a comparison to the Kyoto protocol standard[34] and adopted by the California Air Resources Board through AB 32, the state's 2006 Climate Action legislation.[35] Estimated community-wide emissions for San José in 2008, the closest date for which the City has an estimate, were 7.61 MMT $CO_2e$. A 15 percent reduction below 2008 levels would be about 6.5 MMT $CO_2e$ per year. An 80 percent reduction below 2008 levels would be about 1.5 MMT $CO_2e$ per year.

Key achievements and progress related to reducing greenhouse gas emissions highlighted in the City's latest Green Vision Annual Report for the 2014 calendar year include:

- During 2013-2014, Silicon Valley Energy Watch (SVEW) delivered 850 energy efficiency retrofit projects to Santa Clara County PG&E utility customers, reducing energy use by over 11.5 million kWh, enough to power nearly 1,060 U.S. homes for one year.
- Launched the Property Assessed Clean Energy program in May 2014 and completed 195 residential projects.
- Through 2014, the City has 30 solar energy systems installed at City sites with a total generation capacity of 4.8 megawatts (MW).
- By the end of 2014, 9,055solar photovoltaic (PV) systems with a total capacity of 80.8 MW have been installed at homes, businesses, and industrial facilities in San José.
- Added nearly one million square feet of certified private sector green building space in 2014.
- More than 2.1 million square feet of City facilities have achieved green building certification since 2004.
- Continued to have among the highest solid waste diversion rates in the nation including a 73 percent overall diversion rate and 90 percent diversion rate in City facilities.

[33] The 2008 Community-wide emissions inventory is the closest date for which the City has an estimate.
[34] The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions.
[35] The Kyoto protocols and AB 32 include a comparison of GHG emissions to 1990 levels. However, as California began developing the local government implementation protocol, it was acknowledged that municipalities were having difficulty gathering verifiable data back to 1990. California's Climate Change Scoping Plan, adopted in December 2008, recommended local governments reduce GHG emissions 15% below current levels (2008) by 2020 to achieve AB 32 reductions goals. The targets for community-wide GHG emissions were intended to be both aggressive and achievable given operational and budget constraints, and will meet or exceed AB 32 Recommendations.

- The City and partner Zero Waste Energy Development Company (ZWED) opened the world's largest dry fermentation anaerobic digestion (AD) facility to convert commercial organic waste into 1.6MW of renewable energy and 32,000 tons compost.
- The City's contracted haulers converted 76 residential waste collection trucks from diesel fuel to compressed natural gas, generating cleaner emissions and significantly reducing greenhouse gas emissions.
- A record 785 customers used an average of 14.1 million gallons of recycled water per day, made possible by a 142-mile long network of recycled water pipelines.
- Maintained 41 percent of the City's vehicle fleet to run on alternative fuel with a total of 974 alternative fuel vehicles.
- The City maintained 41 percent of its vehicle fleet to run on alternative fuel, with a total of 991 alternative fuel vehicles.
- Through a partnership with Our City Forest, 1,749 new trees were planted. A total of 12,289 trees have been planted since 2007, sequestering approximately 479.3 metric tons of carbon dioxide equivalents, comparable to the annual greenhouse gas emissions from 101 passenger vehicles.
- San José converted nearly 2,130 streetlights to smart Light Emitting Diode (LED) streetlights in 2014. To date, approximately 5,530 LED streetlights have been installed, saving the City more than 1.88 million kWh of electricity annually.
- The City completed 19 miles of on-street bikeways for a total of 240 miles of on street bikeways and reached 56.8 miles of off-street trails to date.
- San José bicyclists took 19,562 trips, offsetting 14,278 pounds of carbon dioxide through the Bay Area Bike Share Program.

The City continues to implement the Green Vision through annual work plans for municipal operations and community activities and the built environment.

City Council Policies

The City's Environmentally Preferable Procurement Policy (Council Policy 4-6) calls for purchasing vehicles with best available fuel efficiency and other measures that directly or indirectly reduce greenhouse gas emission. Other City Council policies for reducing energy and water use would in turn reduce GHG emissions. The Private Sector Green Building Policy (City Council Policy 6-32) establishes baseline green building standards for private sector new construction and provides a framework for the implementation of these standards. The green building standards required by this policy are intended to advance greenhouse gas reduction and other sustainability strategies outlined in the City's Green Vision.

Energy Efficiency Programs

The City of San José is a partner, along with Pacific Gas & Electric Company, and Ecology Action in the Silicon Valley Energy Watch (SVEW) program. This program assists municipal governments, non-profits, small businesses, community organizations, professionals, and residents Santa Clara County take advantage of cost-saving, energy-efficient technologies. The program offers free energy

audits, targeted retrofits, technical assistance, education, and training. Reductions in energy use reduce GHG emissions associated with electricity generation or natural gas use.

In addition to the SVEW program, energy upgrade financing, known as Property Assessed Clean Energy (PACE) financing, is available to San José property owners. Legislation passed by the State of California and further approved by the City of San José enables San José property owners to finance a wide range of energy and water efficiency upgrades by attaching this financing to the property tax bill. Upgrades such as solar installations, attic insulation, energy efficient windows, water-on-demand water heaters, grey water systems, and more are covered.

#### 4.4.1.3 *California's Greenhouse Gas Emissions and Relative Global Contribution*

From a geopolitical[36] perspective, California ranks second in the United States in total greenhouse gas emissions; following Texas which remains as the No. 1 GHG emitting state. From a per capita and per gross domestic product (GDP) standpoint, however, California has the 45th and 46th lowest emissions in the nation, respectively. On an international scale, calculated as if it were its own nation, California has the 20th largest greenhouse gas emissions and the 38th largest per capita emissions for year 2010.[37]

**California's Statewide GHG Inventory**

The California GHG inventory compiles statewide anthropogenic GHG emissions and sinks.[38] Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the transportation, utility, industrial/manufacturing, residential, commercial and agricultural sectors.

2000-2008 Statewide Emissions

Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions between 2000-2008 accounting for 36.5 percent of total GHG emissions in the state. This sector was followed by the electric power generation sector including both in-state and out-of-state sources (24 percent) and the industrial sector (21 percent).

California's gross emissions of greenhouse gas increased 4.3 percent from 458 million metric tons (MMT) of $CO_2e$ in 2000 to 477.7 million in 2008, with a maximum of 483.9 million in 2004. During the same period, California's population grew by 11.8 percent from 34.1 to 38.1 million people and

[36] In this context, geopolitical refers to human-made boundaries, such as state and national boundaries that include specific land areas.
[37] California Air Resources Board. 2014. *California Greenhouse Gas Inventory for 2000-2012 Technical Support Document.* Available at: < http://www.arb.ca http://www.arb.ca.gov/cc/inventory/pubs/reports/ghg_inventory_00-12_report.pdf>.
[38] California Air Resources Board. 2014. *California Greenhouse Gas Inventory for 2000-2012.* Accessed: May 9, 2015. Available at: < http://www.arb.ca.gov/cc/inventory/data/data.htm>.

GHG emissions per person decreased from 13.4 to 12.5 metric tons of $CO_2e$ per person.[39] GHG emissions per service population (population+jobs) decreased from about 9.2 to 8.6.[40]
In 2008, due in part to fuel prices, there was a slight decrease in vehicle miles travelled on California highways. Emissions from electric power generation varied with hydrologic conditions and the amount hydropower that was produced in-state or imported. There was no clear overall trend for industrial emissions over the period and emissions from the commercial and residential sectors remained about the same over the 2000-2008 period.[41]

2000-2012 Statewide Emissions

The statewide GHG inventory was updated in 2014 for 2000 to 2012 emissions. This update used the GWPs in the IPCC Fourth Assessment Report, which are slightly different for some compounds than those used for the 2000-2008 inventory.[42]

In 2012, the overall emissions in California totaled 459 MMT of $CO_2e$. The California transportation sector remains the single largest source of GHG emissions, producing 36.5 percent of the State's total emissions. Electricity production and consumption was the second largest source (20.7 percent) and Industrial activities were the third largest source (19.4 percent). Other major sectors of GHG emissions were commercial and residential, recycling and waste, high GWP compounds, and agriculture.

The 2012 inventory demonstrates that as the state's gross domestic product continues to rise –by 5 percent since 2009 – the carbon intensity, which is the amount of carbon pollution related to the state's overall economy, has fallen steadily over the same time period. This demonstrates that California is getting more economic development for each ton of greenhouse gases emitted overall.

Emissions from the transportation sector –still California's largest single source of greenhouse gases at 36 percent of total emissions– declined marginally compared to 2011, even while the economy continued to grow. The long term direction of transportation-related GHG emissions is another clear trend, with a 12-percent drop over the past seven years.

[39] Ibid.
[40] Service population estimated from California Department of Finance CACPs Two Year Report. Accessed June 10, 2015. Available at: <http://www.dof.ca.gov/research/demographic/reports_papers/documents/CACPS_2YearReport_2000-2011.pdf>
[41] California Air Resources Board. *Trends in California Greenhouse Gas Emissions for 2000 to 2008 – by Category as Defined in the Scoping Plan.* May 9, 2010. Available at: http://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2008/ghg_inventory_trends_00-08_2010-05-12.pdf.
[42] As a result, the GWP of methane changed from 21 to 25, the GWP for nitrous oxide decreased, and the GWPs for hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs) were updated. For comparability between years, the emissions in all of the 2000 – 2012 years were updated in the 2000-2012 inventory using the Fourth Report Assessment GWPs. For example the previously estimated total GHG emissions for 2008 of 477.7 MMT of $CO_2e$ has been updated to 487.10 MMT of $CO_2e$.

**BAAQMD Regional GHG Inventories – San Francisco Bay Area Counties**

BAAQMD has completed several regional inventories, with the latest version, dated January 2015, providing information on 2011 emissions and earlier. In 2008, there were an estimated 86.8 million metric tons of GHG emissions associated with the nine Bay Area counties.[43] Like the statewide inventories, transportation is one of the largest sources of GHG emissions, about 40 percent. Industrial and commercial uses accounted for about one-third of GHG emissions (33.3 percent) followed by electricity generation (16.0 percent) and residential fuel uses (7.5 percent). Offroad vehicles and agricultural emissions made up the remaining three percent.

BAAQMD's inventories also provide a breakdown of GHG emissions by County in some years. In 2007 in Santa Clara County, approximately 42 percent of emissions were associated with transportation, 25 percent with industrial and commercial processes and operations, 19 percent with electricity use or generation, 8.5 percent with residential fuel use and the remainder from offroad equipment and agricultural operations.[44] Emissions from Santa Clara County in 2007 made up 19.6 percent of GHG emissions from the nine Bay Area counties. In 2007, over 25 percent of the Bay Area's population resided in Santa Clara County.

### 4.3.1.4 *City of San José 2008 Inventory – Baseline Emissions*

The City of San José estimated its communitywide GHG emissions for 2008 as a part of preparation of the 2040 General Plan PEIR and formulation of the City's Greenhouse Gas Reduction Strategy. Like statewide and regional inventories, transportation makes up the highest proportion of emissions. Locally, transportation is a higher percentage of total emissions than statewide or the overall Bay Area (46 percent compared to approximately 36 percent), although similar to Santa Clara County as a whole in BAAQMD inventories. Residential emissions are estimated to be slightly higher than commercial and industrial emissions, although emissions for a local power plant, the Metcalf Energy Center, are not included in the industrial sector. Emission for the power supplied from this facility to PG&E are included in the electric energy category. The estimated 2008 Community emissions in San José at the time of preparation of the 2040 General Plan PEIR are summarized in Table 4.4-3. If emissions from the Metcalf Energy Center are considered, transportation emissions would constitute approximately 39 percent of GHG emissions, closer to statewide and Bay Area rates.

In 2008, the population of San José was 985,307 and there were 369,450 jobs. The service population (population+jobs), therefore, was 1,354,757. The community GHG emissions (in metric tons (MT) $CO_2e$) per service population was 5.6.

[43] BAAQMD. 2015. *Bay Area Emissions Inventory Summary Report: Greenhouse Gases Base Year 2011*. (Table K). Available at: <http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/Emission%20Inventory/BY2011_GHGSummary.ashx?la=en>

[44] BAAQMD. 2010. *Source Inventory of Bay Area Greenhouse Gas Emissions.*

**Table 4.4-3**
**Estimated 2008 Community GHG Emissions for San José**

| Sector/Category | Annual Emissions MMT $CO_2e$ | Percent |
|---|---|---|
| Transportation[1] | 3.52 | 46.3 |
| Residential[2] | 1.47 | 19.3 |
| Commercial[2] | 1.33 | 17.5 |
| Industrial[2] | 1.03 | 13.5 |
| Waste[3] | 0.26 | 3.4 |
| Total | 7.61 | 100 |

[1] City-generated total of 2008 transportation emissions, based upon Vehicle Miles Traveled (VMT) from the Regional Transportation Modeling for the 2040 General Plan and estimated GHG emissions for on-road and off-road sources.
[2]Based upon energy use provided by PG&E for 2008.
[3]Based on City-generated waste stream and diversion, estimated using ICLEI Clean Air and Climate Protection Software.
Sources: City of San José Greenhouse Gas Reduction Strategy and Sierra Research. 2010. *Technical Report Greenhouse Gas Inventories.* December 2010. (refer to Appendix B and Appendix C of this Supplemental PEIR)

### 2008 Emissions Comparison

To provide context to the magnitude of baseline San José communitywide emissions and the relative contribution to global, national, statewide and regional emissions, comparisons of San José emissions to Bay Area, California, U.S. and global emissions in 2008 are shown in Table 4.4-4, Figure 4.4-3 and Figure 4.4-4.

**Table 4.4-4**
**Comparison of Estimated 2008 GHG Emissions**

| Geopolitical Area or Region | Annual Emissions MMT $CO_2e$ |
|---|---|
| World[1] | 44,372.4 |
| United States[1] | 6,288.5 |
| California[2] | 477.7 |
| San Francisco Bay Area[3] | 86.6 |
| San José[4] | 7.61 |

Sources for data in Table 4.4-4 and Figures 4.4-3 and 4.4-4:
[1]Climate Analysis Indicators Tool (CAIT) 2.0. ©2014. Washington, DC: World Resources Institute. Available online at: http://cait2.wri.org. Note: IPCC estimates for global emissions shown in Figure 4.4-1 of this Supplemental PEIR are higher; about 48,000 MMT.
[2] http://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2008/ghg_inventory_trends_00-08_2010-05-12.pdf A higher value is listed as 487.1 MMT in the California Greenhouse Gas Inventory for 2000-2012— by Category as Defined in the 2008 Scoping Plan <http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_00-12_2014-03-24.pdf>. This value reflects modifications to the global warming potential factors recommended by the IPCC. The 2008 Climate Change Scoping Plan lists 477.7 MMT.
[3] BAAQMD. 2015. *Bay Area Emissions Inventory Summary Report: Greenhouse Gases Base Year 2011*. (Table K).
[4]City of San José Greenhouse Gas Reduction Strategy and Sierra Research. 2010. *Technical Report Greenhouse Gas Inventories.* December 2010. (refer to Appendix B and Appendix C of this Supplemental PEIR)

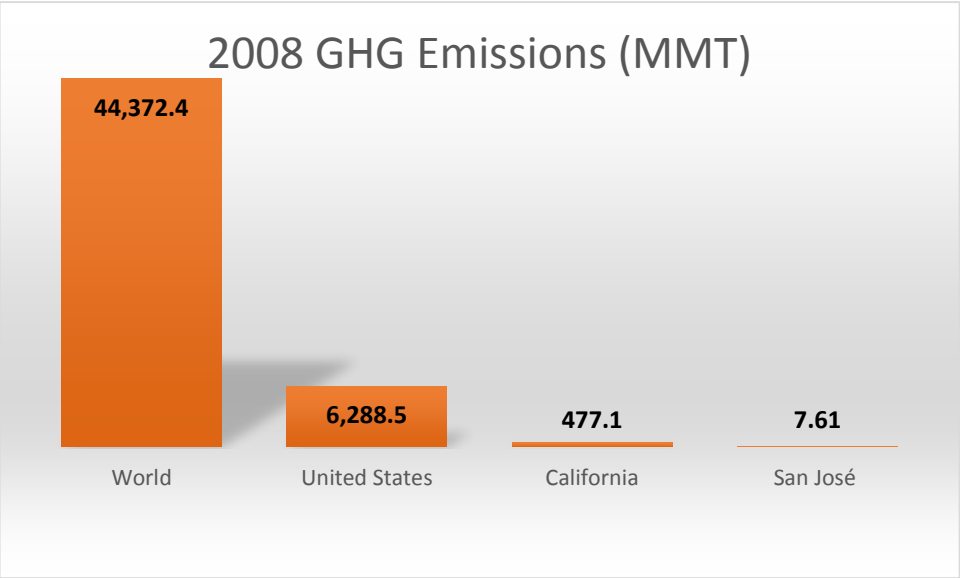



**Figure 4.4-3: Comparison of 2008 Global GHG Emissions**

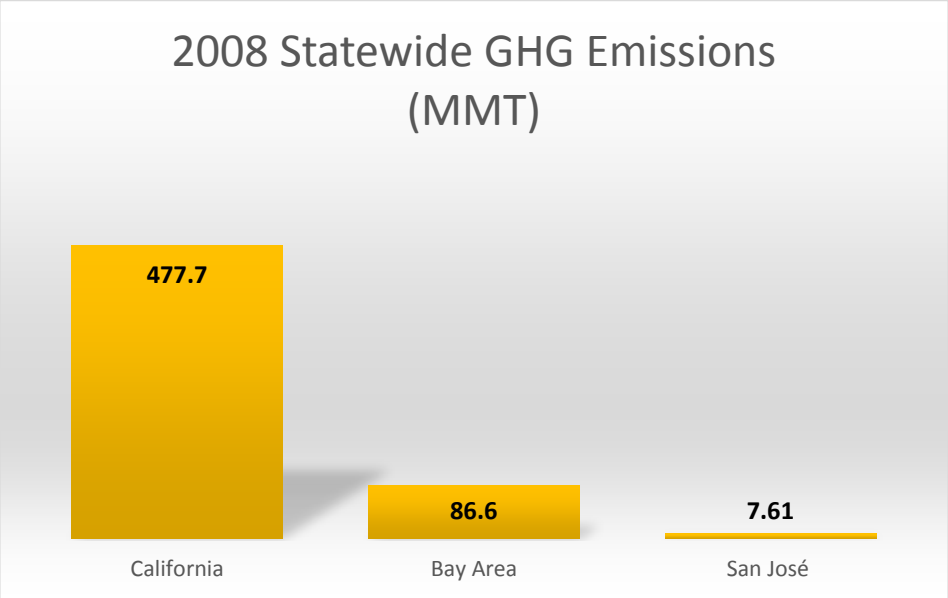



**Figure 4.4-4: Comparison of 2008 San José Emissions to State and Regional Emissions**

### 4.4.2 Considerations and Approach for Impact Analysis

Section 15064.4 of the CEQA Guidelines states that the determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency. Further, the lead agency should consider the following factors, among others, when addressing the significance of impacts from greenhouse gas emissions on the environment:

1. The extent to which the project may increase or reduce greenhouse gas emissions compared to the existing environmental setting;

2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;

3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change.[45] The analysis of GHG emissions impacts is, by its nature, a cumulative impact analysis, as no one project can influence climate by its own GHG emissions added to the environmental baseline. It is the combined contribution of all GHG sources globally that results in increased concentrations of GHGs that have climate change potential. Also, unlike other air pollutants, there is no local or regional existing environmental setting of GHG concentrations to use as a baseline for environmental effects, as the greenhouse effects of GHGs take place in the upper atmosphere and GHG emissions, regardless of where initially emitted, disperse and mix in the atmosphere globally.

That the GHG emissions of past, present and future projects are resulting in cumulative impacts globally is recognized in the CEQA statute and the CEQA Guidelines. As noted above, per CEQA Guidelines Section 15064.4 the question then becomes whether the emissions of a project (in this case implementation of a citywide General Plan) would make a cumulatively considerable contribution to the acknowledged cumulative effects of global greenhouse gas emissions.

#### What Constitutes a Cumulatively Considerable Contribution?

Section 15065(a)(3) of the CEQA Guidelines defines "cumulatively considerable" as 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. As noted in CEQA case law (*Communities for a Better Environment et al. v. California Resources Agency, 126*

[45] BAAQMD. 2010. *California Environmental Quality Act Air Quality Guidelines.* p. 2-1.

*Cal. Rptr. 2d. 441, Cal.App.3 Dist., 2002)*[46], it is not how the effect of the project at issue compares to the preexisting cumulative effect, but whether "any additional amount" of effect should be considered significant in the context of the existing cumulative effect. The CEQA Guidelines (Section 15065(h)(3)) also state that:

> *"A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program (including, but not limited to, water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, plans or regulations for the reduction of greenhouse gas emissions) that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency."*

Determining whether communitywide emissions from a large city such as San José, in the context of global emissions and existing and future cumulative conditions, would be cumulatively considerable is based upon research on climate change and legislation that has been undertaken over the last 20-30 years. One plan that has been adopted through a public review process and can support a determination of a project's contribution to a cumulative effect is the State of California Climate Change Scoping Plan addressing 2020 statewide emissions. The Scoping Plan considers global and statewide emissions as well as measures needed to be on track with stabilizing GHG concentrations in the atmosphere to limit anthropomorphic-related climate change. Consistency with the future greenhouse gas reductions and statewide (geographic) targets in this plan and associated regulations is a part of the basis for the Lead Agency's determination of whether implementation of the General Plan will make a cumulatively considerable contribution to global GHG emissions. While a long-term (i.e., beyond 2020) statewide target for greenhouse gas emissions has not been adopted by statute or regulation in a public process for the longer term implementation of the General Plan through 2035, the statewide target (i.e. maintaining a trajectory to achieve 2050 target of 80% reduction below 1990) in Executive Order S-3-05 is based upon international estimates by the IPCC of future reductions needed to limit climate change. Therefore, consistency with meeting this statewide target will be used to assess whether communitywide emissions in 2035 will be cumulatively considerable.

**Comparison to 2008 Baseline**

One of the issues noted in the stipulated judgment of dismissal regarding the assessment of GHG emissions impacts in the 2040 General Plan PEIR was the need for a comparison of General Plan emissions to the City's contribution to the 2008 baseline. The impacts discussion in Section 4.4.4 of this Supplemental PEIR includes disclosure of 2008 communitywide emissions, projected communitywide emissions in 2020 and 2035, and the net change in estimated San José community

[46] This 2002 decision that addresses what constitutes a cumulatively considerable contribution to a cumulative impact cited CEQA Guidelines Section 15064(i)(3), which was subsequently renumbered and amended to include a reference to plans to reduce greenhouse gas emissions.

emissions compared to the existing environmental baseline (i.e., the contribution of San José's community emissions to 2008 cumulative emissions) to provide this information clearly to the public and the decision makers.

While project impacts under CEQA are normally assessed by comparing to an existing conditions baseline [CEQA Guidelines Section 15125(a)] for a project site and its surroundings, GHG emissions due their global and cumulative effects warrant a different type of assessment. The normal approach for assessing project impacts is to establish an existing environmental baseline condition for a project site and its surroundings and identify the incremental change (i.e., additional vehicle trips, additional pollutant emissions, increased noise, etc.) associated with the project being studied, and measure that change against an established significance threshold. Typically, if the resulting environmental change, determined by comparing the 'project' condition against local or regional existing conditions, exceeds the applicable threshold, a significant impact is reported. In essence, under CEQA, a project's impacts are normally based on the magnitude of change from existing conditions. The scale at which GHG emissions impacts are evaluated is different, in part, due to their cumulative global sources and impact of emissions on the global atmosphere since pre-industrial times (see discussion under *What Constitutes a Cumulatively Considerable Contribution?*, above).

At the same time the City and the State as a whole anticipate substantial new population and employment growth, statewide aggregate emissions must be reduced substantially from existing levels. Therefore, maintaining current statewide GHG emissions levels (i.e., no net change from existing conditions) is insufficient to meet state mandates; rather the 'environment' in terms of atmospheric concentrations of GHG must improve compared to statewide baseline conditions. The City's existing GHG emissions and service population become relevant in identifying how 'carbon-efficient' the City is at the moment, and how much more carbon-efficient the City may need to become over time.

A particular percent reduction in total emissions compared to a baseline year has been used by some communities as both a target and a threshold in environmental review for their GHG Reduction Strategies. BAAQMD has noted that a 15 percent reduction in emissions by 2020 compared to a 2008 or similar baseline *could* be used as a target in qualified GHG Reduction Strategies. This is one of three recommended approaches for GHG Reduction Strategies (not Plan-level thresholds), based upon the approximate reductions needed statewide by 2020 per AB 32. The percent reduction approach may be most appropriate for a mature city expecting little or no growth. A mature city not expecting growth would have a stable service population, and so to achieve their share of GHG reduction targets, the communitywide emissions must be reduced overall to achieve state goals, since service population is not changing. In contrast, a growing city with an expanding service population may not be expected to reduce overall emissions, rather it must grow efficiently to allow for forecast statewide growth while still meeting GHG emission reduction targets.

In other words, a percent reduction target, and other possible "bright-line" comparisons, may have limited usefulness as a threshold for all General Plans and GHG Reduction Strategies, especially for communities expected to and willing to accept the growth in population and employment anticipated in California (by 2020 the statewide service population will be on the order of 64 million,). Application of a total emissions bright-line threshold to the projected emissions of an individual

community does not account for growth assumed in the Climate Change Scoping Plan that is distributed unevenly between local jurisdictions or reflect existing efficiencies in a community. Therefore, applying a bright-line threshold to determine whether an individual General Plan project would make a cumulatively considerable contribution to global GHG emissions would not represent a "fair-share" of statewide reduction targets and a numeric bright-line net emissions threshold for the geographic and jurisdictional area of San José based on total projected emissions is not used in this Supplemental PEIR.

Although a bright-line threshold for projected emissions is not used to assess whether the projects GHG emissions are cumulatively considerable, changes in total annual emissions in two horizon years (2020 and 2035) will be discussed and considered in the analysis below. The context of this discussion will be whether projected increases would be of a magnitude (or scale) to interfere with implementation of plans designed to reduce GHG emissions. If they are, this would constitute a cumulatively considerable GHG emissions impact.

### 4.4.3 Thresholds of Significance

Implementation of the 2040 General Plan would have a significant greenhouse gas emissions impact 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.

Applying the above general significance criteria for the first threshold quantitatively according to BAAQMD guidance and the CEQA Guidelines, implementation of the 2040 General Plan would result in a cumulatively considerable contribution of greenhouse gas emissions leading to global climate change if:

- **2020 Mid-Term.** The project would result in communitywide GHG emissions that would prevent the State of California from meeting its 2020 targets for reducing statewide GHG emissions.

- **2020 Mid-Term.** GHG emissions in 2020 would exceed 6.6 MT $CO_2e$/SP/yr (residents + employees), thereby exceeding the average carbon-efficiency necessary to achieve AB 32 target emission levels.

- **2035 Long-Term.** The project would result in communitywide GHG emissions that would prevent the State of California from maintaining a statewide trajectory to achieve Executive Order S-3-05 emissions levels in 2050.

- **2035 Long-Term.** GHG emissions in 2035 would exceed 3.04 MT $CO_2e$/SP/yr (residents + employees), thereby failing to maintain a trajectory to achieve Executive Order S-3-05 emissions levels in 2050.

The 2035 efficiency target above, reflects a straight line 40 percent emissions reduction compared to the projected citywide emissions (10.90 MT $CO_2e$) for San José in 2020. It was developed prior to issuance of Executive Order S-30-15 in April 2015, which calls for a statewide reduction target of 40 percent by 2030 (five years earlier) to keep on track with the more aggressive target of 80 percent reduction by 2050. The necessary information to estimate a second mid-term or interim efficiency target (e.g., statewide emissions, population and employment in 2030) is being developed by CARB. Therefore, the information to address this new state interim target is not available and development of an additional target will have to be completed at a later date once the Second Update to the Climate Change Scoping Plan is complete.

### 4.4.4 Greenhouse Gas Emissions Impacts

#### 4.4.4.1 *Overview*

This document is a supplement to the 2040 General Plan PEIR. In the following section, the extent to which implementation of the 2040 General Plan (including the City's GHG Reduction Strategy) would increase or reduce greenhouse gas emissions compared to the existing environmental setting at the time of preparation of the 2040 General Plan PEIR is described along with comparisons of projected emissions to the thresholds of significance that the City of San José, as the lead agency, has determined apply to the 2040 General Plan project. The extent to which the project complies with regulations and requirements in adopted statewide, regional and local plans and regulations are also described.

**2040 General Plan and GHG Reduction Strategy**

The City's Greenhouse Gas Reduction Strategy is embedded in its policies and programs that are designed to help the City sustain its natural resources, grow efficiently, and meet state legal requirements for greenhouse gas (GHG) emissions reduction. This Strategy is outlined in Appendix 8 of the proposed General Plan, which is also included in Appendix B of this Supplemental PEIR.

Although future growth within San José will be accommodated through infill development within the City's UGB, implementation of the proposed General Plan (including up to 120,000 new dwelling units and 470,000 new jobs over 25 years) will nonetheless result in new greenhouse gas emissions. Multiple aspects of the proposed General Plan have greenhouse gas implications, including land use, housing, transportation, water usage, solid waste generation and recycling, and reuse of historic buildings.

The BAAQMD Guidelines call for Greenhouse Gas Reduction Strategies to establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the General Plan/Greenhouse Gas Reduction Strategy would not be cumulatively considerable.

They recommend a target that meets or exceeds one of the following options, all based on AB 32 goals:

1. Reducing Greenhouse Gas emissions to 1990 levels by the year 2020;[47]

2. Reducing GHG emissions 15% below a baseline year (2008 or earlier) by 2020; or

3. Meeting the plan efficiency threshold of 6.6 metric tons of $CO_2$ equivalent per service population per year (MT $CO_2e$ / SP / year). Service population is defined as the number of residents plus the number of people working within San José.

   The basis for the 6.6 MT $CO_2e$ / SP / year threshold to determine whether a project's contribution is cumulatively considerable is the initial Scoping Plan; specifically the 2020 California emissions target divided by the projected California 2020 service population.

The City's Greenhouse Gas Reduction Strategy includes two targets; the 6.6 MT $CO_2e$ / SP / year for 2020 and a more stringent target of 3.04 MT $CO_2e$ / SP / year for 2035. These targets were identified based upon a consideration of the City's baseline emissions in 2008, the magnitude of projected emissions increases in 2020 and 2035 considering past, present and future anthropomorphic GHG emissions globally, nationally, statewide and regionally, and existing and planned growth patterns in San José and the region. Meeting these targets would reduce San José's communitywide emissions to a level that would not be cumulatively considerable to GHG emissions that result in global climate change. These targets, therefore are used as quantitative thresholds for evaluating the effects of implementation of the 2040 General Plan in 2020 and 2035.

#### 4.4.4.2 *Revised Projected Emissions Estimates for 2020 and 2035*

The 2040 General Plan PEIR included the results of a community-wide GHG emission inventory for 2008 (San Jose's contribution to existing conditions baseline) and projected emissions for 2020 and 2035 based on modeling tools and regulations in place at the time of preparation of the PEIR. A summary of the projected 2020 and 2035 emissions from the 2040 General Plan PEIR by sector are shown in Table 4.4-5 and Table 4.4-6.

As a part of the analysis for the Greenhouse Gas Emissions impact assessment in this Supplemental PEIR, the City's consultant AECOM prepared estimates of additional emissions reduction potential from implementation of statewide actions and the City of San José's Greenhouse Gas Reduction Strategy. A copy of the memo describing these estimates is provided in Appendix D.

The State of California has developed various policies, programs and regulations aimed at achieving the State's emissions reduction goals under AB 32. Many of these statewide actions will result in emissions reductions at the local level. Pavley I (California Clean Car Standards) and the Low Carbon Fuel Standard were considered when the original emissions estimates were made.

[47] San José's 1990 emissions are not known nor easily estimated.

**Table 4.4-5**
**2020 Community GHG Emissions for San José - 2040 General Plan PEIR Estimates**

| Sector/Category | Annual Emissions MMT $CO_2e$ | Percent |
|---|---|---|
| Transportation[1] | 4.7 | 45.6 |
| Industrial/Commercial | 2.5 | 24.3 |
| Residential | 1.5 | 14.6 |
| Leakage[2] | 0.7 | 6.8 |
| Waste[3] | 0.5 | 4.8 |
| Municipal & Institutional | 0.4 | 3.9 |
| Total | 10.3 | 100 |

[1] City-generated total transportation emissions, based upon Vehicle Miles Traveled (VMT) from the Regional Transportation Modeling for the 2040 General Plan and estimated GHG emissions for on-road and off-road sources.
[2] Leakage of greenhouse gases (e.g., natural gas, perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs)
Sources: City of San José Greenhouse Gas Reduction Strategy and Sierra Research. 2010. *Technical Report Greenhouse Gas Inventories.* December 2010. (refer to Appendix B and Appendix C of this Supplemental PEIR)

**Table 4.4-6**
**2035 Community GHG Emissions for San José - 2040 General Plan PEIR Estimates**

| Sector/Category | Annual Emissions MMT $CO_2e$ | Percent |
|---|---|---|
| Transportation[1] | 6.0 | 41.4 |
| Commercial & Industrial | 4.1 | 28.3 |
| Residential | 1.7 | 8.5 |
| Leakage[2] | 1.0 | 6.9 |
| Municipal & Institutional | 0.9 | 6.2 |
| Waste | 0.7 | 4.8 |
| Total | 14.5 | 100 |

[1] City-generated total transportation emissions, based upon Vehicle Miles Traveled (VMT) from the Regional Transportation Modeling for the 2040 General Plan and estimated GHG emissions for on-road and off-road sources.
[2] Leakage of greenhouse gases (e.g., natural gas, perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs)
Sources: City of San José Greenhouse Gas Reduction Strategy and Sierra Research. 2010. *Technical Report Greenhouse Gas Inventories.* December 2010. (refer to Appendix B and Appendix C of this Supplemental PEIR)

Additional statewide actions that will effect communitywide emissions that now can be quantified or updated include:

- Renewable Portfolio Standard for utilities
- California lighting efficiency standards (AB 1109)
- Low-Emission Vehicle III standards (Part of the Advanced Clean Cars Program)
- Vehicle Efficiency Regulations (Heavy-Duty Aerodynamics)

On the local level, the City's Greenhouse Gas Reduction Strategy and the 2040 General Plan PEIR included GHG reduction estimates for several strategies with a 2035 implementation timeframe. These measures were reviewed and revised and then combined with the additional statewide reductions to provide adjusted and updated estimates of projected communitywide emissions in 2020 and 2035 with implementation of the 2040 General Plan. The Greenhouse Gas Reduction Strategy measures were also reviewed to avoid double-counting emissions reduction potential. Where estimates for various strategies could not be verified, they were not included in the emission reduction totals. A summary of additional reductions for 2020 and 2035 is provided in Table 4.4-7.

Some of the reduction strategies listed in the Greenhouse Gas Reduction Strategy remain unquantified, but may be in the future as more information is available or verifiable methods identified for making accurate estimates of reductions for strategies such as additional community energy programs, bike parking and community gardens.

**Table 4.4-7**
**Additional Reduction Estimates Summary**
**Community GHG Emissions for San José**

| Reduction Measure | 2020 Emissions Reductions MT $CO_2e$/year | 2035 Emissions Reductions MT $CO_2e$/year |
|---|---|---|
| **Statewide Measures** | | |
| Renewable Portfolio Standard | 1,372,558 | 2,168,283[1] |
| Lighting Efficiency (AB 1109) | 32,249 | 38,746 |
| Low-Emission Vehicle III | 87,427 | 111,666 |
| Vehicle Efficiency Regulations | 9,317 | 15,483 |
| ***Subtotal – Statewide Measures*** | ***1,501,551*** | ***2,334,178*** |
| **City of San José Greenhouse Gas Reduction Strategy Measures** | | |
| BEE-5: On-site Renewable Energy Systems | 10,267 | 18,480 |
| LUT-6: Interconnected Bike Trails | 53 | 140 |
| LUT-7: Alternative Fuel Fleet | 2,222 | 5,000 |
| RWR-1: Reclaimed Water | 1,714 | 4,286 |
| RWR-Q: Zero Waste | 88,889 | 200,000 |
| ***Subtotal – Local*** | ***103,145*** | ***227,906*** |
| **Total** | **1,604,696** | **2,562,084** |

[1]Although it is conceivable that the Renewable Portfolio standard could increase after 2020 (i.e., the RPS-mandated 33 percent renewable electricity generation requirements would increase), this estimate only considers the existing requirements and assumes no additional increase from 2020 to 2035.

Source: AECOM. 2015. *San José Emissions Memo.* (refer to Appendix D of this Supplemental PEIR)

**Communitywide Emissions Summary**

Adjusted estimates of communitywide emissions in 2020 and 2035 are provided in Table 4.4-8.

**Table 4.4-8**
**Communitywide Total Emissions and Efficiency Thresholds**

| | Units | 2008 | 2020 | 2035 |
|---|---|---|---|---|
| **Emissions** | | | | |
| 2040 General Plan PEIR - Emissions Estimate and Projections | MT $CO_2e$/year | **7,610,000** | 10,300,00 | 14,500,000 |
| Adjustment for Additional Estimated Reductions[1] | MT $CO_2e$/year | -- | 1,604,696 | 2,562,084 |
| **Revised Emissions Projections** | MT $CO_2e$/year | -- | **8,695,304** | **11,937,916** |
| **Net Change in Annual Emissions Compared to 2008** | MT $CO_2e$/year | -- | **1,085,304** | **4,327,916** |
| **Efficiency Thresholds Comparison** | | | | |
| Service Population (SP) | Population + Jobs | 1,354,757 | 1,650,942 | 2,153,261 |
| Emissions/SP | MT $CO_2e$/SP/year | **5.6** | **5.3** | **5.5** |
| Emissions Target and Threshold | MT $CO_2e$/SP/year | -- | 6.6 | 3.04 |
| Cumulatively Considerable Contribution to a Significant Cumulative Impact? | Yes/No | -- | No | **Yes** |

[1]Source: AECOM. 2015. *San José Emissions Memo* (refer to Appendix D of this Supplemental PEIR).

### 4.4.4.3 *Impacts of Communitywide GHG Emissions – 2020*

**Overview**

The projected San José communitywide emissions in 2020 are 8,695,304 MT $CO_2e$ (refer to Table 4.4-8). This represents an increase in annual San José emissions communitywide of 1,085,304 MT $CO_2e$ (14.3 percent, compared to 21.8% increase in service population) compared to 2008 and a five percent reduction in emissions per service population.

As previously discussed in *Section 4.4.1.1 Climate Science Overview,* given the scale of the global environment and global GHG emissions since the pre-industrial period (which are in the tens billions of metric tons of $CO_2e$ annually), no one project (including implementation of the City's General Plan over an approximately 25 year period) can influence climate to the extent it can be traced as a cause and effect of the individual project, especially to the local or regional environment in the vicinity of the project. Global emissions, annually and cumulatively, would not be substantially different considering the GHG emissions (approximately 1.085 MMT) from San José due to implementation of the 2040 General Plan from 2011 to 2020.

Therefore, the significance of San José's cumulative contribution to global greenhouse gas emissions from implementation of the 2040 General Plan in the mid-term year of 2020 will be assessed based on whether the project emissions exceed the efficiency criteria developed by BAAQMD based upon estimates in the AB 32 Scoping Plan. As noted in *Section 4.4.3. Thresholds of Significance*, implementation of the 2040 General Plan would result in a cumulatively considerable contribution of greenhouse gases leading to global climate change if:

- **2020 Mid-Term.** The project would result in communitywide GHG emissions that would prevent the State of California from meeting its 2020 targets for reducing statewide GHG emissions.

- **2020 Mid-Term.** GHG emissions in 2020 would exceed 6.6 MT CO2e/SP/yr (residents + employees), thereby exceeding the average carbon-efficiency necessary to achieve AB 32 target emission levels.

**Total 2020 Emissions and Comparison to 2008 Baseline**

While emissions from a city the size of San José may be relatively small compared to cumulative emissions globally, it is recognized that efforts are needed at the local level all over the world to reduce community contributions to GHG emissions and global climate effects. The State of California has adopted a Climate Change Scoping Plan that considers that California's population and employment will grow at the same time emissions statewide are targeted to be reduced. It identifies measures to reduce greenhouse gas emissions from the Transportation, Energy, Agriculture, Water, Waste and other sectors and these reductions, as well as population and employment growth, would not be spread evenly across the state. For example, reductions from particular industries, such as refineries, would occur in individual communities, and reductions in indirect emissions from power generation would be different for communities served by different utilities. For communities that experience and plan for substantial new growth, it is not unexpected that mass emissions within a particular jurisdiction could go up even as the State implements measures, such as the Renewables Portfolio Standards and Clean Car Regulations, that will reduce emissions for the operation of individual buildings and vehicles as well as statewide emissions from these sources. As noted above, California's efforts to reduce statewide emissions overtime consider that the State and individual cities and regions will grow.

The magnitude of the increase in annual emissions of about one million metric tons (MMT) $CO_2e$ from San José (resulting in emissions of about 8.66 MMT from San Jose contributing to the total statewide 2020 target of 430 MMT $CO_2e$[48]) are not anticipated to interfere with the State of California meeting its overall 2020 targets for GHG emissions as long as San José grows in an efficient manner, within the assumptions for statewide growth.

**Impact GHG-2:** The City's projected 2020 GHG emissions, in total and compared to emissions in 2008, would not prevent the State of California from meeting its 2020 targets for reducing statewide GHG emissions, and therefore, would not represent a cumulatively considerable contribution to global climate change. **(Less Than Significant Cumulative Impact)**

**Comparison to 2020 Mid-Term Efficiency Threshold**

The projected communitywide emissions in 2020 are 8,695,304 MT $CO_2e$ (refer to Table 4.4-8). Dividing the total emissions by the City's 2020 service population yields an average carbon-efficiency of 5.3 MT $CO_2e$/SP/yr, or roughly 19 percent below the efficiency standard of 6.6 MT $CO_2e$/SP/yr necessary to achieve statewide AB 32 goals and five percent below the City's carbon efficiency of 5.6 MT $CO_2e$/SP/yr in 2008 (refer to Table 4.4-8). Therefore, implementation of the 2040 General Plan would not exceed the criteria for a making a cumulatively considerable contribution to cumulative greenhouse gas emissions impacts and global climate change.

**Impact GHG-2:** The City's projected 2020 GHG emissions will be below the average carbon-efficiency standard necessary to meet statewide 2020 goals as established by AB 32. Implementation of the proposed General Plan through 2020 would not constitute a cumulatively considerable contribution to global climate change. **(Less Than Significant Cumulative Impact**)

#### 4.4.4.4 *Impacts of Communitywide GHG Emissions - 2035*

**Overview**

The projected communitywide emissions in 2035 are 11,937,916 MT $CO_2e$ (refer to Table 4.4-8). This represents an increase in annual emissions communitywide of 4,327,916 MT $CO_2e$ (56.9 percent, while the City's service population increases by 59%) compared to 2008 and a two percent reduction in emissions per service population. In other words, the total emissions will increase while the projected emissions per service population would be less than in 2008. The projected emissions per service population would, however, be higher than that projected in the mid-term for 2020 (5.5 vs. 5.3 MT $CO_2e$/SP/yr).

[48] The initial Scoping Plan lists a 2020 GHG annual emissions limit of 427 $MMTCO_2e$. The First Update to the Climate Change Scoping Plan adjusts the 2020 statewide limit to 430 $MMTCO_2e$ based upon updated global warming potentials (GWPs) of greenhouse gases in the IPCC's Fourth Assessment Report. The emissions limit remains on the order of 427-430 million metric tons.

As previously discussed in *Section 4.4.1.1 Climate Science Overview,* given the scale of the global environment and global GHG emissions since the pre-industrial period (which are in the billions of metric tons of $CO_2e$), no one project (including implementation of the City's General Plan over an approximately 25 year period) can influence climate to the extent it can be traced as a cause and effect of the individual project, especially on an individual or regional environment in the vicinity of the project. Global emissions, annually and cumulatively, would not be noticeably different considering the GHG emissions from San José due to implementation of the 2040 General Plan from 2011 to 2035.

Therefore, the significance of San José's cumulative contribution to global greenhouse gas emissions from implementation of the 2040 General Plan in the year 2035 will be assessed based on whether the project emissions exceed the efficiency criteria to maintain a trajectory to achieve Executive Order S-3-05 emission targets in 2050 (i.e., a 80 percent reduction compared to 1990 levels). As noted in *Section 4.4.3 Thresholds of Significance*, implementation of the 2040 General Plan would result in a cumulatively considerable contribution of greenhouse gases leading to global climate change in 2035 if:

- **2035 Long-Term.** The project would result in communitywide GHG emissions that would prevent the State of California from maintaining a statewide trajectory to achieve Executive Order S-3-05 emissions levels in 2050.

- **2035 Long-Term**. GHG emissions in 2035 would exceed 3.04 MT $CO_2e$/SP/yr (residents + employees), thereby failing to maintain a trajectory to achieve Executive Order S-3-05 emissions levels in 2050.

**Total 2035 Emissions and Comparison to 2008 Baseline**

As discussed previously for the mid-term 2020 year, while emissions from a city the size of San José may be relatively small compared to cumulative emissions globally, it is recognized that efforts are needed at the local level all over the world to reduce community contributions to GHG emissions and global climate effects.

Using a straight-line projection, the estimated total statewide GHG emissions target for 2035 necessary to be on track to achieve statewide goals for emission reductions by 2050 would be about 40 percent below the statewide 2020 target (about 300 MMT $CO_2e$ in 2035). The magnitude of the increase in annual emissions (from 7.61 to 11.9 million metric tons (MMT), about an additional 4.3 MMT $CO_2e$) from San José in 2035 compared to the 2008 baseline, as well as the total communitywide 2035 emissions of about 11.9 MMT from San José, could interfere with the State of California's trajectory toward meeting its overall 2050 targets for GHG emissions based upon a consideration of the City's fair-share of GHG reductions for its projected population and employment.

**Impact GHG-3:** The City's projected 2035 GHG emissions, in total and compared to emissions in 2008, could prevent the State of California from maintaining a statewide trajectory to achieve Executive Order S-3-05 emissions levels in 2050, and therefore, would represent a cumulatively considerable contribution to global climate change. **(Significant Cumulative Impact)**

**Comparison to 2035 Long-Term Efficiency Thresholds**

Dividing the total projected 2035 emissions of 11,937,916 MT $CO_2e$ by the City's 2035 service population yields an average carbon-efficiency of 5.5 MT $CO_2e$/SP/yr, or roughly 81 percent above the efficiency standard of 3.04 MT $CO_2e$/SP/yr necessary to be on track to achieve statewide goals for emission reductions by 2050 (refer to Table 4.4-8). Therefore, implementation of the 2040 General Plan would exceed the efficiency criteria for a making a cumulatively considerable contribution to cumulative greenhouse gas emissions impacts and global climate change in 2035.

As discussed in the Transportation section of the 2040 General Plan PEIR, future travel modeling results indicate that the General Plan's land use mix and distribution, under a "business as usual" scenario, are not more 'carbon-efficient' than existing conditions in that modeled vehicle trips and VMT per service population would increase in 2020 and 2035 compared to the City's existing conditions. In 2020 the effect of the increases in VMT on GHG emissions are offset somewhat by statewide regulations to reduce GHG emissions from vehicles (e.g., Clean Air Standards, Low Carbon Standards, etc.).

As discussed in *Section 3.4 Air Quality* of the 2040 General Plan PEIR, VMT per capita is projected to increase for a number of reasons. The proposed General Plan puts an emphasis on job growth to improve the City's jobs/housing balance for fiscal stability reasons, which accounts for some of the increase in VMT that is greater than population growth alone. Because ultimately the planned population and employed residents would not provide a sufficiently sized labor force to satisfy the growth in jobs, workers would need to travel from residences in other cities and counties. The imported workers would travel much longer distances than those workers who currently reside in the City. The City used a conservative technical approach for the transportation demand model runs used to estimate VMT. To maintain the ABAG Projections regional totals (i.e., controls) in the model analysis, workers that could not be accommodated by housing in San José were assumed to reside outside of Santa Clara County.[49] Using this approach, imported workers would travel longer distances than if they were assumed to live in neighboring cities within Santa Clara County. Longer projected trip lengths contribute to the projected increase in VMT per capita.

Countering this modeled increase in VMT per capita and per service population is the planned compact development within the City's UGB (as shown on the City's proposed Land Use and Transportation Diagram) as well as a range of new and updated General Plan policies that provide for expanded use of transportation options, such as public transit, bicycling, and walking. Some, but not all, of these measures are estimated as part of projected emissions reductions envisioned as a part of

[49] If neighboring Santa Clara County jurisdictions would take more population growth, San José's VMT would go down per service population (e.g., new employees could live closer to their jobs, reducing VMT for commuting). The City of San José has helped reduce regional VMT in the past by accommodating substantial housing growth.

the implementation of the 2040 General Plan. Reductions in VMT and associated reductions in GHG emissions are not anticipated to reduce emissions to the 3.04 MT $CO_2e$/SP/yr target, however.

**Impact GHG-4:** The City's projected 2035 GHG emissions, without further reductions, would constitute a cumulatively considerable contribution to global climate change by exceeding the average carbon-efficiency standard necessary to maintain a trajectory to meet statewide 2050 goals as established by Executive Order S-3-05. **(Significant Cumulative Impact)**

#### 4.4.4.5 *Consistency with Plans, Programs, and Regulations*

**Criteria for Evaluating Consistency with Plans to Reduce Greenhouse Gas Emissions**

Several plans have been adopted on a statewide or regional level to reduce greenhouse gas emissions and are applicable to implementation of the 2040 General Plan. These plans include the statewide California Climate Change Scoping Plan and two regional plans; Plan Bay Area, which is part of implementation of SB 375, and BAAQMD's 2010 Clean Air Plan. The conformance of the 2040 General Plan and Greenhouse Gas Reduction Strategy with applicable strategies and measures and overall consistency with the purpose and intent of these plans has been evaluated on a qualitative basis through a comparison of General Plan policies and the land use and transportation diagram with identified measures, policies, or other requirements. Consistency with regulations designed to support these plans is also described below.

**State of California Climate Change Scoping Measures**

Key elements for reducing greenhouse gas emissions in California to 1990 levels by 2020 identified in the State's Climate Change Scoping Plan include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related greenhouse gas emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

Role of Local Governments

While the Scoping Plan focuses on measures and regulations undertaken at a statewide level, implementation of measures at the local level are also important. Appendix C of the Scoping Plan addresses the role of local governments and recommends that local agencies use a collaborative, comprehensive approach to reducing GHG emissions and addressing climate change within their own communities. The Scoping Plan notes that key elements of any comprehensive plan addressing greenhouse gas emissions should include (1) development of municipal and community-level GHG emissions inventories, (2) adoption of local emissions reductions mechanisms and strategies that can be implemented through local plans, programs, codes and ordinances, (3) establishment of emission reduction goals and 4) development of an emissions reporting mechanism to track progress toward those goals. These elements have been incorporated in the 2040 General Plan and Greenhouse Gas Reduction Strategy.

Potential government actions for communities such as San José are related to the following types of Scoping Plan Measures: Energy Efficiency, Green Building, Recycling and Waste, High GWP Gases (maintenance of municipal vehicles and equipment), Sustainable Forests, Water, Transportation and Vehicle Efficiency (maintenance of municipal vehicles).

Table 4.4-9 identifies measures in the California Scoping Plan to reduce greenhouse gases and the associated proposed General Plan policies that correspond or fit within each measure category. The table also identifies, where possible, the percentage of sector reductions associated with the policy in accordance with the values found in the BAAQMD CEQA Guidelines mitigation measures list. Several measures identified in the Climate Change Scoping Plan that will be regulated at a statewide rather than a local level, such as the proposed California Cap-and-Trade Program, the statewide renewable energy mix, and California Light-Duty Vehicle Greenhouse Gas Standards, are not discussed further in this section because they are outside the City's control and have previously been addressed in *Section 4.4.1.2 Regulatory Framework* and *Section 4.4.4.2 Revised Projected Emissions Estimates for 2020 and 2035*. The proposed General Plan includes a range of policies and actions designed to improve sustainability of the City and reduce per capita and per service population emissions of GHGs. Proposed policies and programs that address energy efficiency, use of alternative modes of travel, reducing VMT, waste reduction, and water use efficiency are consistent with elements of the Climate Change Scoping Plan.

On May 22, 2014, CARB adopted a first update to the Scoping Plan document. Consistency with the concepts for local and regional government efforts in the updated document is addressed after Table 4.4-9.

**Table 4.4-9**
**Comparison of Climate Change Scoping Plan Measures to 2040 General Plan Policies**

| California Scoping Plan Measure(s) | Envision San José 2040 General Plan Policy | BAAQMD Sector/*CAPCOA* Reduction Percentages[1] |
|---|---|---|
| **1. California Cap and Trade Program** | Not applicable (established and regulated at the state-level) although could be used in the future to off-set impacts of individual projects. | -- |
| **2. California Light-Duty Vehicle Greenhouse Gas Standards** | Not applicable (established and regulated at the state-level) | -- |
| **3. Energy Efficiency**<br>Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities). | **MS-1.1:** Continue to demonstrate leadership in the development and implementation of green building policies and practices. Ensure that all projects are consistent with and/or exceed the City's Green Building Ordinance and City Council Policies as well as State or regional policies which require that projects incorporate various green building principles into their design and construction. | |
| | **MS-1.2:** Continually increase the number and proportion of buildings within San José that make use of green building practices by incorporating those practices into both new construction and retrofit of existing structures. | |
| | **MS-2.3:** Encourage consideration of solar orientation, including building placement, landscaping, design and construction techniques for new construction to minimize energy consumption. | |
| | **MS-2.7:** Encourage the installation of solar panels or other clean energy power generation sources over parking areas. | |
| | **MS-2.11:** Require new development to incorporate green building practices, including those required by the Green Building Ordinance. Specifically, target reduced energy use through construction techniques (e.g., design of building envelopes and systems to maximize energy performance), through architectural design (e.g. design to maximize cross ventilation and interior daylight) and through site design techniques (e.g. orienting buildings on sites to maximize the effectiveness of passive solar design). | |
| | **MS-14.3:** Consistent with the California Public Utilities Commission's California Long Term Energy Efficiency Strategic Plan, as revised, and when technological advances make it feasible, require all new residential and commercial construction to be designed for zero net energy use. | 0-100% |
| | **MS-14.4:** Implement the City's Green Building Policies (see Green Building Section) so that new construction and rehabilitation of existing buildings fully implements industry best practices, including the use of optimized energy systems, selection of materials and resources, water efficiency, sustainable site selection, passive solar | |

**Table 4.4-9**
**Comparison of Climate Change Scoping Plan Measures to 2040 General Plan Policies**

| California Scoping Plan Measure(s) | Envision San José 2040 General Plan Policy | BAAQMD Sector/*CAPCOA* Reduction Percentages[1] |
|---|---|---|
| | building design, and planting of trees and other landscape materials to reduce energy consumption. | |
| | **MS-14.5:** Consistent with State and Federal policies and best practices, require energy efficiency audits and retrofits prior to or at the same time as consideration of solar electric improvements. | 12% |
| | **MS-15.3:** Facilitate the installation of at least 100,000 solar roofs in San José by 2022 and at least 200,000 solar roofs by 2040. | Up to 100% |
| | **MS-16.2:** Promote neighborhood-based distributed clean/renewable energy generation to improve local energy security and to reduce the amount of energy wasted in transmitting electricity over long distances. | |
| | **MS-16.5:** Establish minimum requirements for energy efficiency measures and onsite renewable energy generation capacity on all new housing developments. | |
| | **IN-4.5:** Develop projects, policies and programs to convert wastewater treatment streams into energy so that the wastewater treatment facilities can operate as fully energy self-efficient. | |
| **4. Renewables Portfolio Standard** | While the City is not responsible for meeting the Renewables Portfolio Standard for energy suppliers, the General Plan does include policies and goals (IP-3.6) that encourage and facilitate the installation of renewable energy sources within the City. | |
| **5. Low Carbon Fuel Standard** | Not applicable (established and regulated at the state-level) | |
| **6. Regional Transportation-Related Greenhouse Gas Targets** | Targets for the Bay Area have been set by the California Air Resources Board. Compact development and transportation policies designed to reduce passenger vehicle miles traveled (e.g., T ) are consistent with regional efforts (see policies listed under Local Government below) | |
| **7. Vehicle Efficiency Measures** (e.g., tire efficiency measures) | Not applicable (established and regulated at the state-level) | |
| **8. Goods Movement** Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities. | The General Plan includes policies and actions on Goods Movement within the City (TR-6.1 through TR-6.8) that are designed, in part, to improve the efficiency of goods movement. | |

**Table 4.4-9**
**Comparison of Climate Change Scoping Plan Measures to 2040 General Plan Policies**

| California Scoping Plan Measure(s) | Envision San José 2040 General Plan Policy | BAAQMD Sector/*CAPCOA* Reduction Percentages[1] |
|---|---|---|
| **9. Million Solar Roofs Program**<br>Install 3,000 MW of solar-electric capacity under California's existing solar programs. | The General Plan and the City's Green Vision include goals and policies that support the installation of at least 100,000 solar roofs in San José by 2022 and at least 200,000 solar roofs by 2040. (Renewable Energy Policy MS-15.3) | |
| **10. Medium/Heavy-Duty Vehicles**<br>Adopt medium and heavy-duty vehicle efficiency measures. | Not applicable (established and regulated at the state-level) | |
| **11. Industrial Emissions**<br>Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries. | Large industrial sources of GHG, such as refineries and power plants, are identified in the Scoping Plan and regulated at a state level. In the future, GHG emissions from these large users may be off-set through modifications to facilities and credits through a cap-and-trade program. An energy efficiency action in the General Plan calls for the City to Develop policies which promote energy reduction for energy-intensive industries (Action MS-2.8). This could include industrial uses, such as data centers, that are not regulated under current California Air Resources Board regulations. | |
| **12. High Speed Rail**<br>Support implementation of a high speed rail system. | **TR-4.2**: Work collaboratively with the California High-Speed Rail Authority to bring high speed rail to San José in a timely manner. | |
| | **TR-4.3**: Support the development of amenities and land use and development types and intensities that contribute to increased ridership on the potential high-speed rail system, and also provide positive benefits to the community. | |
| | **TR-4.4**: Work cooperatively with the California High-Speed Rail Authority to ensure that rail corridors within the City are planned and constructed in a manner that enhances the character of the surrounding neighborhoods. | |
| **13. Green Building Strategy**<br>Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. | A number of policies in the proposed General Plan (including address application of the City's Green Building Policies and programs to future development. These policies are listed under Local Government, below. | |

**Table 4.4-9**
**Comparison of Climate Change Scoping Plan Measures to 2040 General Plan Policies**

| California Scoping Plan Measure(s) | Envision San José 2040 General Plan Policy | BAAQMD Sector/*CAPCOA* Reduction Percentages[1] |
|---|---|---|
| **14. High Global Warming Potential Gases**<br>Adopt measures to reduce high global warming potential gases. | Not applicable (regulated at the state-level) | |
| **15. Recycling and Waste**<br>Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste. | **MS-6.2:** Implement mixed-waste recycling of garbage and recycling processing residue to ensure that all recyclable and compostable materials are diverted from landfills.<br>**MS-6.5**: Reduce the amount of waste disposed in landfills through waste prevention, reuse, and recycling of materials at venues, facilities, and special events.<br>**Goal MS-5:** Divert 100% of waste from landfills by 2022 and maintain 100% diversion through 2040**.** | |
| **16. Sustainable Forests**<br>Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation. | Not fully applicable, applies to forests outside urban areas. | |
| **17. Water**<br>Continue efficiency programs and use cleaner energy sources to move and treat water. | **MS-17.2:** Ensure that development within San José is planned and built in a manner consistent with sustainable use of current and future water supplies by encouraging sustainable development practices, including low-impact development, water-efficient development and green building techniques. Support the location of new development within the vicinity of the recycled water system and promote expansion of the SBWR system to areas planned for new development. Residential development outside of the Urban Service Area will only be approved at minimal levels and only allowed to use non-recycled water at urban intensities. For residential development outside of the Urban Service Area, restrict water usage to well water, rainwater collection or other similar sustainable practice. Non-residential development may use the same sources and potentially make use of recycled water, provided that its use will not result in conflicts with other General Plan policies, including geologic or habitat impacts. To maximize the efficient and environmentally beneficial use of water, outside of the Urban Service Area, limit water consumption for new development so that it does not diminish the water supply available for projected development within San Jose's urbanized areas. | |
| | **MS-18.4:** Retrofit existing development to improve water conservation. | 12% |
| | **MS-18.5:** Reduce residential per capita water consumption by 25% by 2040. | |

**Table 4.4-9**
**Comparison of Climate Change Scoping Plan Measures to 2040 General Plan Policies**

| California Scoping Plan Measure(s) | Envision San José 2040 General Plan Policy | BAAQMD Sector/*CAPCOA* Reduction Percentages[1] |
|---|---|---|
| | **MS-18.6:** Achieve by 2040, 50 Million gallons per day of water conservation savings in San José, by reducing water use and increasing water use efficiency. | |
| | **MS-19.3:** Expand the use of recycled water to benefit the community and the environment | |
| | **MS-19.4:** Require the use of recycled water wherever feasible and cost-effective to serve existing and new development. | Up to 40% (Northern California outdoor water use) |
| | **MS-21.3:** Ensure that San José's Community Forest is comprised of species that have low water requirements and are well adapted to its Mediterranean climate. Select and plant diverse species to prevent monocultures that are vulnerable to pest invasions. Furthermore, consider the appropriate placement of tree species and their lifespan to ensure the perpetuation of the Community Forest. | |
| | **IN-4.6:** Continue to encourage water conservation and other programs which result in reduced demand for wastewater treatment capacity. | |
| **18. Agriculture**<br>In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020. | Not applicable to the urban uses in San José. | |

**Other: Local Government**

The Scoping Plan recognizes that local governments are essential partners in achieving California's goals to reduce greenhouse gas emissions. Local governments have broad influence and authority over activities that contribute to significant direct and indirect greenhouse gas emissions through planning and permitting processes, local ordinances, outreach and education efforts, and municipal operations. Many of the CARB proposed measures to reduce greenhouse gas emissions rely on local government actions. The following policies address measures related to ENERGY EFFICIENCY, GREEN BUILDING, RECYCLING AND WASTE, SUSTAINABLE FORESTS, WATER, and TRANSPORTATION, as noted.

| | |
|---|---|
| **MS-10.12:** Increase the City's alternative fuel vehicle fleet with the co-benefit of reducing local air emissions. Implement the City's Environmentally Preferable Procurement Policy (Council Policy 4-6) and Pollution Prevention Policy (Council Policy 4-5) in a manner that reduces air emissions from municipal operations. Support policies that reduce vehicle use by City employees. [TRANSPORTATION] | 0.5-12.7% VMT |
| **MS-14.6:** Replace 100% of the City's traffic signals and streetlights with smart, zero emission lighting by 2022. [ENERGY EFFICIENCY] | 90% Traffic Light Energy Use |

**Table 4.4-9**
**Comparison of Climate Change Scoping Plan Measures to 2040 General Plan Policies**

| California Scoping Plan Measure(s) | Envision San José 2040 General Plan Policy | BAAQMD Sector/*CAPCOA* Reduction Percentages[1] |
|---|---|---|
| **MS-14.7:** Measure annually the shares of the City's total Carbon Footprint resulting from energy use in the built environment, transportation, and waste management. [ENERGY EFFICIENCY, RECYCLING AND WASTE, TRANSPORTATION] | | |
| **MS-15.2:** Lead globally in adopting technologies that transform solid waste and biosolids (i.e., the solids that remain after wastewater treatment) into useable energy. [RECYCLING AND WASTE] | | |
| **MS-15.6:** Utilize municipal facilities to showcase the application of outstanding, innovative, and locally developed energy efficiency and renewable energy technologies and practices, to demonstrate the effectiveness of these technologies and to highlight the City's energy leadership. [ENERGY EFFICIENCY] | | |
| **MS-15.9:** Train City code enforcement and development review staff in state-of-the-art renewable energy installations, Heating, Ventilation, and Air Conditioning (HVAC) and insulation industry standards, best practices, and resources to ensure buildings are constructed in compliance with those industry standards and best practices. [ENERGY EFFICIENCY, HIGH GWP GASES] | | 30% |
| **MS-18.17:** Encourage the development of new water efficiency, conservation and reuse technologies by providing opportunities for pilot testing and evaluation and incentives for early adoption of such technologies within the community. [WATER] | | |
| **MS-19.1:** Require new development to contribute to the cost-effective expansion of the recycled water system in proportion to the extent that it receives benefit from the development of a sustainable local water supply. [WATER] | | |
| **MS-21.1:** Manage the Community Forest to achieve San José's environmental goals for water and energy conservation, wildlife habitat preservation, stormwater retention, heat reduction in urban areas, energy conservation, and the removal of carbon dioxide from the atmosphere. [SUSTAINABLE FORESTS] | | |
| **CD-2.1:** Promote the Circulation Goals and Policies in this Plan. Create streets that promote pedestrian and bicycle transportation by following applicable goals and policies in the Circulation section of this Plan.<br>a) Design the street network for its safe shared use by pedestrians, bicyclists, and vehicles. Include elements that increase driver awareness.<br>b) Create a comfortable and safe pedestrian environment by implementing wider sidewalks, shade structures, attractive street furniture, street trees, reduced traffic speeds, pedestrian-oriented lighting, mid-block pedestrian crossings, pedestrian-activated crossing lights, bulb-outs and curb extensions at intersections, and on-street parking that buffers pedestrians from vehicles.<br>c) Consider support for reduced parking requirements, alternative parking arrangements, and Transportation Demand Management strategies to reduce area dedicated to parking and increase area dedicated to employment, housing, parks, public art, or other amenities. Encourage de-coupled parking to ensure that the value and cost of parking are considered in real estate and business transactions. [TRANSPORTATION] | | 0% to 9% (Bicycles & Pedestrians)<br><br>0% to 50% (Parking Supply) |
| **CD-2.3:** Enhance pedestrian activity by incorporating appropriate design techniques and regulating uses in private developments, particularly in Downtown, Villages, Corridors, Main Streets, and other locations where appropriate. [TRANSPORTATION]<br>a) Include attractive and interesting pedestrian-oriented streetscape features such as street furniture, pedestrian scale lighting, pedestrian oriented way-finding signage, clocks, fountains, landscaping, and street trees that provide shade, with improvements to sidewalks and other pedestrian ways. | | 0% to 9%<br><br>6.7-20% VMT |

**Table 4.4-9**
**Comparison of Climate Change Scoping Plan Measures to 2040 General Plan Policies**

| California Scoping Plan Measure(s) | Envision San José 2040 General Plan Policy | BAAQMD Sector/*CAPCOA* Reduction Percentages[1] |
|---|---|---|
| | b) Strongly discourage drive-up services and other commercial uses oriented to occupants of vehicles in pedestrian-oriented areas. Uses that serve the vehicle, such as car washes and service stations, may be considered appropriate in these areas when they do not disrupt pedestrian flow, are not concentrated in one area, do not break up the building mass of the streetscape, are consistent with other policies in this Plan, and are compatible with the planned uses of the area.<br>c) Provide pedestrian connections as outlined in the Community Design Connections Goal and Policies.<br>d) Locate retail and other active uses at the street level.<br>e) Create easily identifiable and accessible building entrances located on street frontages or paseos.<br>f) Accommodate the physical needs of elderly populations and persons with disabilities.<br>g) Integrate existing or proposed transit stops into project designs. | |
| | **CD-2.5:** Integrate Green Building Goals and Policies of this Plan into site design to create healthful environments. Consider factors such as shaded parking areas, pedestrian connections, minimization of impervious surfaces, incorporation of stormwater treatment measures, appropriate building orientations, etc. [TRANSPORTATION, GREEN BUILDING] | 0% to 9% |
| | **CD-2.10:** Recognize that finite land area exists for development and that density supports retail vitality and transit ridership. Use land regulations to require compact, low-impact development that efficiently uses land planned for growth, particularly for residential development which tends to have a long life-span. Strongly discourage small-lot and single-family detached residential product types in growth areas. [TRANSPORTATION] | |
| | **CD-2.11:** Within the Downtown and Urban Village Overlay areas, consistent with the minimum density requirements of the pertaining Land Use/Transportation Diagram designation, avoid the construction of surface parking lots except as an interim use, so that long-term development of the site will result in a cohesive urban form. In these areas, whenever possible, use structured parking, rather than surface parking, to fulfill parking requirements. Encourage the incorporation of alternative uses, such as parks, above parking structures. [TRANSPORTATION] | 0% to 50% |
| | **CD-3.2:** Prioritize pedestrian and bicycle connections to transit, community facilities (including schools), commercial areas, and other areas serving daily needs. Ensure that the design of new facilities can accommodate significant anticipated future increases in bicycle and pedestrian activity. [TRANSPORTATION] | 0% to 9% |
| | **CD-3.3:** Within new development, create a pedestrian friendly environment by connecting the internal components with safe, convenient, accessible, and pleasant pedestrian facilities and by requiring pedestrian connections between building entrances and other site features and adjacent public streets. [TRANSPORTATION] | 0% to 9% |
| | **CD-3.4:** Encourage pedestrian cross-access connections between adjacent properties and require pedestrian and bicycle connections to streets and other public spaces, with particular attention and priority given to providing convenient access to transit facilities. Provide pedestrian and vehicular connections with cross-access easements within and between new and existing developments to encourage walking and minimize interruptions by parking areas and curb cuts. [TRANSPORTATION] | 0% to 9% |
| | **CD-3.6:** Encourage a street grid with lengths of 600 feet or less to facilitate walking and biking. Use design techniques such as multiple building entrances and pedestrian paseos to improve pedestrian and bicycle connections. [TRANSPORTATION] | 0% to 9% |

**Table 4.4-9**
**Comparison of Climate Change Scoping Plan Measures to 2040 General Plan Policies**

| California Scoping Plan Measure(s) | Envision San José 2040 General Plan Policy | BAAQMD Sector/*CAPCOA* Reduction Percentages[1] |
|---|---|---|
| **CD-3.8:** Provide direct access from developments to adjacent parks or open spaces, and encourage residential development to provide common open space contiguous to such areas. [TRANSPORTATION] | | |
| **CD-3.10:** New development should increase neighborhood connectivity by providing access across natural barriers (e.g., rivers) and man-made barriers (e.g., freeways). [TRANSPORTATION] | | 1% to 5% |
| **CD-5.1:** Design areas to promote pedestrian and bicycle movements and to facilitate interaction between community members and to strengthen the sense of community. [TRANSPORTATION] | | 0% to 9% |
| **CD-5.2:** Foster a culture of walking by designing walkable urban spaces; strategically locating jobs, residences and commercial amenities; providing incentives for alternative commute modes; and partnering with community groups and health services organizations to promote healthy life-styles for San José residents. [TRANSPORTATION] | | 2% (Local Serving Retail)<br><br>0% to 9% (Bike & Pedestrian) |
| **CD-7.6:** Incorporate a full range of uses in each Urban Village Plan to address daily needs of residents, businesses, and visitors in the area. Consider retail, parks, school, libraries, day care, entertainment, plazas, public gathering space, private community gathering facilities, and other neighborhood-serving uses as part of the Urban Village planning process. Encourage multi-use spaces wherever possible to increase flexibility and responsiveness to community needs over time. [TRANSPORTATION, GREEN BUILDING] | | -3% to 9%<br><br>2.6-13% VMT |
| **LU-2.1:** Provide significant job and housing growth capacity within strategically identified "Growth Areas" in order to maximize use of existing or planned infrastructure (including fixed transit facilities), minimize the environmental impacts of new development, provide for more efficient delivery of City services, and foster the development of more vibrant, walkable urban settings. [TRANSPORTATION] | | 0% to 9%<br><br>0.5-24.6% VMT for development near transit |
| **LU-2.2:** Include within the General Plan Land Use / Transportation Diagram significant job and housing growth capacity within the following identified Growth Areas: (*near transit-summarized)*<br>▪ Downtown<br>▪ Specific Plan Areas<br>▪ North San José<br>▪ Employment Lands<br>▪ Urban Villages: BART/Caltrain Station Areas<br>▪ Urban Villages: Transit / Commercial Corridors<br>▪ Urban Villages: Commercial Centers<br>▪ Urban Villages: Neighborhood Villages [TRANSPORTATION] | | 9-30% VMT |

**Table 4.4-9**
**Comparison of Climate Change Scoping Plan Measures to 2040 General Plan Policies**

| California Scoping Plan Measure(s) | Envision San José 2040 General Plan Policy | BAAQMD Sector/*CAPCOA* Reduction Percentages[1] |
|---|---|---|
| | **LU-2.3:** To support the intensification of identified Growth Areas, and to achieve the various goals related to their development throughout the City, restrict new development on properties in non-Growth Areas. [TRANSPORTATION] | |
| | **LU-2.4:** To accomplish the planned intensification of employment and residential uses at the Berryessa BART station, modify existing entitlements to expand the area planned for employment uses and to increase the density of employment and residential areas within the BART Station Village area. [TRANSPORTATION] | |
| | **LU-3.5:** Balance the need for parking to support a thriving Downtown with the need to minimize the impacts of parking upon a vibrant pedestrian and transit oriented urban environment. Provide for the needs of bicyclists and pedestrians, including adequate bicycle parking areas and design measures to promote bicyclist and pedestrian safety. [TRANSPORTATION] | 0% to 9% (Bicycles & Pedestrians)<br><br>0% to 50% (Parking Supply) |
| | **LU-3.6:** Prohibit uses that serve occupants of vehicles (such as drive-through windows) and discourage uses that serve the vehicle (such as car washes and service stations), except where they do not disrupt pedestrian flow, are not concentrated, do not break up the building mass of the streetscape, and are compatible with the planned uses of the area. [TRANSPORTATION] | 0% to 9% |
| | **LU-5.2:** To facilitate pedestrian access to a variety of commercial establishments and services that meet the daily needs of residents and employees, locate neighborhood-serving commercial uses throughout the city, including identified growth areas and areas where there is existing or future demand for such uses. [TRANSPORTATION] | 2% |
| | **LU-5.3:** Encourage new and intensification of existing commercial development in vertical mixed-use projects and, in some instances, integrated horizontal mixed-use projects, consistent with the Land Use / Transportation Diagram. [TRANSPORTATION] | -3% to 9% |
| | **LU-5.4:** Require new commercial development to facilitate pedestrian and bicycle access through techniques such as minimizing building separation from public sidewalks; providing safe, accessible, convenient, and pleasant pedestrian connections; and including secure and convenient bike storage. [TRANSPORTATION] | 0% to 9% |
| | **LU-5.5:** Provide pedestrian and vehicular connections between adjacent commercial properties with reciprocal-access easements to encourage safe, convenient, and direct pedestrian access and "one-stop" shopping. Encourage and facilitate shared parking arrangements through parking easements and cross-access between commercial properties to minimize parking areas and curb-cuts. [TRANSPORTATION] | 0% to 9% (Bicycles & Pedestrians)<br><br>0% to 50% (Parking Supply) |
| | **LU-6.4:** Encourage the development of new industrial areas and the redevelopment of existing older or marginal industrial areas with new industrial uses, particularly in locations which facilitate efficient commute patterns. Use available public financing to provide necessary infrastructure improvements as one means of encouraging this economic development and revitalization. [TRANSPORTATION] | |

**Table 4.4-9**
**Comparison of Climate Change Scoping Plan Measures to 2040 General Plan Policies**

| California Scoping Plan Measure(s) | Envision San José 2040 General Plan Policy | BAAQMD Sector/*CAPCOA* Reduction Percentages[1] |
|---|---|---|
| | **LU-7.3:** Encourage the use of industrially-planned land to provide locations for various forms of recycling services (e.g., collection, handling, transfer, processing, etc.), for the support facilities required by these services (e.g., service yards, truck storage and service) and for companies that manufacture new products out of recycled materials in order to support the City's Solid Waste Program. [RECYCLING AND WASTE] | |
| | **LU-9.1:** Create a pedestrian-friendly environment by connecting new residential development with safe, convenient, accessible, and pleasant pedestrian facilities. Provide such connections between new development, its adjoining neighborhood, transit access points, schools, parks, and nearby commercial areas. Consistent with Transportation Policy TR-2.11, prohibit the development of new cul-de-sacs or gated communities that do not provide through- and publicly-accessible bicycle and pedestrian connections. [TRANSPORTATION] | 0% to 9% |
| | **LU-9.2:** Facilitate the development of complete neighborhoods by allowing appropriate commercial uses within or adjacent to residential and mixed-use neighborhoods. [TRANSPORTATION] | -3% to 9% |
| | **LU-10.1:** Develop land use plans and implementation tools that result in the construction of mixed-use development in appropriate places throughout the City as a means to establish walkable, complete communities. [TRANSPORTATION] | -3% to 9% |
| | **LU-10.3:** Develop residentially- and mixed-use-designated lands adjacent to major transit facilities at high densities to reduce motor vehicle travel by encouraging the use of public transit. [TRANSPORTATION] | 0% to 15% |
| | **LU-10.4:** Within identified growth areas, develop residential projects at densities sufficient to support neighborhood retail in walkable, main street type development. [TRANSPORTATION] | 2% |
| | **LU-10.5:** Facilitate the development of housing close to jobs to provide residents with the opportunity to live and work in the same community. [TRANSPORTATION] | -3% to 9% |
| | **LU-10.6:** In identified growth areas, do not approve decreases in residential density through zoning change or development entitlement applications or through General Plan amendments. [TRANSPORTATION] | |
| | **LU-10.8:** Encourage the location of schools, private community gathering facilities, and other public/quasi public uses within or adjacent to Villages, Corridors and other growth areas and encourage these uses to be developed in an urban form and in a mixed-use configuration. [TRANSPORTATION] | -3 to 9% |
| | **LU-10.9:** Model the federal Interagency Partnership for Sustainable Communities (HUD-DOT-EPA) at the local level between Housing and other City Departments to facilitate the creation of smart growth communities. [TRANSPORTATION, GREEN BUILDING] | |
| | **LU-10.10:** Achieve 75% of residents who can access 25% of their retail/service needs within a 20-minute walk and 50% of residents who can access 50% of their retail/service needs within a 20-minute walk. [TRANSPORTATION] | 2% |
| | **LU-16.1:** Integrate historic preservation practices into development decisions based upon fiscal, economic, and environmental sustainability. [RECYCLING AND WASTE, GREEN BUILDING] | |
| | **LU-16.2:** Evaluate the materials and energy resource consumption implications of new construction to encourage preservation of historic resources. [RECYCLING AND WASTE] | |

**Table 4.4-9**
**Comparison of Climate Change Scoping Plan Measures to 2040 General Plan Policies**

| California Scoping Plan Measure(s) | Envision San José 2040 General Plan Policy | BAAQMD Sector/*CAPCOA* Reduction Percentages[1] |
|---|---|---|
| | **LU-16.3:** Encourage sustainable energy, water, and material choices that are historically compatible as part of the preservation, conservation, rehabilitation, and/or reuse of historical resources. [GREEN BUILDING, RECYCLING AND WASTE, ENERGY EFFICIENCY, WATER] | |
| | **LU-16.4:** Require development approvals that include demolition of a structure eligible for or listed on the Historic Resources Inventory to salvage the resource's building materials and architectural elements to allow re-use of those elements and materials and avoid the energy costs of producing new and disposing of old building materials. [RECYLCING AND WASTE] | |
| | **LU-18.1:** Protect and preserve the remaining farmlands within San José's sphere of influence that are not planned for urbanization in the timeframe of this general plan, such as mid- and south Coyote Valley, through the following means:<br>a. Strongly discourage conversion of agricultural lands outside the Urban Growth Boundary to non-agricultural uses. [TRANSPORTATION]<br>b. Limit residential uses in agricultural areas to those which are incidental to agriculture.<br>c. Prohibit subdivision of agricultural lands, unless it can be established that the subdivision would not reduce the overall agricultural productivity of the land and that viable agricultural operations would be sustained.<br>d. Encourage contractual protection for agricultural lands, such as Williamson Act contracts, agricultural conservation easements, transfers of development rights, or other property tax relief measures as incentives for preservation of these lands.<br>e. Restrict land uses within and adjacent to agricultural lands that would compromise the agricultural viability of these lands. Require new adjacent land uses to mitigate any impacts on the use of agricultural lands.<br>f. Require ancillary non-agricultural land uses on agricultural lands to be ancillary to and compatible with agricultural land uses, agricultural production, and the rural character of the area, and to enhance the economic viability of agricultural operations. | |
| | **LU-17.1:** Maintain the Greenline/Urban Growth Boundary to delineate the extent of existing and future urban activity and to reinforce fundamental policies concerning the appropriate location of urban development. [TRANSPORTATION] | |
| | **TR-1.1:** Accommodate and encourage use of non-automobile transportation modes to achieve San José's mobility goals and reduce vehicle trip generation and vehicle miles traveled (VMT). [TRANSPORTATION] | 0% to 15% |
| | **TR-1.3:** Increase substantially the proportion of commute travel using modes other than the single-occupant vehicle. [TRANSPORTATION] | |
| | **TR-1.4:** Through the entitlement process for new development fund needed transportation improvements for all transportation modes, giving first consideration to improvement of bicycling, walking and transit facilities. Encourage investments that reduce vehicle travel demand. [TRANSPORTATION] | 0% to 9% |
| | **TR-1.5:** Design, construct, operate, and maintain public streets to enable safe, comfortable, and attractive access and travel for motorists and for pedestrians, bicyclists, and transit users of all ages, abilities, and preferences. [TRANSPORTATION] | 0% to 9% (Bike & Pedestrian)<br><br>0% to 15% (Transit Service) |

**Table 4.4-9**
**Comparison of Climate Change Scoping Plan Measures to 2040 General Plan Policies**

| California Scoping Plan Measure(s) | Envision San José 2040 General Plan Policy | BAAQMD Sector/*CAPCOA* Reduction Percentages[1] |
|---|---|---|
| **TR-1.8:** Actively coordinate with regional transportation, land use planning, and transit agencies to develop a transportation network with complementary land uses that encourage travel by bicycling, walking and transit, and ensure that regional greenhouse gas emission standards are met. [TRANSPORTATION] | | 0% to 9% (Bike & Pedestrian)<br><br>0% to 15% (Transit Service) |
| **TR-1.12:** Update the City's engineering standards for public and private streets based on the new street typologies that incorporate the concept of "complete streets." [TRANSPORTATION] | | 1% to 5% |
| **TR-1.13:** Reduce vehicle capacity on streets with projected excess capacity by reducing either the number of travel lanes or the roadway width, and use remaining public right-of-way to provide wider sidewalks, bicycle lanes, transit amenities and/or landscaping. Establish criteria to identify roadways for capacity reduction (i.e., road diets) and conduct engineering studies and environmental review to determine implementation feasibility and develop implementation strategies. [TRANSPORTATION] | | 0% to 9% (Bike & Pedestrian)<br>0% to 15% (Transit Service)<br>*0.25-1.00% VMT* |
| **TR-1.15:** Pursue multimodal commute share goals and annually monitor progress toward achieving them for both residents and employees, and report every five years using data from the Census Bureau's annual American Community Survey (ACS). [TRANSPORTATION] | | |
| **TR-1.16:** Develop a strategy to construct a network of public and private alternative fuel vehicle charging /fueling stations city wide. [TRANSPORTATION] | | |
| **TR-2.2:** Provide a continuous pedestrian and bicycle system to enhance connectivity throughout the City by completing missing segments. Eliminate or minimize physical obstacles and barriers on City streets that impede pedestrian and bicycle movement, including consideration of grade-separated crossings at railroad tracks and freeways. Provide safe bicycle and pedestrian connections to all facilities regularly accessed by the public, including the San José International Airport. [TRANSPORTATION] | | 1% to 5% |
| **TR-2.4:** Encourage walking and bicycling and increase pedestrian and bicycle safety through education programs. [TRANSPORTATION] | | |
| **TR-2.7:** Give priority to pedestrian improvement projects that: improve pedestrian safety; improve pedestrian access to and within the Urban Villages and other growth areas; and that improve access to parks, schools, and transit facilities. [TRANSPORTATION] | | 0% to 9% |
| **TR-2.8:** Require new development to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements. [TRANSPORTATION, GREEN BUILDING] | | Up to 2% for shower facilities plus up to 10% for transit and pedestrian and bike friendliness. |
| **TR-2.9:** Coordinate and collaborate with the Santa Clara Valley Transportation Authority, Peninsula Corridor Joint Powers Board, Amtrak, ACE, and local shuttle operators to permit bicyclists to transport bicycles and provide appropriate amenities on-board all commuter trains, | | 0% to 9% |

**Table 4.4-9**
**Comparison of Climate Change Scoping Plan Measures to 2040 General Plan Policies**

| California Scoping Plan Measure(s) | Envision San José 2040 General Plan Policy | BAAQMD Sector/*CAPCOA* Reduction Percentages[1] |
|---|---|---|
| buses, and shuttles. Coordinate with local transit operators to provide secure bicycle parking facilities at all park-and-ride lots, train stations, and major bus stops. [TRANSPORTATION] | | |
| | **TR-2.10:** Coordinate and collaborate with local School Districts to provide enhanced, safer bicycle and pedestrian connections to school facilities throughout San José. [TRANSPORTATION] | 0% to 9% |
| | **TR-2.14:** Conduct a citywide survey to identify pedestrian barriers on key pedestrian routes or access points and then identify how and when these barriers will be removed. Include top priority pedestrian projects in the annual CIP update. To conduct such a survey consider partnering with SJSU or the community to build relationships with SJSU and/or the community and to facilitate the completion of the survey with limited City resources, and to reduce the cost of staff time required for such a survey. [TRANSPORTATION] | 1% to 5% |
| | **TR-2.17:** Establish a pilot public bike program that allows free or low-cost rental of bikes at key locations (e.g., transit stations, San José Diridon Station, San José State University) to encourage cycling as a primary mode and facilitate use of transit without having to transport a bicycle. [TRANSPORTATION] | 0% to 9% |
| | **TR-2.18:** Provide bicycle storage facilities as identified in the Bicycle Master Plan. [TRANSPORTATION] | 0% to 9% |
| | **TR-2.20:** Continue to participate in and support the recommendations of the Safe Routes to School program. As part of the on-going Safe Routes to School program, work with School Districts to increase the proportion of students who walk or bike to school by improving the safety of routes to school, by educating students and parents about the health and environmental benefits of walking and bicycling, and by creating incentives to encourage students to walk and bike. [TRANSPORTATION] | |
| | **TR-3.1:** Pursue development of BRT, bus, shuttle, and fixed guideway (i.e., rail) services on designated streets and connections to major destinations. [TRANSPORTATION] | 0% to 15% |
| | **TR-3.2:** Ensure that roadways designated as Grand Boulevards adequately accommodate transit vehicle circulation and transit stops. Prioritize bus mobility along Stevens Creek Boulevard, The Alameda, and other heavily traveled transit corridors. [TRANSPORTATION] | 0% to 15% |
| | **TR-3.3:** As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute toward transit ridership. In addition, require that new development is designed to accommodate and to provide direct access to transit facilities. [TRANSPORTATION] | 0% to 15%<br>*1.5-30% VMT* |
| | **TR-3.5:** Work with the Valley Transportation Authority (VTA) and other public transit providers to increase transit frequency and service along major corridors and to major destinations like Downtown and North San José. [TRANSPORTATION] | 0% to 15% |
| | **TR-3.6:** Collaborate with Caltrans and Santa Clara Valley Transportation Authority to prioritize transit mobility along the Grand Boulevards identified in Figure ___. Improvements could include installing transit signal priority, queue jump lanes at congested intersections, and/or exclusive bus lanes. [TRANSPORTATION] | 0% to 15% |

**Table 4.4-9**
**Comparison of Climate Change Scoping Plan Measures to 2040 General Plan Policies**

| California Scoping Plan Measure(s) | Envision San José 2040 General Plan Policy | BAAQMD Sector/*CAPCOA* Reduction Percentages[1] |
|---|---|---|
| **TR-3.7:** Regularly collaborate with BART to coordinate planning efforts for the proposed BART extension to San José/Santa Clara with appropriate land use designations and transportation connections. [TRANSPORTATION] | | 0% to 15% |
| **TR-3.9:** Ensure that all street improvements allow for easier and more efficient bus operations and improved passenger access and safety, while maintaining overall pedestrian and bicycle safety and convenience. [TRANSPORTATION] | | 0% to 9% |
| **TR-4.2:** Work collaboratively with the California High-Speed Rail Authority to bring high speed rail to San José in a timely manner. [TRANSPORTATION] | | 0% to 15% |
| **TR-5.3:** The minimum overall roadway performance during peak travel periods should be level of service "D" except for designated areas. *An exception to the level of service "D" standard that reinforces multimodal improvements and transportation alternatives is listed below.*<br>• **Protected Intersections.** In recognition that roadway capacity-enhancing improvement measures can impede the City's ability to encourage infill, preserve community livability, and promote transportation alternatives that do not solely rely on automobile travel, specially designated Protected Intersections are exempt from traffic mitigation measures. Protected Intersections are located in Special Planning Areas where proposed developments causing a significant LOS impact at a Protected Intersection are required to construct multimodal (non-automotive) transportation improvements in one of the City's designated Community Improvement Zones. These multimodal improvements are referred to as off-setting improvements and include improvements to transit, bicycle, and/or pedestrian facilities. [TRANSPORTATION] | | 0% to 9% (Bicycle & Pedestrian)<br>0% to 15% (Transit Service) |
| **TR-7.1:** Require large employers to develop TDM programs to reduce the vehicle trips generated by their employees. [TRANSPORTATION] | | |
| **TR-7.2:** Update and enhance the existing TDM program for City of San José employees. This program may include the expansion of transit pass subsidies, free shuttle service, preferential carpool parking, ridesharing, flexible work schedules, parking pricing, car-sharing, and other measures. [TRANSPORTATION] | | 0% to 9% (Transit Service)<br>1% to 40% (Flexible Work Schedules)<br>0% to 25% (Daily Parking Charge)<br>Up to 2% (Preferential Carpool Parking)<br>*1.5-30% VMT (Car sharing)* |
| **TR-7.3:** Work together with large employers to develop a system for tracking Transportation Demand Management (TDM) programs implemented by employers to allow ongoing assessment of results. [TRANSPORTATION] | | |

**Table 4.4-9**
**Comparison of Climate Change Scoping Plan Measures to 2040 General Plan Policies**

| California Scoping Plan Measure(s) | Envision San José 2040 General Plan Policy | BAAQMD Sector/*CAPCOA* Reduction Percentages[1] |
|---|---|---|
| **TR-8.1:** Promote transit-oriented development with reduced parking requirements and promote amenities around appropriate transit hubs and stations to facilitate the use of available transit services. [TRANSPORTATION] | | 0% to 15% (Transit)<br><br>0% to 50% (Parking Supply) |
| **TR-8.2:** Balance business viability and land resources by maintaining an adequate supply of parking to serve demand while avoiding excessive parking supply that encourages automobile use. [TRANSPORTATION] | | 0% to 50% |
| **TR-8.3:** Support using parking supply limitations and pricing as strategies to encourage use of non-automobile modes. [TRANSPORTATION] | | 0% to 25% (Daily Parking Charge)<br><br>0% to 50% (Parking Supply) |
| **TR-8.4:** Discourage, as part of the entitlement process, the provision of parking spaces significantly above the number of spaces required by code for a given use. [TRANSPORTATION] | | 0% to 50% |
| **TR-8.5:** Promote participation in car share programs to minimize the need for parking spaces in new and existing development. [TRANSPORTATION] | | Up to 2% |
| **TR-8.6:** Allow reduced parking requirements for mixed-use developments and for developments providing shared parking or a comprehensive TDM program, or developments located near major transit hubs or within Villages and Corridors and other growth areas. [TRANSPORTATION] | | 0% to 50% |
| **TR-8.8:** Promote use of unbundled private off-street parking associated with existing or new development, so that the sale or rent of a parking space is separated from the rent or sale price for a residential unit or for non-residential building square footage. [TRANSPORTATION] | | 0% to 50% |
| **TR-8.9:** Consider adjacent on-street and City-owned off-street parking spaces in assessing need for additional parking required for a given land use or new development. [TRANSPORTATION] | | 0% to 50% |
| **TR-8.10:** Update existing parking standards to reduce parking requirements for transit-oriented developments, mixed-use projects, and projects within the Urban Villages and Corridors to take advantage of shared parking opportunities generated by mixed-use development. Update existing parking standards to address TDM actions and to require amenities and programs that support reduced parking requirements. [TRANSPORTATION] | | 0% to 50%<br><br>*2.6-13%* |
| **TR-8.12:** As part of the entitlement process, consider opportunities to reduce the number of parking spaces through shared parking, TDM actions, parking pricing or other measures which can reduce parking demand. Consider the use of reserve landscaped open space or recreational areas that can be used on a short-term basis to provide parking or converted to formal parking in the future if necessary. [TRANSPORTATION] | | 0% to 50% |
| **TR-9.1:** Enhance, expand and maintain facilities for walking and bicycling, particularly to connect with and ensure access to transit and to provide a safe and complete alternative transportation network that facilitates non-automobile trips. [TRANSPORTATION] | | 0% to 9% (Bicycle & Pedestrian) |

**Table 4.4-9**
**Comparison of Climate Change Scoping Plan Measures to 2040 General Plan Policies**

| California Scoping Plan Measure(s) | Envision San José 2040 General Plan Policy | BAAQMD Sector/*CAPCOA* Reduction Percentages[1] |
|---|---|---|
| | | 0% to 15% (Transit Service) |
| **TR-9.2:** Serve as a model for VMT reduction by implementing programs and policies that reduce VMT for City of San José employees. [TRANSPORTATION] | | |
| **TR-10.1:** Explore development of a program for implementation as part of Tier II, to require that parking spaces within new development in areas adjacent to transit and in all mixed-use projects, be unbundled from rent or sale of the dwelling unit or building square footage. [TRANSPORTATION] | | 0% to 50% |
| **TR-10.2:** In Tier II, reduce the minimum parking requirements Citywide. [TRANSPORTATION] | | 0% to 50% |
| **TR-10.3:** Encourage participation in car share programs for new development in identified growth areas. [TRANSPORTATION] | | Up to 2% plus up to 10% for transit and pedestrian and bike friendliness. |
| **TR-10.4:** In Tier II, require that a portion of adjacent on-street and City owned off-street parking spaces be counted toward meeting the zoning code's parking space requirements. [TRANSPORTATION] | | 0% to 50% |
| **TR-10.5:** Work with employers in Tier II to monitor employer achievement of TDM program measures and explore incentives for successes and/or consider penalties for non-compliance. [TRANSPORTATION] | | |
| **TR-10.6:** Working with members of the development and financial communities, and neighborhood residents, establish, in Tier II, Citywide parking standards in the Zoning Code which establish maximum parking rates, or "parking caps" for new development. [TRANSPORTATION] | | 0% to 50% |
| **TR-11.1:** Support, at the state level, the establishment of vehicle taxes targeted to fund congestion pricing strategies and public transportation, bicycle and pedestrian infrastructure. [TRANSPORTATION] | | 0% to 9% (Bicycle & Pedestrian)<br><br>0% to 15% (Transit Service) |
| **TR-11.3:** Support and collaborate on the development of toll lanes on all major freeways and expressways in Santa Clara County.[TRANSPORTATION] | | |
| **TR-12.1:** Develop a citywide ITS system that sustainably manages and integrates all modes of travel including bicycles, automobiles, trucks, transit, and emergency vehicles. [TRANSPORTATION] | | |

**Table 4.4-9**
**Comparison of Climate Change Scoping Plan Measures to 2040 General Plan Policies**

| California Scoping Plan Measure(s) | Envision San José 2040 General Plan Policy | BAAQMD Sector/*CAPCOA* Reduction Percentages[1] |
|---|---|---|
| **TR-12.2:** Enhance the safety and effectiveness of transit service, bicycle, and pedestrian travel as alternative modes using advanced ITS systems. [TRANSPORTATION] | | 0% to 9% (Bicycle & Pedestrian)<br><br>0% to 15% (Transit Service) |
| **TR-12.4:** Provide enhanced management of new, efficient streetlights for energy savings, sustainability, and safety along corridors and at intersections. [TRANSPORTATION] | | |
| **TR-12.5:** Develop a system to provide real-time travel information along all arterial streets. This will enable all users to make informed travel decisions, enhance safety, increase use of non-auto travel modes, minimize emergency response times and reduce greenhouse gas emissions. [TRANSPORTATION] | | |
| **TR-12.8:** Implement technology on select roadways to support bicycling as the preferred mode of transportation, such as advanced detection, signal priority timing, and public information kiosks. [TRANSPORTATION] | | 0% to 9%<br>*0-45% VMT* |
| **TN-2.2:** Provide direct, safe and convenient bicycle and pedestrian connections between the trail system and adjacent neighborhoods, schools, employment areas and shopping areas. [TRANSPORTATION] | | 0% to 9% |
| **TN-2.3:** Add and maintain necessary infrastructure to facilitate the use of trails as transportation. [TRANSPORTATION] | | 0% to 9% |
| **TN-2.6:** Integrate and connect trail and pathway networks with a larger network of countywide and regional trails such as the Bay Area Ridge, San Francisco Bay, and Juan Bautista De Anza Trails to allow for a broad base of opportunities and linkage with the greater Bay Area. [TRANSPORTATION] | | 0% to 9% |
| **TN-2.7:** Encourage all developers to install and maintain trails when new development occurs adjacent to a designated trail location, in accordance with Policy PR-8.5. [TRANSPORTATION] | | 0% to 9% |
| **TN-2.8:** Coordinate and connect the trail system with the on-street bikeway system, and consider policies from the Circulation and the Parks, Trails, Open Space, and Recreation Amenities/Programs sections of this Plan to create a complete BikeWeb to serve the needs of San José's diverse community. [TRANSPORTATION] | | 0% to 9% |
| **TN-2.10:** Work with the Santa Clara Valley Water District and the utilities, including PG& E, to explore opportunities to develop trails, joint-use facilities, and/or other recreational amenities along their rights-of-way. [TRANSPORTATION] | | 0% to 9% |
| **TN-2.11:** Work with local school districts to identify trails as Safe Routes to School. [TRANSPORTATION] | | |
| **IP-2.4:** Conduct a Major Review of this General Plan by the City Council every four years to evaluate the City's achievement of key economic development, fiscal and infrastructure/service goals, greenhouse gas emission reduction goals and targets, availability and affordability of housing supply, Healthful Community goals, and review changes and trends in land use and development. Based on this review, determine the City's readiness to begin the next General Plan Horizon or to modify the number of "pool" residential units available for non-specific Urban | | |

**Table 4.4-9**
**Comparison of Climate Change Scoping Plan Measures to 2040 General Plan Policies**

| California Scoping Plan Measure(s) | Envision San José 2040 General Plan Policy | BAAQMD Sector/*CAPCOA* Reduction Percentages[1] |
|---|---|---|
| Village areas within the current Plan Horizon. Amend the Land Use / Transportation Diagram and/or General Plan policies and actions to achieve key General Plan goals. [TRANSPORTATION] | | |
| | **IP-3.2:** As part of the General Plan Annual Review, carefully monitor the jobs-to-employed resident ratio and consider the following current development trends:<br>• Vacant land absorption,<br>• Amount of residential and economic development,<br>• Amount and value of non-residential construction,<br>• Number and types of housing units authorized by building permit, and development activity level in zonings, development permits, annexations and building permits,<br>• Status and current capacity of major infrastructure systems which are addressed in General Plan Level of Service policies (transportation, sanitary sewers, and sewage treatment),<br>• Transit-ridership statistics and other measures of peak-hour diversion from single occupant vehicles, [TRANSPORTATION]<br>• Status and implementation of Green Vision, General Plan policies, and other greenhouse gas reduction strategy measures, including greenhouse gas emission reductions compared to baseline and/or business-as-usual, and<br>• Levels of police, fire, parks and library services being provided by the City. | |
| | **IP-3.7:** Monitor, evaluate and annually report on the success of the programs and actions contained within the Greenhouse Gas Reduction City Council Policy to demonstrate progress toward achieving required State of California Greenhouse Gas reduction targets (at or below 1990-equivalent levels) by 2020, 2035 and 2050. Refine existing programs and/or identify new programs and actions to ensure compliance and update the Council Policy as necessary. [ALL] | |
| | **IP-3.8:** Consistent with the City's Green Vision, evaluate achievement of the following goals for environmental sustainability as part of each General Plan annual review process:<br>• Reduce per capita energy consumption by at least 50% compared to 2008 levels by 2022 and maintain or reduce net aggregate energy consumption levels equivalent to the 2022 (Green Vision) level through 2040. (Reduce Consumption and Increase Efficiency Goal MS-14)<br>• Replace 100% of the City's traffic signals and streetlights with smart, zero emission lighting by 2022. (Reduce Consumption and Increase Efficiency Action MS-14.6)<br>• Measure annually the shares of the City's total Carbon Footprint resulting from energy use in the built environment, transportation, and waste management. (Reduce Consumption and Increase Efficiency Action MS-14.7)<br>• Receive 100% of electrical power from clean renewable sources (e.g., solar, wind, hydrogen) by 2022 and to the greatest degree feasible increase generation of clean, renewable energy within the City to meet its energy consumption needs. (Renewable Energy Goal MS-15)<br>• Facilitate the installation of at least 100,000 solar roofs in San José by 2022 and at least 200,000 solar roofs by 2040. (Renewable Energy Policy MS-15.3) | 100% (solar panels on residential and commercial buildings) |

**Table 4.4-9**
**Comparison of Climate Change Scoping Plan Measures to 2040 General Plan Policies**

| California Scoping Plan Measure(s) | Envision San José 2040 General Plan Policy | BAAQMD Sector/*CAPCOA* Reduction Percentages[1] |
|---|---|---|
| • Document green building new construction and retrofits as a means to show progress towards the Green Vision Goal of 50 million square feet of green buildings in San José by 2022 and 100 million square feet by 2040. (Green Building Policy Leadership Action MS-1.8)<br>• Divert 100% of waste from landfills by 2022 and maintain 100% diversion through 2040. (Waste Diversion Goal MS-5)<br>• Work with stakeholders to establish additional landfill gas-to-energy systems and waste heat recovery by 2012 and prepare an ordinance requiring such action by 2022 for Council consideration. (Environmental Leadership and Innovation Action MS-7.12)<br>• Develop a schedule to discontinue the use of disposable, toxic or nonrenewable products as outlined in the United Nations Urban Environmental Accords. City use of at least one such item shall be discontinued each year throughout the planning period. In the near-term, staff will monitor the regulation of single-use carryout bags to ensure that their use in the City is reduced by at least 50%, or shall propose enhanced regulation or an alternate product. Staff will evaluate all such products for regulation or for use in energy recovery processes and shall recommend such regulations as are necessary to eliminate landfilling such products in the long-term (2022-2040). (Environmental Leadership and Innovation Action MS-7.13)<br>• Prepare an ordinance for Council consideration by 2012 that would enact regional landfill bans during the near- and mid-terms for organic material such as food waste and yard trimmings that contribute to methane generation in landfills. (Environmental Stewardship Action MS-8.8)<br>• Continue to increase the City's alternative fuel vehicle fleet with the co-benefit of reducing local air emissions and continue to implement the City's environmentally Preferable Procurement Policy (Council Policy 4-6) and Pollution Prevention Policy (Council Policy 4-5) in a manner that reduces air emissions from municipal operations. Continue to support policies that reduce vehicle use by City employees. (Air Pollutant Emission Reduction Action MS-10.12)<br>• Quantitatively track the City's education program on the public use of water. Adjust the program as needed to meet General Plan goals. (Responsible Management of Water Supply MS-17.6)<br>• Continuously improve water conservation efforts in order to achieve best in class performance. Double the City's annual water conservation savings by 2040 and achieve half of the Water District's goal for Santa Clara County on an annual basis.(Water Conservation Goal MS-18)<br>• Reduce residential per capita water consumption by 25% by 2040. (Water Conservation Policy MS-18.4)<br>• Achieve by 2040, 50 Million gallons per day of water conservation savings in San José, by reducing water use and increasing water efficiency. (Water Conservation Policy MS-18.5) Use the 2008 Water Conservation Plan as the data source to determine the City's baseline water conservation savings level. (Water Conservation Policy MS-18.6)<br>• Recycle or beneficially reuse 100% of the City's wastewater supply, including the indirect use of recycled water as part of the potable water supply. (Water Recycling Goal MS-19)<br>• Develop performance measures for tree planting and canopy coverage which measure the City's success in achieving the Community Forest goals. These performance measures should inform tree planting goals for the years between 2022 (the horizon year for the Green Vision) and 2040. (Community Forest Action MS-21.16) | |

**Table 4.4-9**
**Comparison of Climate Change Scoping Plan Measures to 2040 General Plan Policies**

| California Scoping Plan Measure(s) | Envision San José 2040 General Plan Policy | BAAQMD Sector/*CAPCOA* Reduction Percentages[1] |
|---|---|---|
| • Track progress towards achieving at least 25,000 new Clean Technology jobs by 2022. Track progress towards achieving at least 70,000 new clean tech jobs by the year 2040 or achieving 10% of the City's total jobs in Clean Technology by the year 2040. (Clean Technology Action IE-7.9)<br>• Develop a trail network that extends a minimum of 100 miles. (Trail Network Measure TN-2.12)<br>• Provide all residents with access to trails within 3 miles of their homes. (Trail Network Measure TN-2.13)<br>[ENERGY EFFICIENCY, GREEN BUILDING, RECYCLING AND WASTE, SUSTAINABLE FORESTS, WATER, and TRANSPORTATION] | | |
| | **IP-3.9:** To facilitate implementation of greenhouse gas reduction measures as part of development review, adopt a City Council Policy that guides analyses and determinations regarding the conformance of proposed development with the City's adopted Greenhouse Gas Emission Reduction Strategy. [ALL] | |
| | **IP-17.2:** Develop and maintain a Greenhouse Gas Reduction Strategy or equivalent policy document as a road map for the reduction of greenhouse gas emissions within San José, including those with a direct relationship to land use and transportation. The Greenhouse Gas Reduction Strategy identifies the specific items within this General Plan that contribute to the reduction of greenhouse gas emissions and considers the degree to which they will achieve its goals. The General Plan and Land Use / Transportation Diagram contain multiple goals and policies which will contribute to the City's reduction of greenhouse gas emissions, including a significant reliance upon new growth taking place in a more compact urban form that facilitates walking, mass transit, or bicycling. [ALL] | 0% to 9% (Bicycle & Pedestrian)<br><br>0% to 15% (Transit Service) |
| | **IP-17.3:** Actively participate in the development of a Sustainable Community Strategy and/or other regional environmental policies that are consistent with San José's goals for Environmental Leadership as well as the other goals and policies contained within this General Plan. [TRANSPORTATION] | |
| | **IP-17.4:** Report on the City's achievement of environmental goals and consistency with State or Regional environmental requirements as part of the General Plan Annual Review and Major Review processes. [ALL] | |

[1]The GHG reduction percentages listed in this table for informational purposes are for individual sectors or categories, such as transportation, energy use in buildings, or waste.

BAAQMD Sector emission reduction ranges are from the following reference: Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines (4. Operational-Related Impacts).* 2010.

CAPCOA Reduction Percentages (shown in *italics*) are from the following reference: California Air Pollution Officers Association (CAPCOA). *Quantifying Greenhouse Gas Mitigation Measures A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures.* August 2010.

First Update to the Scoping Plan (2014)

The First Update to the Climate Change Scoping Plan ("First Update") highlights California's progress toward meeting the near-term 2020 greenhouse gas emission reduction goals defined in the 2008 Scoping Plan and evaluates how to align the State's longer-term greenhouse gas reduction strategies with other State policy priorities such as for water, waste, natural resources, agriculture, clean energy, transportation, and land use. Achieving the low-carbon future called for in the Executive Orders by 2050 will require that the pace of GHG emission reductions in California accelerate significantly.

The First Update notes that California's local and regional governments are critical partners in meeting the State's GHG goals. They have broad influence and, in some cases, sole authority over activities that contribute to GHG emissions, including industrial permitting, land use and transportation planning and other standards, and control of municipal operations.

Key items for local governments, such as San José, in the First Update are discussed below in Table 4.4-10.

Overall, City of San José policies and programs for reducing GHG emissions are consistent with local actions envisioned in both the initial Scoping Plan and the First Update and would not conflict with implementation of the State's Climate Change Scoping Plan to reduce greenhouse gases.

**Table 4.4-10**
**First Update to the Climate Change Scoping Plan –**
**Roles of Local and Regional Governments**

| Concept | 2040 General Plan or City of San José Efforts |
|---|---|
| **Setting Community-wide Emissions Reduction Targets beyond 2020**<br><br>As California continues to build its climate policy framework, the First Update to the Scoping Plan identifies there is a need to adopt mid-term and long-term reduction targets consistent with scientific assessments and the statewide goal of reducing emissions 80 percent below 1990 levels by 2050.<br><br>Local government reduction targets should chart a reduction trajectory that is consistent with, or exceeds, the trajectory created by statewide goals. | The City of San José, as a part of its 2040 General Plan Update adopted an efficiency target for mid-term (2020) and long-term periods (2035). In accordance with City General Plan policies, those targets may be adjusted as new information, such as new statewide targets develop.<br><br>The City adopted efficiency targets (based upon statewide goals) due to the City's proportion of growth within the region.<br><br>In accordance with City General Plan Policies IP-2.4, IP-3.7 and IP- 17.4, those targets may be adjusted as new information, such as new statewide targets develop. |
| **Local Government Financing Mechanisms and Incentives** | Consistent with General Plan Policy **MS-18.17** and the City's Green Vision, the City participates in and encourages private GHG reduction measures, such as energy efficiency programs to retrofit existing buildings in the community. |
| **Implementation of Integrated, Sustainable Regional Transportation Plans** | Plan Bay Area is the Regional Transportation Plan and Sustainable Communities Strategy for the San Francisco Bay Area. The City, consistent with its General Plan, has identified Growth Areas that also are considered Priority Development Areas for focused, efficient and sustainable growth near transit. The City is a participant in this on-going regional planning process with its own targets of reducing light vehicle greenhouse gas emissions (see discussion of Plan Bay Area, below). |
| **Improving Municipal Operations** | Consistent with General Plan Policies **MS-10.12, MS-15.6,** and **IP 3-8** and the City's Green Vision, the City has improved their municipal operations by upgrading the proportion of their municipal fleet that are electric and alternative energy vehicles, retrofitting government buildings, adding solar voltatics for energy production, replacing street lights with LEDs, and reducing waste. |

Note: The role of local and regional leadership is discussed on pages 111-113 of the *First Update to the Climate Change Scoping Plan.*

**Plan Bay Area**
**(California Senate Bill 375 Implementation)**

*Plan Bay Area* is an integrated land use/transportation plan that includes regional GHG reduction and other targets, consistent with both Sustainable Communities Strategy (SB 375) and Regional Transportation Plan (RTP) requirements. At the time of preparation of the 2040 General Plan PEIR, SB 375 had been signed into law, but Plan Bay Area had not yet been completed or adopted. The 2040 General Plan PEIR (Section 3.15.5.1 and Table 3.15-8 in the 2040 General Plan PEIR) included a discussion and table that outlined the policies in the General Plan that were equivalents to SB 375 sample policy categories identified by the California Air Resources Board. The basic concepts of utilizing the location of development, density, infill, design, reducing pressure on greenfields by directing growth to existing developed areas, and improvements of bicycle and pedestrian infrastructure were included in policies throughout the General Plan 2040.

A basic land use strategy for sustainability in the Bay Area is to promote compact, mixed-use development close to public transit, jobs, schools, shopping, parks, recreation, and other amenities, particularly within Priority Development Areas (PDAs) identified by local jurisdictions. PDAs are locally-identified, infill development opportunity areas within existing communities. Overall, about two-thirds of planned regional growth by 2040 (jobs and housing) is allocated in *Plan Bay Area* within PDAs. As shown in Figure 4.4-2, there are a number of PDAs in San José where new growth within the City will be focused.

As an integrated land use and transportation plan, Plan Bay Area has performance targets for reducing greenhouse gas emissions (climate protection) as well as increasing transportation system effectiveness in part through increasing non-auto mode share and decreasing automobile vehicle miles travel per capita. The 2040 General Plan includes policies and actions that would facilitate and encourage the use of non-auto modes of travel, growth near transit, and reductions in VMT, consistent with Plan Bay Area's vision and forward-looking regional planning effort.

It is important to note that adoption of *Plan Bay Area* does not mandate any changes to local zoning, general plans or project review. As described in *Plan Bay Area*, the region's cities, towns and counties maintain control of all decisions to adopt plans and permit or deny development projects. Similarly, Plan Bay Area's forecasted job and housing numbers do not act as a direct or indirect cap on development locations in the region. The forecasts are required by SB 375 and reflect the intent of regional and local collaboration that is the foundation of *Plan Bay Area*.

The Envision San José 2040 General Plan includes policies and actions which provide for new compact, mixed use development near transit, provide for increased use of alternative modes of transportation, and trip reduction strategies to reduce VMT and, therefore, the 2040 General Plan is consistent with the vision of Plan Bay Area for growth within the PDAs and the City.

**Draft 2015 California Transportation Plan**
**(California Senate Bill 391 Implementation)**

The CTP defines performance-based goals, policies, and strategies to achieve the State's collective vision for California's future statewide, integrated, multimodal transportation system. Transportation policies in the 2040 General Plan call for consideration of all modes of travel, the provision of complete streets and for the City to accommodate and encourage use of non-automobile transportation modes to reduce vehicle trip generation and vehicle miles traveled, and to actively coordinate with other agencies to ensure that regional greenhouse gas emission standards are met (e.g., Policies TR-1.1, TR-1.4, TR-1.5, TR-1.8). These measures are in keeping with the goals and policies in the draft 2015 California Transportation Plan.

The transportation policies and transportation diagram incorporating the concepts of complete streets, transportation operations efficiency, and multi-modal transportation options in the 2040 General Plan would be consistent with the policies in the draft 2015 California Transportation Plan.

**Consistency with Other Applicable Laws and Regulations**
**That Reduce GHG Emissions**

As outlined in *Section 4.4.1.2, Regulatory Framework*, there are a number laws that have been adopted as a part of the State of California's efforts to reduce GHG emissions and their contribution to climate change. State laws and regulations related to growth, development, planning and municipal operations in San José include, but are not limited to:

- California Global Warming Solutions Act (AB 32)
- Sustainable Communities and Climate Protection Act (SB 375)
- California Mandatory Commercial Recycling Law (AB 341)
- California Water Conservation in Landscaping Act of 2006 (AB 1881)
- California Water Conservation Act of 2009 (SBX7-7)
- Various Diesel-Fuel Vehicle Idling regulations in Chapter 13 of the California Code of Regulations
- Building Energy Efficiency Standards (Title 24, Part 6)
- California Green Building Code (Title 24, Part 11)
- Appliance Energy Efficiency Standards (Title 20)

Implementation of the policies in the 2040 General Plan as a part of City of San José development permitting and other programs provides for meeting building standards for energy efficiency, recycling, and water conservation, consistent with the laws and regulations designed to reduce greenhouse gas emissions. Requirements for signage reminding drivers of limits on vehicle idling are also called for in General Plan Action MS-11.8 during site development.

Implementation of 2040 General Plan policies, along with compliance with applicable standards in State laws and regulations listed above will provide for consistency with state and regional GHG

reduction planning efforts. Therefore, implementation of the General Plan would not conflict with regulations adopted for the purpose of reducing GHG emissions.

**IMPACT GHG-5:** Goals, policies and actions in the 2040 General Plan would not conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. **(Less Than Significant Impact)**

## 4.4.5 Mitigation and Avoidance Measures for Greenhouse Gas Emissions Impacts

### 4.4.5.1 *2040 General Plan and Greenhouse Gas Reduction Strategy*

**San José GHG Emissions in 2035**

The General Plan includes a program-level Greenhouse Gas Reduction Strategy that provides the framework for implementing measures within the City's purview and control. The Greenhouse Gas Reduction Strategy consists of a phased approach to update GHG emission inventories and projections, refine and improve reduction strategies, and confirm that the City is on track to first meet targets per AB 32 and then move progressively towards meeting the more aggressive goal of an 80 percent reduction in GHG emissions by 2050 (or 40 percent by 2035) compared to a 2008 baseline (1990 equivalent) baseline. Measures are identified in the inaugural version of the Greenhouse Gas Reduction Strategy that could conservatively result in GHG emission reductions of approximately 227,906 MT $CO_2e$ beyond the business-as-usual emissions estimated for 2035 prepared in 2011. Statewide measures, formally adopted in regulations or other programs, would account for an additional 2,334,178 MT $CO_2e$ (refer to reduction estimates in Table 4.4-7). The emission reductions identified at this time are not large enough to meet the identified 3.04 MT $CO_2e$/SP efficiency metric. An additional reduction of 5,392,000 MT $CO_2e$ per year would be required for the projected service population to meet the City's target for 2035.

Some measures in the Greenhouse Gas Reduction Strategy have not been quantified. In addition, some estimates are now fully or partially reflected in the Statewide Measures category of reduction estimates (refer to Table 4.4-7 and Appendix D). These City measures include:

- LUT-1, LUT-2 and LUT-3 (Combination of Increased Density, Mixed Uses and Location Efficiency on VMT)
- LUT-5 (Multi-Family Residential Bike Parking)
- BEE-4 (Community Energy Programs)
- BEE-7 (LED Traffic Lights)
- OM-1 (Urban Tree Planting)
- OM-2 (Farmer's Market)
- OM-3 (Community Gardens)

Previous estimates for the largest reductions for these measures were on the order of about 500,000 - 700,000 MT $CO_2e$ per year, assuming emission factors for energy production and vehicle operation

available at the time of completion of the 2040 General Plan PEIR. With the implementation of new or updated statewide regulations such as the Renewables Portfolio Standard and Clean Car Programs accounted for in the Statewide Emission Reductions category, reductions for the measures listed above are expected to be somewhat lower than the 500,000 -700,000 MT $CO_2e$ per year previously estimated. Therefore, the measures listed above would not provide enough additional greenhouse gas emission reductions to reduce impacts to a less than significant level.

**Mitigation Measures**

**MM GHG-3.1/4.1**: Additional feasible and enforceable measures or strategies within the City's purview that could be incorporated in the City's General Plan, Greenhouse Gas Reduction Strategy (and Municipal Code) in the near term include:

**Built Environment and Energy (BEE)**

- *Water Conservation:* Move up target for citywide water consumption reduction. Revise Policy MS-18.5 as shown*:*

  **MS-18.5** Reduce citywide per capita water consumption by 25% by 2030 ~~2040~~ from a baseline established using the 2010 Urban Water Management Plans of water retailers in San José.

This will be enforceable by the City of San José through compliance with state standards, like low flow plumbing fixtures, and participation in rebate or other programs to support replacement of fixtures in the existing built environment.

- *Cool Roofs and Cool Pavements:* Support state efforts related to cool roof standards and in the interim encourage cool roof design in new buildings and roof replacements and installation of cool pavements. Implementation of building code requirements (as updated) and selection of appropriate building materials when replacing existing roofs and pavements are part of this measure. Revise Policy MS-2.6 as follows:

  **MS-2.6:** Promote roofing design and surface treatments that reduce the heat island effect of new and existing development and support reduced energy use, reduced air pollution, and a healthy urban forest. Connect businesses and residents with cool roof rebate programs through City outreach efforts.

This will be enforceable by the City of San José through compliance with California Building Code standards for non-residential buildings, and for new residential buildings and existing buildings as building codes and building

material standards are revised based upon California Energy Commission research. Connecting businesses and residents with cool roof rebate programs (such as those periodically offered by Pacific Gas and Electric) is feasible through the City's participation in joint programs such as *Silicon Valley Energy Watch* (http://www.sanjoseca.gov/index.aspx?NID=1501).

- *Energy Sources for Energy Intensive Industries:* Consider the efficiency of energy production for energy intensive uses as well as facility operational energy efficiency measures. Revise Action MS-2.8 as follows:

  **MS-2.8**: Develop policies which promote energy reduction for energy-intensive industries. For facilities such as data centers, which have high energy demand and indirect greenhouse gas emissions, require evaluation of operational energy efficiency and inclusion of operational design measures as part of development review consistent with benchmarks such as those in EPA's EnergyStar Program for new data centers. Also require consideration of distributed power production for these facilities to reduce energy losses from electricity transmission over long distances and energy production methods such as waste-heat reclamation or the purchase of renewable energy to reduce greenhouse gas emissions.

  This will be enforceable by the City of San José through the development review and permitting process.

- *Energy Sources for Business and Homeowners:* Support and disseminate information to businesses and homeowners regarding the availability of solar power purchasing programs, especially for solar power generated in California.

  **MS-2.9:** Develop, implement, and utilize programs that help businesses and homeowners improve the energy efficiency of new and existing buildings and use of renewable energy sources, such as solar, through on-site generation or purchase of electricity from solar power programs in California.

  Connecting businesses and residents with optional solar power programs (such as proposed to be offered by Pacific Gas and Electric) is feasible through the City's website and the Green Vision program.

**Land Use and Transportation (LUT)**

- *Transportation Demand Measures (TDM) for New Large Employers*: Revise policy to address monitoring and note specific measures. Revise Policy TR-7.1 as shown:

  **TR-7.1** Require large employers to develop and maintain TDM programs to reduce the vehicle trips and vehicle miles generated by their employees through the use of shuttles, provision for car-sharing, bicycle sharing, carpool, parking strategies and other measures.

  This will be enforceable by the City of San José through the development review and permitting process.

- *Community Car or Bike Sharing Programs:* Revise policies to list car-sharing and bicycle sharing as possible measures in TDM programs.

  **TR-7.1** See revisions above.

  **TR-7.2** Update and enhance the existing TDM program for City of San José employees. This program may include the expansion of transit pass subsidies, free shuttle service, preferential carpool parking, ridesharing, flexible work schedules, parking pricing, car-sharing, bicycle sharing, and other measures.

  Implementation of Policy 7.1 will be enforceable by the City of San José through the development review and permitting process. The TDM program for City of San José employees is periodically updated. A bicycle sharing service is currently available at San José City Hall.

  - *Adopt Standards for New Large Multi-family Residential and Large Employers Requiring Electric Charging Infrastructure:* Revise policy on alternative fuel vehicle charging/fueling stations as follows:

    **TR-1.16** Develop a strategy to construct a network of public and private alternative fuel charging/fueling stations city wide. Revise parking standards to require the installation of installation of electric charging infrastructure at new large employment sites and large, multiple family residential developments.

    This will be enforceable by the City of San José through the development review and permitting process.

Achieving the substantial communitywide GHG emissions reductions needed beyond 2020 cannot be done alone with the measures listed above and will require an aggressive multiple-pronged approach that includes policy decisions and additional emission controls at the federal and state level and new and substantially advanced technologies that cannot be anticipated or predicted with any accuracy at this time. It also will require substantial behavioral changes to reduce single occupant vehicle trips, especially to and from work places. Future policy and regulatory decisions by other agencies (such as the California ARB, PUC, California Energy Commission, MTC, and BAAQMD) and technological advances are outside the City's control, and therefore cannot be relied upon as feasible mitigation strategies. Given the uncertainties about the feasibility of achieving the needed 2035 emissions reductions, the City's contribution to greenhouse gas emissions and climate change for the 2035 timeframe is conservatively determined to be cumulatively considerable. **(Significant Unavoidable Cumulative Impact)**

### 4.4.6 Significance Conclusions

#### 4.4.6.1 *2040 General Plan and Greenhouse Gas Reduction Strategy*

The City's estimated 2020 GHG emissions are projected to be below the average carbon-efficiency standard necessary to meet statewide 2020 goals as established by AB 32 and implementation of the 2040 General Plan through 2020 would not constitute a cumulatively considerable contribution to global climate change. **(Less Than Significant Cumulative Impact)**

While the City's proposed Greenhouse Gas Reduction Strategy includes adaptive management measures to incorporate additional GHG reduction measures in the future, there are uncertainties about the feasibility of achieving the sizable emissions reductions needed to meet California's long-term goal of an 80 percent reduction in GHG emissions compared to 1990 levels. The City's projected 2035 GHG emissions, without further substantial reductions, would constitute a cumulatively considerable contribution to global climate change by exceeding the average carbon-efficiency standard necessary to maintain a trajectory to meet statewide 2050 goals as established by Executive Order S-3-05 and remain significant and unavoidable. **(Significant Unavoidable Cumulative Impact)**

Goals, policies and actions in the 2040 General Plan would not would not conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. **(Less Than Significant Cumulative Impact)**

# 5.0 SIGNIFICANT UNAVOIDABLE IMPACTS

A significant unavoidable impact is an impact that cannot be mitigated to a less than significant level if the project is implemented, because no feasible mitigation has been identified.

This Supplemental PEIR reevaluates the identified GHG Emissions resulting from implementation of the 2040 General Plan. As noted below, while projected emissions would be considerably lower than previously predicted, cumulative GHG emissions impacts in 2035 would remain significant.

As disclosed in the 2040 General Plan Final PEIR, while most impacts from the Envision San José 2040 General Plan would be reduced to a less-than-significant level, implementation of the General Plan would result in the following significant and unavoidable impacts:

- **Land Use (Agricultural Resources)**

Build-out under the Envision San José 2040 General Plan would result in impacts to Prime Farmland remaining within the City's UGB.

- **Transportation**

Implementation of the Envision San José 2040 General Plan would have significant transportation impacts, including a significant increase in vehicle miles traveled, significant increased congestion along transit priority corridors and along local and regional screenlines, significantly increased congestion on roadways in surrounding cities and on freeways and expressways.

- **Noise**

New development and redevelopment under the Envision San José 2040 General Plan would result in increased traffic noise, and in some cases, the increases would be substantial.

- **Air Quality**

While the proposed General Plan includes policies that would reduce VMT and emissions from vehicle trips, the projected increase in vehicle miles traveled by 2035, beyond or above the growth in population would be inconsistent with the Clean Air Plan.

- **Biological Resources (Indirect Nitrogen Deposition on Serpentine Habitats)**

New development and redevelopment allowed under the proposed General Plan would result in emissions of nitrogen compounds that could affect the species composition and viability of sensitive serpentine grasslands.

- **Aesthetics**

Build-out of the Communications Hill Specific Plan Area and the North Coyote Valley Area would result in substantial impacts to local scenic views.

- **Population and Housing/Growth Inducement**

Since implementation of the proposed General Plan could induce substantial population growth at other locations by 2035, the impact of developing new housing at distance locations could be significant.

- **Greenhouse Gas Emissions**

Citywide 2035 GHG emissions are projected to exceed efficiency standards necessary to maintain a trajectory to meet long-term 2050 state climate change reduction goals, even with the implementation of identified local actions and statewide actions and regulations adopted to date. Achieving the substantial communitywide GHG emissions reductions needed beyond 2020 cannot be done alone with the measures identified in this Supplemental PEIR and will require an aggressive multiple-pronged approach that includes policy decisions and additional emission controls at the federal and state level and new and substantially advanced technologies that cannot be anticipated or predicted with any accuracy at this time. Given the uncertainties about the feasibility of achieving the substantial 2035 emissions reductions, the City's contribution to climate change for the 2035 timeframe is conservatively determined to be cumulatively considerable.

# 6.0 ALTERNATIVES

## 6.1 INTRODUCTION

CEQA requires that an EIR identify alternatives to a project as it is proposed. The CEQA Guidelines specify that the EIR should identify alternatives that "will feasibly attain most of the basic objectives of the project but will avoid or substantially lessen any of the significant effects of the project." The purpose of this section is to determine whether there are alternatives of design, scope or location that will substantially lessen the significant impacts, even if those alternatives "impede to some degree the attainment of the project objectives," or are more costly. [Section 15126.6(b)]

In order to comply with the purposes of CEQA, it is important to identify alternatives that reduce the significant impacts that are anticipated to occur if the project is implemented and to try to meet as many of the project's objectives as possible. The Guidelines emphasize a common sense approach -- the alternatives should be reasonable, "foster informed decision making and public participation," and must focus on alternatives that avoid or substantially lessen the significant impacts.

The discussion of alternatives shall include enough information to allow a meaningful evaluation and comparison with the project. The CEQA Guidelines state that if an alternative would cause one or more additional impacts, compared to the project, the discussion should identify the additional impact, but in less detail than the significant effects of the proposed project.

The three critical factors to consider in selecting and evaluating alternatives are: (1) the significant impacts from the project which should be reduced or avoided by an alternative; (2) the project's objectives; and (3) the feasibility of the alternatives available. Each of these factors is discussed below.

## 6.2 SIGNIFICANT IMPACTS OF THE 2040 GENERAL PLAN

As mentioned above, the CEQA Guidelines advise that an alternatives analysis in an EIR should be limited to alternatives that would avoid or substantially lessen any of the significant effects of the project and would achieve most of the project objectives. As discussed previously in Section 5.0 in this Supplemental PEIR, implementation of the 2040 General Plan has significant unmitigated or unavoidable impacts associated with loss of prime farmland, transportation, roadway noise, air quality, biological resources (nitrogen deposition on sensitive serpentine habitats), aesthetics, climate change/greenhouse gas emissions in 2035, and growth inducement. Many of the impacts revolve around the direct or indirect effects of automobile travel, characterized as Vehicle Miles Traveled (VMT), which contribute to or cause almost all of the significant unavoidable impacts, including air quality, transportation, roadway noise, nitrogen deposition on sensitive serpentine habitats, and greenhouse gas impacts (2035).

This Supplemental PEIR addresses a reevaluation of the emissions analysis of the Greenhouse Gas Reduction Strategy included as a component of the City's 2040 General Plan. The currently proposed "project" is reconsideration and adoption of the Greenhouse Gas Reduction Strategy as a part of the 2040 General Plan. Therefore, the No Project Alternative is no longer continuation of the

previous 2020 General Plan (Focus on the Future), but implementation of the 2040 General Plan without an integrated Greenhouse Gas Reduction Strategy.

## 6.3 CEQA ALTERNATIVES

Consideration of a "No Project" alternative is mandatory under CEQA. When a project is the revision of an existing land use plan, the "no project" alternative is the continuation of the existing plan into the future [CEQA Guidelines Section 15126.6(a)(3)(A)]. The discussion of "No Project" below is based on continued use of the existing 2040 General Plan, without a qualified Greenhouse Gas Reduction Strategy (GGRS).

### 6.3.1 No Project/2040 General Plan without GGRS

The purpose of this alternative is to identify what development and associated environmental impacts would occur if the City did not adopt the reanalyzed GGRS as a part of its General Plan. This alternative would include:

1. The same development potential and land use and transportation diagram associated with the 2040 General Plan projected through 2035;

2. Individual projects allowed under the General Plan in San José would complete their own program or project-level review of greenhouse gas emissions. Impacts would be assessed based upon appropriate thresholds of significance identified by the City of San José, based on substantial evidence, and mitigation measures, if needed, would be implemented on a project-by-project basis.

3. It is assumed that local programs to improve energy efficiency and reduce GHG emissions, such as alternative fuels for municipal fleets and LED traffic lights, that are part of other City-initiatives would continue. Additional GHG reduction measures, such as adopting trip reduction requirements for TDM Programs citywide or for employment lands, may not occur because they are not required in General Plan policies or called for in other City-initiatives or programs.

#### 6.3.1.1 *Comparison of Environmental Impacts*

**Land Use (Agricultural Resources)**

Impacts to Prime Farmland remaining within the City's UGB would be the same under the No Project Alternative as under the project (2040 General Plan with GGRS) in that the same areas of Prime Farmland within the City limits would be developed.

### Transportation

Like the proposed project, this Alternative would have significant and unavoidable transportation impacts, including impacts to roadways in surrounding cities and regional facilities under the jurisdiction of the County and Caltrans.

Development within the city would be as compact as under the project and the projected ratio of VMT/SP, which is one of several measures of transportation efficiency, is assumed to be the same or similar, at least in the near term. To the extent the City would not be monitoring its progress or utilizing the adaptive management features of a GGRS to incorporate local actions on a communitywide basis as technology or other factors allow, opportunities to reduce VMT or vehicle hours traveled could be limited. Traffic volumes on individual roadways would be the same or similar to the project.

### Noise

New development and redevelopment under the No Project/2040 General Plan without GGRS Alternative would result in increased traffic noise, and in some cases (such as along Santa Teresa Boulevard in the Coyote Planning Area and Zanker Road in North San José), the increases would be substantial. To the extent that vehicle miles traveled would be the same or similar, impacts would not be reduced under this alternative.

### Air Quality

Air quality impacts associated with projected growth would be the same as the project.

### Biological Resources (Indirect Impacts to Sensitive Serpentine Habitats)

Like the project, VMT and associated vehicle emissions (including nitrogen oxide emissions) would increase compared to existing conditions. Indirect impacts to sensitive serpentine habitats may be reduced through implementation of the Valley Habitat Plan, adopted in 2013.

### Aesthetics

Aesthetics impacts from build-out of the Communications Hill Specific Plan Area and the North Coyote Valley Area would result in the same significant impacts to local scenic views as the project.

### Population and Housing/Growth Inducement

Population growth and growth inducement from substantial new employment would be the same as the project.

**Greenhouse Gas Emissions (2035 Long-Term)**

Community 2035 GHG emissions would be the same or similar to those estimated for the project (refer to Table 4.4-8 in *Section 4.4 Greenhouse Gas Emissions and Global Climate Change*)

Relying on individual greenhouse gas analyses for environmental review of GHG emissions could have several effects on development intensity and project design, however. For smaller projects, some local measures (such as those in the GGRS) may not be applied for projects with estimated GHG emissions below project-level thresholds of significance. In addition, developers may choose to develop smaller or less intense projects to avoid the cost of some mitigation measures (such as on-site renewable energy systems or trip reduction measures). If these patterns emerged, GHG emissions per service population could be incrementally higher than the project (i.e., 2040 General Plan with the GGRS) over time.

**Other Impacts**

Greenhouse Gas Emissions (2020 Mid-term)

Overall greenhouse gas emissions in 2020 would be the same or similar to the project and would not exceed the State goal of 6.6 MT $CO_2e$/SP/year.

***Conclusion:*** In summary, the No Project/2040General Plan without GGRS Alternative would result in the similar impacts as the project. GHG emissions per service population in the long-term could be incrementally higher than the project due to GGRS measures not being applied to smaller projects citywide. This Alternative would not be environmentally superior to the proposed project.

#### 6.3.1.2 *Feasibility of the No Project/Retain Existing General Plan Alternative*

The No Project/2040General Plan without GGRS Alternative would conflict with General Plan and Green Vision goals related to GHG reduction. Ultimately, this alternative would be infeasible because of the need for an internally consistent General Plan under State Law (California Government Code 65300.5).

#### 6.3.1.3 *Relationship to Project Goals and Objectives*

The No Project/2040General Plan without GGRS Alternative would not fully meet the basic project objective of the City of San José to integrate and advance the City's Green Vision, including community sustainability indicators, using the General Plan as the basis for the City's Greenhouse Gas Reduction Strategy (Objective #15).

### 6.3.2 Other Development Scenarios Addressed in the 2040 General Plan PEIR

Section 8.5 of the 2040 General Plan PEIR included an analysis of five alternative levels of development (Scenarios 1-5).[50] Scenario 1, the Low Growth Alternative, was found to be the environmentally superior alternative.[51] A summary of the assumptions for these alternatives and a comparison of the environmental effects follow.

Because VMT is associated with or is a contributing source to almost all of the significant unavoidable impacts, other logical CEQA alternatives identified previously in the 2040 General Plan PEIR are those that would limit the increase in VMT, such as a different mix of land uses, total growth (how much of all kinds of growth will occur), and a more balanced ratio of jobs to employed residents. When using VMT to evaluate potential environmental impacts it is important to also consider travel speed and congestion levels, which also significantly contribute to traffic-related impacts.

As shown in Table 6.3-1, the alternative scenarios are defined by two primary growth variables; the number of new dwelling units and the number of new jobs. In combination with existing development that would remain, each scenario is also defined by a jobs-housing balance, presented as a ratio of jobs per employed resident (J/ER). The distribution of new dwelling units and jobs throughout the City was similar for all scenarios with a focus on identified growth areas (vacant or underutilized parcels with the potential for infill or redevelopment) located in proximity to transit and other infrastructure within the City's Urban Growth Boundary. The basic differences in housing and jobs growth between the alternative scenarios are summarized in Table 6.3-2.

As shown in Table 6.3-1, VMT and VMT/Service Population (SP) vary between the 2040 General Plan project and several of the alternative scenarios (1, 2, 3, 4, and 5); however, the magnitude of these differences is not large (less than 5 percent difference in VMT/SP by scenario). Because population growth is by far the greatest factor in determining VMT, using VMT/SP is a better index of land uses. Also, because of similarities, each of the alternatives performs well in certain aspects of performance, and may perform better for one factor and not as well for another. For example, Scenario 4 has both the highest (worst) VMT and highest VMT/SP except for the No Project alternative, while it also has the highest transit ridership and the best mode split in terms of use of transit, biking and walking and reduced vehicle use.

[50] City of San José. 2011. *Envision San José 2040 General Plan Integrated Final Program EIR.* Section 8.5 Selection of CEQA Alternatives, p.880-906.
[51] Ibid., Section 8.6 Comparison of Alternatives, p. 907-908.

**Table 6.3-1**
**Land Use Summaries of General Plan Scenarios**

| Category | 2008 Baseline Conditions | 2035 Conditions | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Project: 2040 General Plan with GGRS | No Project/ 2040 GP without GGRS | Scenario 1 Low Growth | Scenario 2 More Housing/ Fewer Jobs | Scenario 3 ABAG Assumptions | Scenario 4 More Jobs/Less Housing | Scenario 5 Slightly More Housing/ Less Jobs |
| ***Housing, Population, Jobs, and VMT*** | | | | | | | | |
| Dwelling Units | 309,350 | 429,350 | 429,350 | 398,000 | 445,000 | 468,320 | 398,000 | 445,000 |
| Population | 985,307 | 1,313,811 | 1,313,811 | 1,217,880 | 1,361,700 | 1,433,059 | 1,217,880 | 1,361,700 |
| Employment | 369,450 | 839,450 | 839,450 | 716,000 | 730,000 | 708,980 | 895,500 | 801,000 |
| Service Population | 1,354,757 | 2,153,261 | 2,153,261 | 1,947,880 | 2,091,700 | 2,142,039 | 2,113,380 | 2,162,700 |
| VMT | 19,806,977 | 34,852,957 | 34,852,957 | 31,733,000 | 33,298,000 | 33,687,000 | 35,050,000 | 34,687,000 |
| ***Ratios*** | | | | | | | | |
| VMT/capita | 20.1 | 26.5 | 26.5 | 26.1 | 24.4 | 23.5 | 28.8 | 25.5 |
| VMT/SP | 14.6 | 16.2 | 16.2 | 16.3 | 15.9 | 15.7 | 16.6 | 16.0 |
| Jobs/Employed Resident | **0.8** | **1.3** | **1.3** | **1.2** | **1.1** | **1.0** | **1.5** | **1.2** |

Source: City of San José, 2010.
Refer to Appendix E for land use assumptions including projected jobs and population.

**Table 6.3-2**
**General Plan Alternatives Overview**

| CEQA Alternative | Type of Alternative | | | | | |
|---|---|---|---|---|---|---|
| | No Project | Less Growth | Housing | | Jobs/Housing Ratio 1:1 | Reduced Jobs |
| | | | More | Less | | |
| No Project/2040 General Plan without GGRS | X | | | | | |
| Scenario 1: Low Growth | | X | | X | | X |
| Scenario 2: More Housing/Fewer Jobs | | | X | | | X |
| Scenario 3: ABAG Projections | | | X | | X | X |
| Scenario 4: More Jobs/Less Housing | | | | X | | |
| Scenario 5: Slightly More Housing/Less Jobs | | | X | | | X |

The feasibility of each scenario and its relationship to project goals and objectives are described in Section 8.5 of the 2040 General Plan PEIR. None of the scenarios listed above were considered infeasible, although Scenarios 4 and 5 assume higher rates of development (new jobs, housing or both) than has been sustained in the City of San José the past. All of the five scenarios met some or all of the basic project objectives.[52]

### 6.3.3 Alternatives Considered But Rejected

Key objectives of the project are for the city to become more of a regional job center, to increase utilization of regional transportation systems, and to support the City's fiscal health. Given the ongoing problems with providing services to a community that has had far more housing than jobs for decades and in conformance with General Plan objectives for fiscal sustainability, scenarios which would allow job and housing growth corresponding to a J/ER ratio of less than 1.0 would not meet the basic objectives of the project and were not considered as part of the 2040 General Plan process.

An alternative which would accelerate implementation of parking strategies, such as reducing on-site parking and/or charging employees and customers for parking, to the first tier of implementation of the 2040 General Plan was considered and rejected. While it has been shown that such strategies can be highly effective in reducing congestion and motor vehicle trips at prime locations (such as attractive commercial areas and institutions), implementation of these strategies by the City of San José alone within the South Bay Area would put the city at a substantial disadvantage in attracting industrial and commercial employers in the near term. While local employers have commonly

[52] Ibid., pages 893-894, 897, 900, 903, 906.

implemented TDM programs, especially in North San José and most of the high tech areas of Silicon Valley, measures such as parking cash out or reducing on-site parking have not been used because of challenges with construction financing and/or corporate "exit strategies". As an acceleration of parking strategy implementation would not be consistent with several of the basic objectives of the project (e.g., increasing the J/ER ratio for fiscal sustainability in the near term of the Plan), this alternative is not addressed further. Current long-term traffic modeling methods also do not readily accommodate the analysis of the effects of such policies. Although not considered further as a CEQA alternative, the City recognizes that parking strategies and similar pricing measures are likely to be important tools for reducing motor vehicle travel in the future, especially as part of regional planning implementation efforts.

## 6.4 COMPARISON OF ALTERNATIVES

A comparison of alternatives based upon whether they avoid or substantially lessen any of the significant environmental effects of the project is provided in Table 6.4-1.

**Table 6.4-1**
**Comparison of Impacts from Alternatives to the 2040 General Plan with GGRS Project**

| Significant Impacts of the Proposed General Plan | Level of Impact | | | | | |
|---|---|---|---|---|---|---|
| | **No Project**[1] | **Scenario 1** Low Growth | **Scenario 2** More Housing/ Fewer Jobs | **Scenario 3** ABAG Projections | **Scenario 4** More Jobs/Less Housing | **Scenario 5** Slightly More Housing/ Less Jobs |
| Land Use (Agricultural Resources) | Same | Same | Same | Same | Same | Same |
| Transportation | Same | Less | Less | Same | More | Same |
| Noise | Same | Less | Same | Same | More | Same |
| Air Quality | Same | Less | Less | Same | More | Same |
| Biological Resources (Indirect Impacts) | Same | Less | Less | Less | More | Same |
| Aesthetics | Same | N. Coyote: Same Comm. Hill: Slightly More | N. Coyote: Same Comm. Hill: Slightly More | N. Coyote: Same Comm. Hill: Slightly More | N. Coyote: Same Comm. Hill: Slightly More | N. Coyote: Same Comm. Hill: Slightly More |
| Population & Housing/ Growth Inducement | Same | Less | Less | LTS | More | Same |
| Greenhouse Gas Emissions (2035 Goal) | Same/ More[2] | Less | Less | Less | More | Less |

[1]Existing 2040 General Plan without a GGRS through 2035.
[2]Projected total emissions considering statewide measures would be roughly the same, although emission reductions from local GGRS could be incrementally reduced where less while the emissions per service population would increase.
LTS: Less Than Significant Impact
Less = Substantial impact reduction compared to the 2040 General Plan project, but not to a less than significant level.
More = Substantially greater impact than 2040 General Plan project.

### 6.4.1 Environmentally Superior Alternative(s)

The CEQA Guidelines specify that an EIR must identify the environmentally superior alternative among those alternatives discussed. If the environmentally superior alternative is the "No Project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. [Section 15126.6(e)(2)]

The No Project Alternative (2040 General Plan without GGRS) is not environmentally superior to the project.

The 2040 General Plan PEIR identified the Scenario 1 Alternative as environmentally superior alternative to the 2040 General Plan because it provides for a lower amount of total growth capacity, which in turn would produce lesser amounts of vehicle traffic (VMT) and lesser air quality impacts. The Scenario 1 Alternative overall is environmentally superior since transportation, noise, air quality, biological resources (indirect effects), and GHG emissions in 2035 impacts would be reduced, although not to a less than significant level. The conclusion in the 2040 General Plan PEIR regarding the Scenario 1 Alternative have not changed based upon the supplemental information on greenhouse house emissions presented in this Supplemental PEIR.

*This page intentionally left blank*

# 7.0 REFERENCES


AECOM. 2015. *San José Emissions Memo.*

Association of Bay Area Governments. *Plan Bay Area Projections 2013.*

Bay Area Air Quality Management District (BAAQMD). *CEQA Air Quality Guidelines. May 2011.*

BAAQMD. 2010. *Source Inventory of Bay Area Greenhouse Gas Emissions.*

BAAQMD. 2015. *Bay Area Emissions Inventory Summary Report: Greenhouse Gases Base Year 2011.* Available at: <http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/Emission%20Inventory/BY2011_GHGSummary.ashx?la=en>

State of California, Department of Finance, *E-4 Population Estimates for Cities, Counties, and the State, 2011-2015, with 2010 Census Benchmark.* Sacramento, California, May 2015. Available at: <http://www.dof.ca.gov/research/demographic/reports/estimates/e-4/2011-20/view.php>

California Air Resources Board (CARB). 2008. *Climate Change Scoping Plan.*

CARB. *Trends in California Greenhouse Gas Emissions for 2000 to 2008 – by Category as Defined in the Scoping Plan.* May 9, 2010. Available at: http://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2008/ghg_inventory_trends_00-08_2010-05-12.pdf.

CARB. California Greenhouse Gas Inventory Greenhouse Gas Inventory Data - 2000 to 2012. Available at: < http://www.arb.ca.gov/cc/inventory/data/data.htm>.

California Air Resources Board. 2014. California Greenhouse Gas Inventory for 2000-2012 Technical Support Document. Available at: < http://www.arb.ca http://www.arb.ca.gov/cc/inventory/pubs/reports/ghg_inventory_00-12_report.pdf>.

CARB. 2014. *First Update to the Climate Change Scoping Plan.*

California Climate Change Center. 2012. *Our Changing Climate: 2012 Vulnerability & Adaptation to the Increasing Risks from Climate Change in California A Summary Report on the Third Assessment.* July 2012 / CEC-500-2012-007.

California Employment Development Department. "Labor Force and Unemployment Rate for Cities and Census Designated Places". Accessed June 17, 2015. Available at: <http://www.labormarketinfo.edd.ca.gov/CES/Labor_Force_Unemployment_Data_for_Cities_and_Census_Areas.html#About>

California Energy Commission. "Energy Commission Approves More Efficient Buildings for California's Future". Accessed: May 9, 2015. Available at: <http://www.energy.ca.gov/releases/2012_releases/2012-05-31_energy_commission_approves_mo re_efficient_buildings_nr.html>

California Energy Commission. "Comprehensive Energy Efficiency Program for Existing Buildings". Accessed August 19, 2015. Available at: <http://www.energy.ca.gov/ab758/>

California Energy Commission. 2013 Building Energy Efficiency Standards for Residential and Nonresidential Buildings. May 2012. (CEC-400-2012-004-CMF-REV2). Abstract page. Available at: http://www.energy.ca.gov/title24/2013standards/index.html>

California Environmental Protection Agency. 2010. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*.

California Department of Transportation (Caltrans). 2013. *Caltrans Activities to Address Climate Change Reducing Greenhouse Gas Emissions and Adapting to Impacts.* April 2013.

Caltrans. 2013. *California Transportation Plan 2040 Fact Sheet.* November 2013.

Caltrans and Solano Transportation Authority. 2015. *I-80 Express Lanes Project, Solano County, Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment.* (Chapter 2.5), p. 2.5-8, 2.5-9. Available at: <http://www.dot.ca.gov/dist4/documents/80expresslanesproject/2.5_CEQA_Climate_Change.pdf>

City of Cupertino. 2014. *Climate Action Plan.*

City of Milpitas. 2013. *Climate Action Plan, A Qualified Greenhouse Gas Reduction Strategy*. Adopted May 7, 2013.

City of Mountain View. 2012. *Greenhouse Gas Reduction Program.*

City of Santa Clara. 2013. *Climate Action Plan.* Adopted December 3, 2013.

City of San José. 2012. *Vacant Land Inventory.* Available at: <http://www.sanjoseca.gov/DocumentCenter/View/792 >.

City of San José. 2013. *Envision San José 2040 General Plan Annual Performance Review*. October 9, 2013. Available at: <http://www.sanjoseca.gov/DocumentCenter/View/23424>.

City of San José. 2015. *Green Vision 2014 Annual Report.* Available at: <http://www.sanjoseca.gov/index.aspx?NID=2839>

City of San José. 2015. *Development Activity Highlights and Five-Year Forecast (2016-2020).* February 2015. Available at: < http://www.sanjoseca.gov/index.aspx?nid=2050>

City of San José. 2015. *Status Report on General Plan and Urban Village Implementation*. Community and Economic Development Committee Memorandum. April 16, 2015.

City of San José. 2015. "Silicon Valley Energy Watch". Accessed August 19, 2015. Available at: <http://www.sanjoseca.gov/index.aspx?NID=1501>

City of Sunnyvale. 2014. *Climate Action Plan*. Adopted May 14, 2014.

IPCC. 2013. *Summary for Policymakers. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

IPCC, 2014: *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp.

IPCC. 2014. *Climate Change 2014 Synthesis Report Summary for Policy Makers.* National Oceanic and Atmospheric Administration (NOAA) and the American Association for the Advancement of Science (AAAS). *Climate Literacy: The Essential Principles of Climate Sciences*. 2009.

Statewide Energy Efficiency Collaborative. *Local Government Energy Efficiency Best Practices: San José Energy Fund.* Available at: <http://californiaseec.org/tools-guidance/best-practices>

Transportation Research Board of the National Academies. 2010. *Climate Change Curbing Transportation Contributions.* TR News, May-June 2010. Number 268.

Valley Transportation Authority. "101 Express Lanes". Accessed August 3, 2015. Available at: <http://www.vta.org/projects-and-programs/highway/us-101-express-lanes>.

Valley Transportation Authority. Fact Sheet: Express Lanes, State Route 237 Express Lanes Project. Accessed August 3, 2015. Available at: <http://www.vta.org/sfc/servlet.shepherd/document/download/069A0000001FiofIAC>

U.S. Census Bureau. American Community Survey.

U.S. EPA. "Greenhouse Gases". Accessed May 8, 2015. Available at: <http://www.epa.gov/climate/climatechange/science/indicators/ghg/index.html>

*This page intentionally left blank*

# 8.0 LIST OF PREPARERS

**Lead Agency:**

**City of San José**

*Department of Planning, Building, and Code Enforcement*
Harry Freitas, Director
Jason Rogers, Division Manager
Meenaxi Panakkal, Supervising Planner
David Keyon, Planner II

*City Attorney's Office*
Sandra Lee, Senior Deputy City Attorney

**Consultants:**

**David J. Powers & Associates, Inc.**
*Environmental Consultants and Planners*
Nora Monette, Principal Project Manager
Akoni Danielsen, Principal Project Manager
Zach Dill, Graphic Artist

**AECOM, Inc.**
Jeff Goldman, Principal
Joshua Lathan, Associate, Urban Planner/Designer
George Lu, Associate, Air Quality and Greenhouse Gas Analyst