

## 5. Environmental Analysis

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### 5.2 GREENHOUSE GAS EMISSIONS

This section of the Draft Supplemental Environmental Impact Report (DSEIR) evaluates the potential greenhouse gas (GHG) emissions impacts of the City of Anaheim Housing Opportunity Sites Rezoning Project (“Proposed Project”) to the impacts of the 2004 Anaheim General Plan and Zoning Code Update (“2004 Approved Project”). The 2004 Certified EIR did not evaluate GHG emissions impacts because this was not included in the CEQA Guidelines Appendix G checklist and the City of Anaheim (“City”) did not have adopted thresholds at the time of preparation.

In the interest of carrying out CEQA’s mandate to promote informed decision-making, this DSEIR will provide the most current scientific data on GHG emission. The analysis in this section is based on buildout of the Proposed Project; vehicle miles traveled (VMT), provided by the traffic consultant, Iteris, as modeled using the Anaheim Transportation Analysis Model (ATAM) for trips (origin-destination method) (see Appendix F to this DSEIR); electricity use provided by the Anaheim Utilities Department, natural gas use provided by the Southern California Gas Company (SoCalGas), waste generation identified for the City by the California Department of Resources Recycling and Recovery (CalRecycle), and water use for the City based on the Anaheim Utilities Department 2010 Urban Water Management Plan (UWMP). The GHG model output sheets are included in Appendix C of this DSEIR.

#### 5.2.1 Environmental Setting

##### Greenhouse Gases and Climate Change

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHGs, to the atmosphere. The primary source of these GHGs is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs—water vapor, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and ozone (O<sub>3</sub>)—that are the likely cause of an increase in global average temperatures observed in the 20th and 21st centuries. Other GHGs identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>), chlorofluorocarbons, perfluorocarbons, hydrochlorofluorocarbons, and hydrofluorocarbons (IPCC 2001). The major GHGs are briefly described below. Table 5.2-1 lists the GHGs applicable to the proposed project and their relative global warming potentials (GWP) compared to CO<sub>2</sub>.

**Water vapor (H<sub>2</sub>O)** is the strongest contributor to GHG as it has the highest contribution to the greenhouse effect and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant.

**Carbon dioxide (CO<sub>2</sub>)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.

**Methane (CH<sub>4</sub>)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.

**Nitrous oxide (N<sub>2</sub>O)** is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.

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**Sulfur Hexafluoride (SF<sub>6</sub>)** is a colorless gas soluble in alcohol and ether and slightly soluble in water. SF<sub>6</sub> is a strong GHG used primarily in electrical transmission and distribution systems as an insulator.

**Fluorinated gases** are synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes substituted for O<sub>3</sub>-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as high-GWP gases.

**Chlorofluorocarbons (CFCs)** are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (troposphere, stratosphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down ozone. These gases are also ozone-depleting gases and are therefore being replaced by other compounds that are GHGs covered under the Kyoto Protocol.

**Perfluorocarbons (PFCs)** are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF<sub>4</sub>] and perfluoroethane [C<sub>2</sub>F<sub>6</sub>]) were introduced as alternatives, along with HFCs, to O<sub>3</sub>-depleting substances. In addition, PFCs are emitted as by-products of industrial processes and are used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high global warming potential.

Table 5.2-1  
Greenhouse Gases and Their Relative Global Warming Potential  
Compared to CO<sub>2</sub>

GHG	Atmospheric Lifetime (years)	Global Warming Potential Relative to CO <sub>2</sub> <sup>1</sup>
Carbon Dioxide (CO <sub>2</sub> )	50 to 200	1
Methane (CH <sub>4</sub> ) <sup>2</sup>	12 (±3)	21
Nitrous Oxide (N <sub>2</sub> O)	120	310
Hydrofluorocarbons:		
HFC-23	264	11,700
HFC-32	5.6	650
HFC-125	32.6	2,800
HFC-134a	14.6	1,300
HFC-143a	48.3	3,800
HFC-152a	1.5	140
HFC-227ea	36.5	2,900
HFC-236fa	209	6,300
HFC-4310mee	17.1	1,300
Perfluoromethane: CF <sub>4</sub>	50,000	6,500
Perfluoroethane: C <sub>2</sub> F <sub>6</sub>	10,000	9,200
Perfluorobutane: C <sub>4</sub> F <sub>10</sub>	2,600	7,000
Perfluoro-2-methylpentane: C <sub>6</sub> F <sub>14</sub>	3,200	7,400
Sulfur Hexafluoride (SF <sub>6</sub> )	3,200	23,900

Source: IPCC 2001.

<sup>1</sup> Based on 100 year time horizon of the GWP of the air pollutant relative to CO<sub>2</sub>.

<sup>2</sup> The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO<sub>2</sub> is not included.

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**Hydrochlorofluorocarbons (HCFCs)** contain hydrogen, fluorine, chlorine, and carbon atoms. Although ozone-depleting substances, they are less potent at destroying stratospheric ozone than CFCs. They have been introduced as temporary replacements for CFCs and are also GHGs.

**Hydrofluorocarbons (HFCs)** contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances to serve many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs (IPCC 2001; IPCC 2007; EPA 2012).

#### *California's Greenhouse Gas Sources and Relative Contribution*

California is the second largest emitter of GHG in the United States, only surpassed by Texas, and the 10<sup>th</sup> largest GHG emitter in the world. However, California also has over 12 million more people than the state of Texas. Due to more stringent air emission regulations, in 2001, California ranked fourth lowest in carbon emissions per capita and fifth lowest among states in CO<sub>2</sub> emissions from fossil fuel consumption per unit of Gross State Product (total economic output of goods and services) (IPCC 2007).

CARB's latest update to the statewide GHG emissions inventory was conducted in 2012 for year 2009 emissions.<sup>1</sup> In 2009, California produced 457 million metric tons (MMT) of CO<sub>2</sub>-equivalent (CO<sub>2</sub>e) GHG emissions. California's transportation sector is the single largest generator of GHG emissions, producing 37.9 percent of the state's total emissions. Electricity consumption is the second largest source, comprising 22.7 percent. Industrial activities are California's third largest source of GHG emissions, comprising 17.8 percent of the state's total emissions. Other major sectors of GHG emissions include commercial and residential, recycling and waste, high global warming potential GHGs, agriculture, and forestry (CARB 2012).<sup>2</sup>

#### *Human Influence on Climate Change*

For approximately 1,000 years before the Industrial Revolution, the amount of GHG in the atmosphere remained relatively constant. During the 20th century, however, scientists observed a rapid change in the climate and climate change pollutants that are attributable to human activities. The amount of CO<sub>2</sub> has increased by more than 35 percent since preindustrial times and has increased at an average rate of 1.4 parts per million (ppm) per year since 1960, mainly due to combustion of fossil fuels and deforestation (IPCC 2007). These recent changes in climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is warming at a rate that cannot be explained by natural causes alone. Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants (CAT 2006).

Climate-change scenarios are affected by varying degrees of uncertainty. IPCC's 2007 IPCC Fourth Assessment Report projects that the global mean temperature increase from 1990 to 2100, under different climate-change scenarios, will range from 1.4°C to 5.8°C (2.5°F to 10.4°F). In the past, gradual changes

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<sup>1</sup> Methodology for determining the statewide GHG inventory is not the same as the methodology used to determine statewide GHG emissions under AB 32 (2006).

<sup>2</sup> CO<sub>2</sub>e is used to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. The global warming potential of a GHG is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.

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in the Earth's temperature changed the distribution of species, availability of water, etc. However, human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic timeframe but within a human lifetime (IPCC 2007).

#### *Potential Climate Change Impacts for California*

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the Earth's temperature are also hard to predict. In California and western North America, observations of the climate have shown: 1) a trend toward warmer winter and spring temperatures, 2) a smaller fraction of precipitation falling as snow, 3) a decrease in the amount of spring snow accumulation in the lower and middle elevation mountain zones, 4) an advance snowmelt of five to 30 days earlier in the springs, and 5) a similar shift (five to 30 days earlier) in the timing of spring flower blooms (CAT 2006). According to the California Climate Action Team (CAT), even if actions could be taken to immediately curtail climate change emissions, the potency of emissions that have already built up, their long atmospheric lifetimes (see Table 5.2-1), and the inertia of the Earth's climate system could produce as much as 0.6°C (1.1°F) of additional warming. Consequently, some impacts from climate change are now considered unavoidable. Global climate change risks to California are shown in Table 5.2-2 and include public health impacts, water resources impacts, agricultural impacts, coastal sea level impacts, forest and biological resource impacts, and energy impacts. Specific climate change impacts that could affect the project include health impacts from a reduction in air quality, water resources impacts from a reduction in water supply, and increased energy demand.

#### Regulatory Setting

##### *Federal Laws and Regulations*

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

The EPA's endangerment finding covers emissions of six key GHGs—CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, hydrofluorocarbons, perfluorocarbons, and SF<sub>6</sub>—that have been the subject of scrutiny and intense analysis for decades by scientists in the U.S. and around the world (the first three are applicable to the Proposed Project).

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report their emissions data. Facilities that emit 25,000 metric tons (MT) or more of CO<sub>2</sub> per year are required to submit an annual report.

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Table 5.2-2  
Summary of GHG Emission Risks to California

<i>Impact Category</i>	<i>Potential Risk</i>
Public Health	Poor air quality made worse More severe heat
Water Resources	Decreasing Sierra Nevada snow pack Challenges in securing adequate water supply Potential reduction in hydropower Loss of winter recreation
Agricultural	Increasing temperature Increasing threats from pests and pathogens Expanded ranges of agricultural weeds Declining productivity Irregular blooms and harvests
Coastal Sea Level	Accelerated sea level rise Increasing coastal floods Shrinking beaches Worsened impacts on infrastructure
Forest and Biological Resource	Increased risk and severity of wildfires Lengthening of the wildfire season Movement of forest areas Conversion of forest to grassland Declining forest productivity Increasing threats from pest and pathogens Shifting vegetation and species distribution Altered timing of migration and mating habits Loss of sensitive or slow-moving species
Energy Demand	Potential reduction in hydropower Increased energy demand

Sources: CEC 2006, CEC 2008.

### *State Regulations*

Current State guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-03-05, AB 32, and Senate Bill (SB) 375, along with numerous other policy documents listed below.

#### *Executive Order S-03-05*

Executive Order S-3-05, signed June 1, 2005, set the following GHG emissions reduction targets for the state:

- Reduce GHG emissions totals to year 2000 levels by year 2010;
- Reduce GHG emissions totals to year 1990 levels by year 2020; and
- Reduce GHG emissions totals to 80 percent below year 1990 levels by year 2050.

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#### *Assembly Bill 32, the Global Warming Solutions Act (2006)*

Current State guidance and goals for reductions in GHG emissions are generally embodied in AB 32, the Global Warming Solutions Act. AB 32 was passed by the State legislature on August 31, 2006, to place the State on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-3-05.

AB 32 directed CARB to adopt discrete early action measures to reduce GHG emissions and outline additional reduction measures to meet the 2020 target. Based on the GHG emissions inventory conducted for the Scoping Plan by CARB, GHG emissions in California by 2020 are anticipated to be approximately 596 million metric tons CO<sub>2</sub>e (MMTCo<sub>2</sub>e). In December 2007, CARB approved a 2020 emissions limit of 427 MMTCo<sub>2</sub>e (471 million tons) for the State. The 2020 target requires a total emissions reduction of 169 MMTCo<sub>2</sub>e, 28.5 percent from the projected emissions of the business-as-usual (BAU) scenario for the year 2020 (i.e., 28.5 percent of 596 MMTCo<sub>2</sub>e) (CARB 2008).<sup>3</sup>

In order to effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary sources that generate more than 25,000 MT of CO<sub>2</sub>e per year, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012. The Climate Action Registry Reporting Online Tool was established through the Climate Action Registry to track GHG emissions.

#### *Senate Bill 375*

In 2008, SB 375 was adopted and was intended to represent the implementation mechanism necessary to achieve the GHG emissions reductions targets established in CARB's 2008 Scoping Plan (described below) for the transportation sector as it relates to local land use decisions that affect travel behavior. Implementation is intended to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations with local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 requires CARB to establish GHG emissions reduction targets for each of the 17 regions in California managed by a metropolitan planning organization (MPO). Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target.

Southern California Association of Governments (SCAG) is the MPO for the southern California region, which includes the counties of Los Angeles, Orange, San Bernardino County, Riverside, Ventura, and Imperial. SCAG's targets are an eight percent per capita reduction from 2005 GHG emission levels by year 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by year 2035. The 2020 targets are smaller than the 2035 targets because a significant portion of the built environment in 2020 has been defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region's existing transportation network. The proposed targets would result in three MMTCo<sub>2</sub>e of GHG reductions by 2020 and 15

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<sup>3</sup> CARB defines BAU in its 2008 Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-generating sector were compiled and used to estimate emissions for 2020 based on 2002–2004 emissions intensities. Under CARB's definition of BAU, new growth is assumed to have the same carbon intensities as was typical from 2002 through 2004.

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MMTCO<sub>2</sub>e of GHG reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's Scoping Plan (for AB 32) would be met (CARB 2010).

SB 375 requires the MPOs to prepare a Sustainable Communities Strategy (SCS) in their regional transportation plan (RTP). For the SCAG region, the 2012 RTP/SCS was adopted in April 2012 (SCAG 2012). The 2012 RTP/SCS integrates the Orange County SCS, which was adopted separately by the Orange County Council of Governments (OCCOG) and the Orange County Transportation Authority (OCTA) in 2011 ("Orange County SCS"). The SCS sets forth a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement). The Orange County SCS is meant to provide growth strategies that will achieve the regional GHG emissions reduction targets. However, the Orange County SCS does not require that local general plans, specific plans, or zoning be consistent with the Orange County SCS, but provides incentives for consistency for governments and developers.

#### *CARB 2008 Scoping Plan*

The final Scoping Plan was adopted by CARB on December 11, 2008. Key elements of CARB's GHG reduction plan include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards (adopted and cycle updates in progress).
- Achieving a mix of 33 percent for energy generation from renewable sources (anticipated by 2020).
- A California cap-and-trade program that links with other Western Climate Initiative (WCI) partner programs to create a regional market system for large stationary sources (adopted 2011).
- Establishing targets for transportation-related GHG emissions for regions throughout the State, and pursuing policies and incentives to achieve those targets (several Sustainable Communities Strategies have been adopted).
- Adopting and implementing measures pursuant to state laws and policies, including California's clean car standards (amendments to the Pavley Standards adopted 2009; Advanced Clean Car standard adopted 2012), goods movement measures, and the Low Carbon Fuel Standard (LCFS) (adopted 2009).
- Creating target 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 (in progress).

While local government operations were not accounted for in achieving the 2020 emissions reduction, CARB estimates that land use changes implemented by local governments that integrate jobs, housing, and services result in a reduction of five MMTCO<sub>2</sub>e, which is approximately three percent of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments play in the successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of today's levels by year 2020 to ensure that municipal and community-wide emissions match the state's reduction target.

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Measures that local governments take to support shifts in land use patterns are anticipated to emphasize compact, low-impact growth over development in greenfields, resulting in fewer VMT (CARB 2008).

A list of the measures included in the 2008 Scoping Plan and the emissions reductions estimates are included in Table 5.2-3.

*Table 5.2-3  
CARB Scoping Plan Greenhouse Gas Reduction Measures and  
Reductions Toward 2020 Target*

<i>Recommended Reduction Measures</i>	<i>Reductions Counted toward 2020 Target of 169 MMT CO<sub>2</sub>e</i>	<i>Percentage of Statewide 2020 Target</i>
<b>Cap and Trade Program and Associated Measures</b>		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets <sup>1</sup>	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
<b>Total Cap and Trade Program Reductions</b>	<b>146.7</b>	<b>87%</b>
<b>Uncapped Sources/Sectors Measures</b>		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
<b>Total Uncapped Sources/Sectors Reductions</b>	<b>27.3</b>	<b>16%</b>
<b>Total Reductions Counted Towards 2020 Target</b>	<b>174</b>	<b>100%</b>
<b>Other Recommended Measures – Not Counted Towards 2020 Target</b>		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
<b>Total Other Recommended Measures – Not Counted Towards 2020 Target</b>	<b>42.8</b>	<b>NA</b>

Source: CARB 2008.

Notes: The percentages in the right-hand column add up to more than 100 percent because the emissions reduction goal is 169 MMTCO<sub>2</sub>e and the 2008 Scoping Plan identifies 174 MMTCO<sub>2</sub>e of emissions reductions strategies.

MMTCO<sub>2</sub>e: million metric tons of CO<sub>2</sub>e

<sup>1</sup> Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.

<sup>2</sup> According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately two percent through land use planning, resulting in a potential GHG reduction of two MMTCO<sub>2</sub>e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the 2008 Scoping Plan reductions to achieve the 2020 target.

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#### *Assembly Bill 1493*

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I Standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 light-duty vehicles.

#### *Executive Order S-01-07*

On January 18, 2007, the State set a new LCFS for transportation fuels sold within the state. Executive Order S-1-07 sets a declining standard for GHG emissions measured in CO<sub>2</sub>e grams per unit of fuel energy sold in California. The LCFS requires a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The LCFS applies to refiners, blenders, producers, and importers of transportation fuels and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the fuel cycle using the most economically feasible methods.

#### *Senate Bills 1078 and 107, and Executive Order S-14-08*

A major component of California's Renewable Energy Program is the renewable portfolio standard (RPS) established under SB 1078 (Sher) and SB 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least one percent in order to reach at least 20 percent by December 30, 2010. Executive Order S-14-08 was signed in November 2008, which expands the state's renewable energy standard to 33 percent renewable power by 2020. In 2011, the State legislature adopted this higher standard in SB X1-2. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects, because electricity production from renewable sources is generally considered carbon neutral.

#### *California Building Code*

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission in June 1977 and updated triannually (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On May 31, 2012, the California Energy Commission (CEC) adopted the 2013 Building and Energy Efficiency Standards, which go into effect on January 1, 2014. Buildings that are constructed in accordance with the 2013 Building and Energy Efficiency Standards are 25 percent (residential) to 30 percent (nonresidential) more energy efficient than the 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses.

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (CALGreen) was adopted as part of the California Building Standards Code (Title 24, Part 11, of the CCR). CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The mandatory provisions of CALGreen became effective January 1, 2011.

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#### *2006 Appliance Efficiency Regulations*

The 2006 Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both Federally regulated appliances and nonfederally regulated appliances.

#### *City of Anaheim Goals and Policies*

The City's General Plan includes the following policies related to reducing communitywide GHG emissions:

- Support the efforts of regional, State and Federal agencies to provide additional local and express bus service in the City. (Circulation Element, Goal 5.1, Policy 1)
- Support transit supportive land uses and in new development. (Circulation Element, Goal 5.1, Policy 3)
- Intensify land uses in close proximity to future bus BRT stop(s) where appropriate. (Circulation Element, Goal 5.1, Policy 5).
- Improve pedestrian access to transit facilities. (Circulation Element, Goal 5.1, Policy 6)
- Continue inter-departmental coordination of water use and conservation policies to improve City-facility water use. (Green Element, Goal 5.1, Policy 2)
- Specify and install water-conserving plumbing fixtures and fittings in public facilities such as parks, community centers, and government buildings. (Green Element, Goal 5.1, Policy 3)
- Continue and expand Anaheim's water rebate program. (Green Element, Goal 5.1, Policy 4)
- Reduce vehicle emissions through traffic flow improvements, such as traffic signal synchronization, Intelligent Transportation Systems, the Scoot Adaptive Traffic Control System, and related capital improvements. (Green Element, Goal 8.1, Policy 1)
- Encourage alternative work schedules for public and private sector workers. (Green Element, Goal 9.12, Policy 1)
- Encourage development of new commercial and industrial projects that provide on-site amenities that help to lessen vehicle trips such as on-site day care facilities, cafeterias, automated teller machines and bicycle storage facilities. (Green Element, Goal 9.12, Policy 2)
- Encourage use of vanpools and carpools by providing priority parking through the project design process. (Green Element, Goal 9.12, Policy 3)
- Encourage the development of commercial, office and residential uses in appropriate mixed-use and multiple use settings. (Green Element, Goal 9.12, Policy 5)

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- Encourage bicycle and pedestrian travel by improving the City's trail and bikeway master plan and by providing convenient links between the trail system and desired destinations. (Green Element, Goal 9.21, Policy 4)
- Continue to expand the convenience and quality of local transit service. (Green Element, Goal 10.1, Policy 1)
- Provide convenient connections and shuttle services from commuter rail stations to employment centers and entertainment venues. (Green Element, Goal 10.1, Policy 2)
- Work with public transit providers to ensure that transit stops are safe, comfortable and convenient. (Green Element, Goal 10.1, Policy 3)
- Continue multi-faceted efforts to inform the public about transit opportunities, scheduling and benefits. (Green Element, Goal 10.1, Policy 4)
- Encourage land use planning and urban design that support alternatives to the private automobile such as mixed-use, provision of pedestrian amenities, and transit-oriented development (Green Element Goal 11.1).
- Encourage commercial growth and the development of commercial centers in accordance with the Land Use Element. (Green Element, Goal 11.1, Policy 1)
- Encourage mixed-use development in accordance with the Land Use Element. (Green Element, Goal 11.1, Policy 2).
- Encourage retail commercial uses in or near residential areas and employment centers to lessen vehicle trips. (Green Element, Goal 11.1, Policy 3)
- Encourage higher densities and mixed-use development in the vicinity of major rail and transit stops. (Green Element, Goal 11.1, Policy 4)
- Encourage a diverse mix of retail uses within commercial centers to encourage one-stop shopping. (Green Element, Goal 11.1, Policy 5)
- Locate new public facilities with access to mass transit service and other alternative transportation services, including rail, bus, bicycles and pedestrian use. (Green Element, Goal 11.1, Policy 6)
- Continue and expand the program to convert City vehicle fleets to alternative fuel and/or electric power. (Green Element, Goal 12.1, Policy 1)
- Continue the City's program of providing a clean -fuel Resort Transit Fleet. (Green Element, Goal 12.1, Policy 2)
- Continue to work with Anaheim businesses to assist with fleet conversion to alternative fuels. (Green Element, Goal 12.1, Policy 3)

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- Work with the U.S. Department of Energy to achieve a Clean City designation for the City of Anaheim. (Green Element, Goal 12.1, Policy 4)
- Continue to update and improve the City's transit programs and informational resources – both web-based and print media. (Green Element, Goal 13.1, Policy 1).
- Disseminate air quality educational materials to residents, businesses, and schools. (Green Element, Goal 13.1, Policy 2).
- Continue to maintain and update energy conservation programs and information provided on the City's website. (Green Element, Goal 15.1, Policy 1)
- Encourage the increased use of passive and active solar design in existing and new development (e.g., orienting buildings to maximize exposure to cooling effects of prevailing winds and locating landscaping and landscape structures to shade buildings). (Green Element, Goal 15.2, Policy 1)
- Encourage energy-efficient retrofitting of existing buildings throughout the City. (Green Element, Goal 15.2, Policy 2)
- Continue educational outreach programs for Anaheim's households, businesses, and schools on the need for recycling solid waste. (Green Element, Goal 16.1, Policy 1)
- Provide adequate solid waste collection and recycling for commercial areas and construction activities. (Green Element, Goal 16.1, Policy 2)
- Encourage the development and use of renewable energy resources. (Public Services and Facilities Element, Goal 3.1, Policy 3)
- Examine and utilize the use of alternative water supplies, such as grey water and reclaimed water, where appropriate and feasible. (Public Services and Facilities Element, Goal 4.1, Policy 3)
- Continue to sponsor and provide water conservation and education programs. (Public Services and Facilities Element, Goal 4.1, Policy 4)
- Reduce the volume of material sent to solid waste sites in accordance with State law by continuing source reduction and recycling programs and by ensuring the participation of all residents and businesses. (Public Services and Facilities Element, Goal 7.1, Policy 2)

#### *City of Anaheim Resolution 2006-187*

In 2006, the Anaheim City Council adopted a Resolution, which sets out the following environmental and sustainability goals for the City:

- The Anaheim Public Utilities will increase purchases of eligible renewable energy resources. The Anaheim Public Utilities will take into consideration market conditions and renewable project availability, as well as utilize similar rate protections as provided to the investor-owned utilities.

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The Anaheim Public Utilities will strive to achieve its target of increasing its purchases of eligible renewable energy resources to 10 percent by 2010 and 20 percent by 2015.

- The Anaheim Public Utilities will register its power plant and fleet emissions and develop a plan to reduce those emissions in conjunction with Cal/EPA mandates.
- All future City-owned projects over 10,000 square feet in building area that enter the design and construction phase shall meet U.S. Green Building Council's Leadership for Energy Efficiency and Design (LEED™) registration and certification, provided that the project is cost-effective over the life of the building.
- Developers and builders in the City shall be encouraged to receive LEED™ registration and certification.
- The Anaheim Public Utilities shall first acquire all cost effective, reliable and feasible energy efficiency and demand reduction resources before procuring other energy resources.
- An overall citywide goal of 20 percent reduction in energy use and a 15 percent reduction in water use are to be achieved by 2015, taking into consideration savings achieved since public benefit programs and water best management practices were implemented.
- The Anaheim Public Utilities shall accelerate the average rate of fleet vehicle replacement to 6 Alternative Fuel Vehicles per year so that 90 percent of the Utilities' light and medium vehicles are Alternative Fuel Vehicles by 2020, provided the appropriate technology is both available as well as appropriately meets business requirements.
- The City shall replace 10 percent of its light, non-emergency vehicles with preferred low emission technologies as the vehicles are scheduled for normal replacement.
- The Anaheim Public Utilities shall provide community leadership as well as education in the principles of environmental soundness and sustainability to increase community awareness, responsibility and participation.

#### Existing Setting

##### *Greenhouse Gas Emissions Inventory*

An existing GHG emissions inventory of the City was conducted based on the existing land uses and is shown in Table 5.2-4. The existing GHG emissions were calculated using OFFROAD2007, EMFAC2011, and emission factors identified in CalEEMod.

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Table 5.2-4  
Existing Anaheim Greenhouse Gas Emissions Inventory

Sector	Existing GHG Emissions	
	MTCO <sub>2</sub> e/year	Percent of Total
Transportation <sup>1</sup>	2,432,336	50%
Energy – Residential <sup>2</sup>	606,037	12%
Energy – Nonresidential <sup>2</sup>	1,513,031	31%
Waste <sup>3</sup>	80,149	2%
Water/Wastewater <sup>4</sup>	184,813	4%
Other – Off-road Equipment <sup>5</sup>	62,267	1%
Existing Community-wide Emissions Total	4,878,634	100%
MTCO <sub>2</sub> e/Service Population (SP) <sup>6</sup>	8.1	NA
Industrial	35,980	NA

Notes:

<sup>1</sup> EMFAC2011 based on daily VMT provided by Iteris using 2012 emission rates. Transportation sector includes the full trip length for external-internal trips. VMT per year based on a conversion of VMT multiplied by 347 days per year to account for less travel on weekend, consistent with CARB statewide GHG emissions inventory methodology (CARB 2008).

<sup>2</sup> Natural gas and electricity use were modeled using data provided by Anaheim Utilities and SoCalGas.

<sup>3</sup> WARM model, version 12, based on waste disposal (municipal solid waste and alternative daily cover) and waste characterization data from CalRecycle (CalRecycle 2013). Modeling assumes a 75 percent reduction in fugitive GHG emissions from the landfill's gas capture system.

<sup>4</sup> LGOP, version 1.1, based on the Anaheim's 2010 UWMP.

<sup>5</sup> OFFROAD2007. Estimated based on population (Landscaping) and employment (Light Commercial Equipment) for Anaheim as a percentage of Orange County. Estimated based on housing permit data for Orange County and the City from the US Census. Daily offroad construction emissions multiplied by 347 days/year to account for reduced/limited construction activity on weekends and holidays. Excludes fugitive emissions from construction sites and wood-burning fireplaces. Various industrial and commercial processes (e.g., manufacturing, dry cleaning) allowed under the Proposed Project would require permitting and would be subject to further study pursuant to SCAQMD Regulation XIII, New Source Review. Because the nature of those emissions cannot be determined at this time and they are subject to further regulation and permitting, they will not be included in the table because they would be speculative.

<sup>6</sup> Based on a service population of existing: 604,081 people (354,383 residents and 249,698 employees).

<sup>7</sup> Industrial Sector are "point" sources that are permitted by SCAQMD. Because the reductions associated with the Industrial sector are regulated separately by SCAQMD and CARB (e.g., through the CAP and trade program and industry-specific sector reductions) and are not under the jurisdiction of the City of Anaheim, these emissions are shown for informational purposes only. In addition, given that these sources are for energy generation, it is likely that associated emissions would be double-counted because indirect GHG emissions from electricity use are included in the residential and non-residential sectors.

### 5.2.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- GHG-1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- GHG-2 Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

#### South Coast Air Quality Management District

To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, the South Coast Air Quality Management District (SCAQMD) has convened a GHG CEQA Significance Threshold Working Group (Working Group). Based on the last Working Group meeting (Meeting No. 15) held in September 2010, SCAQMD is proposing to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency:

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- Tier 1 If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.
- Tier 2 If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.

For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, SCAQMD requires an assessment of GHG emissions. SCAQMD is proposing a screening-level threshold of 3,000 MT annually for all land use types or the following land-use-specific thresholds: 1,400 MTs for commercial projects, 3,500 MT for residential projects, or 3,000 MT for mixed-use projects. These screening-level thresholds, also referred to as bright-line thresholds, are based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on their review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds identified above. Therefore, projects that do not exceed the bright-line thresholds would have a nominal, and therefore, less than cumulatively considerable impact on GHG emissions.

- Tier 3 If GHG emissions are less than the screening-level threshold, project-level and cumulative GHG emissions are less than significant.
- Tier 4 If emissions exceed the screening threshold, a more detailed review of the project's GHG emissions is warranted.

SCAQMD is proposing to adopt an efficiency target for projects that exceed the screening threshold. The current recommended approach is per capita efficiency targets. SCAQMD is not recommending use of a percent emissions reduction target. Instead, SCAQMD proposes a 2020 efficiency target of 4.8 MT per year per service population (MT/year/SP) for project-level analyses and 6.6 MT/year/SP for plan level projects (e.g., program-level projects such as general plans).<sup>4</sup> Based on the long-term GHG reduction target for year 2050 extrapolated from Executive Order S-03-05, the year 2035 target would be four MTCO<sub>2</sub>e per service population for the City. For the purpose of this project, SCAQMD's plan-level threshold extrapolated for year 2035 are used because the Proposed Project is a community wide inventory for the General Plan with a horizon year of 2035. In addition, because the DSEIR evaluates the change in emissions compared to the 2004 Approved project, the change in GHG emissions is also compared to the draft bright-line threshold. If projects exceed these targets, GHG emissions would be considered potentially significant in the absence of mitigation measures.

### 5.2.3 The 2004 Approved Project

As identified above, the 2004 Certified EIR did not evaluate GHG emissions impacts because, prior to SB 97 which went into effect January 1, 2010, this was not included in the CEQA Guidelines Appendix G checklist and the City did not have adopted thresholds at the time of preparation.

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<sup>4</sup> It should be noted that the Working Group also considered efficiency targets for 2035 for the first time in this Working Group meeting.

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#### 5.2.4 Environmental Impacts of the Proposed Project

##### Modeling Methodology

This GHG evaluation was prepared in accordance with the requirements of CEQA to determine if significant GHG impacts are likely to occur in conjunction with future development that would be accommodated by the Proposed Project. SCAQMD has published the CEQA Handbook that is intended to provide local governments with guidance for analyzing and mitigating air quality impacts, which were used in this analysis. Because substantial revisions in modeling methodology, modeling tools, and emissions factors for sectors analyzed have been updated by CARB since the 2004 Certified EIR, criteria air pollutant emissions modeling has been updated for the 2004 Approved Project in order to compare emissions of the 2004 Approved Project to the emissions generated by the Proposed Project. The City's GHG emissions inventory includes the following sectors:

**Transportation:** Transportation emissions forecasts were modeled using CARB's EMFAC2011. Model runs were based on daily per capita VMT data provided by ITERIS using the ATAM and year 2035 emission rates. The VMT provided in the model includes the full trip length for land uses in the City (origin-destination approach) and does not include a 50 percent reduction in VMT for external-internal/internal-external trips. Modeling includes implementation of the Pavley Standards and CARB's LCFS.

**Energy:** Natural gas use and electricity use for residential and non-residential land uses in the City were modeled using data provided by SoCalGas and Anaheim Utility Services, respectively. Natural gas use is based on a two-year average (2011 and 2010) and electricity use is based on a three-year average (2012, 2011, and 2010) to account for fluctuation in annual natural use as a result of natural variations in climate. Forecasts are adjusted for increases in population (residential), employment (nonresidential) and employment plus population (City) in Anaheim. The carbon intensity of Anaheim's purchased electricity is based on information provided by Anaheim Public Utilities Department. Modeling of electricity use includes a reduction in carbon intensity of Anaheim's energy supply required under the 33 percent RPS and SB X1-2 (CEC 2012).

**Waste:** Modeling of landfilled waste disposed of by residents and employees in the City is based on the waste commitment method using the EPA's WARM model, version 12, based on waste disposal (municipal solid waste and alternative daily cover) and waste characterization data from CalRecycle (CalRecycle 2013). Landfills in California have gas capture systems, but because the landfill gas captured is not under the jurisdiction of the City, the landfill gas emissions from the capture system are not included in the City's inventory. Only fugitive sources of GHG emissions from landfill are included. Modeling assumes a 75 percent reduction in fugitive GHG emissions from the landfill's gas capture system. The landfill gas capture efficiency is based on CARB's Local Government Operations Protocol (LGOP), Version 1.1. Forecasts are adjusted for increases in population and employment in the City.

**Water/Wastewater:** GHG emissions from water and wastewater include indirect GHG emissions from the embodied energy of water and wastewater. Total water generation in the City is based on Anaheim's 2010 UWMP. Forecasts are adjusted for increases in population and employment and are based on the target

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per capita SBx7-7.<sup>5</sup> Energy use from water use and wastewater treatment is estimated using energy rates identified by the CEC (CEC 2006) and carbon intensity of energy identified by the Anaheim Public Utilities with reductions from 33 percent RPS and SB X1-2 (see Energy identified above). In addition to the indirect emissions associated with the embodied energy of water use and wastewater treatment, wastewater treatment also results in fugitive GHG emissions from wastewater processing. Fugitive emissions from wastewater treatment in the City were calculated using the emission factors in CARB's LGOP, Version 1.1. Forecasts are adjusted for increases in population and employment in the City.

**Other Sources:** OFFROAD2007 was used to estimate GHG emissions from landscaping equipment, light commercial equipment, and construction equipment in the City. OFFROAD2007 is a database of equipment use and associated emissions for each county compiled by CARB. Annual emissions were compiled using OFFROAD2007 for Orange County for the year 2012. In order to determine the percentage of emissions attributable to the City, landscaping and light commercial equipment is estimated based on population (Landscaping) and employment (Light Commercial Equipment) for the City as a percentage of Orange County, while construction equipment use is estimated based on building permit data for the City and County of Orange from data compiled by the U.S. Census. Daily off-road construction emissions are multiplied by 347 days per year to account for reduced/limited construction activity on weekends and holidays. Forecasts are adjusted for increases in population and employment in the City. Area sources exclude emissions from fireplaces (fugitive particulate matter) and consumer products (VOCs) in the City. Modeling includes implementation of CARB's LCFS.

**Lifecycle:** Life cycle emissions are not included in this analysis because not enough information is available for the proposed project, and therefore life cycle GHG emissions would be speculative.

#### Impact Threshold Analysis

The following analysis compares the potential GHG emissions associated with implementation of the Proposed Project to the GHG emissions associated with implementation of the 2004 Approved Project, and assesses the significance of the Proposed Project's emissions.

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<sup>5</sup> SBx7-7 requires all water suppliers to reduce per capita urban water use by 20 percent by 2020, with incremental progress towards this goal (10 percent by 2015). Effective 2016, urban retail water suppliers who do not meet the water conservation requirements established by SBx7-7 are not eligible for state water grants or loans

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### GREENHOUSE GAS EMISSIONS

**IMPACT 5.2-1: THE 2012 PROPOSED PROJECT'S GHG EMISSIONS WOULD BE GREATER THAN THE 2004 APPROVED PROJECT'S GHG EMISSIONS. [THRESHOLD GHG-1]**

**Impact Analysis:** In accordance with the amendments to the CEQA Guidelines, emissions inventories were compiled to project GHG emissions generated by the 2004 Approved Project and the Proposed Project. The Proposed Project's GHG emissions were compared to the 2004 Approved Project's emissions, which constitute the CEQA baseline. In addition, the significance of the Proposed Project's emissions was assessed using the 2035 target efficiency of 4.0 MTCO<sub>2</sub>e per service population per year for 2035 and a bright-line threshold for the relative increase in emissions, as discussed above.

#### Proposed Project's 2035 GHG Emissions Inventory Compared to the 2004 Approved Project

The GHG emissions inventory for the Proposed Project compared to the 2004 Approved Project is included in Table 5.2-5. The inventory includes reductions from federal and state measures identified in CARB's 2008 Scoping Plan, including the Pavley Standards, LCFS for fuel use (transportation and off-road), and a reduction in carbon intensity from electricity use (see the discussion of the inventory methodology). As shown in the table, similar to the 2004 Approved Project, GHG emissions for the Proposed Project would exceed the proposed SCAQMD's efficiency threshold. Table 5.2-5 also shows that the Proposed Project would result in a substantial increase in GHG emissions compared to the 2004 Approved Project's GHG emissions based on SCAQMD's bright-line threshold.

The City has considered whether there are additional feasible mitigation measures that would reduce the Proposed Project's increased GHG emissions as compared to the 2004 Approved Project. Mitigation measures have been incorporated to reduce potentially significant impacts of the Proposed Project. At this time, there is no plan past the year 2020 that achieves the long-term GHG reduction goal established under Executive Order S-03-05. CARB is currently updating the 2008 Scoping Plan to identify additional measures to achieve the long-term GHG reduction targets. In addition, the City's General Plan includes goals and policies that would reduce GHG emissions. However, as identified by the California Council on Science and Technology, the State cannot meet the 2050 goal without major advancements in technology (CCST 2012). Because no statewide long-term strategy to reduce emissions beyond year 2020 are available that would reduce impacts below SCAQMD's proposed efficiency metric in 2035, GHG emissions of the Proposed Project are considered to be significant and unavoidable.

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*Table 5.2-5  
Proposed Project's 2035 GHG Emissions Inventory Compared to the 2004  
Approved Project*

<i>Pollutant</i>	<i>2035 GHG Emissions (MTCO<sub>2</sub>e/Year)</i>		
	<i>2004 Approved Project</i>	<i>Proposed Project</i>	<i>Increase Substantial?</i>
Transportation <sup>1</sup>	1,776,187	2,178,821	402,634
Energy – Residential <sup>2</sup>	597,031	718,416	121,385
Energy – Nonresidential <sup>2</sup>	1,272,027	1,608,027	335,999
Waste <sup>3</sup>	86,928	106,633	19,705
Water/Wastewater <sup>4</sup>	139,692	171,136	31,444
Other – Off-road Equipment <sup>5</sup>	57,458	64,115	6,657
<b>2035 Community-wide Emissions Total</b>	<b>3,929,322</b>	<b>4,847,147</b>	<b>917,825</b>
<b>MTCO<sub>2</sub>e/Service Population (SP)<sup>6</sup></b>	<b>6.0</b>	<b>6.0</b>	<b>NA</b>
<b>Draft 2035 Thresholds</b>	<b>4.0 MTCO<sub>2</sub>e/SP</b>	<b>4.0 MTCO<sub>2</sub>e/SP</b>	<b>3,000 MTCO<sub>2</sub>e</b>
<b>Exceeds Threshold?</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>

Notes: Emissions forecast based on changes in population (residential energy), employment (nonresidential energy), or service population (City energy, waste, water/wastewater, transportation). The inventory includes reductions identified in the Scoping Plan associated with Transportation (Pavley+LCFS), Energy & Water/Wastewater (33% RPS), and Other (LCFS). The current inventory does not account for reductions in building energy use from Title 24 cycle updates.

Emissions may not total to 100 percent due to rounding.

<sup>1</sup> EMFAC2011 based on daily VMT provided by Iteris using 2035 emission rates. Transportation sector includes the full trip length for external-internal trips. VMT per year based on a conversion of VMT multiplied by 347 days per year to account for less travel on weekend, consistent with CARB statewide GHG emissions inventory methodology (CARB 2008).

<sup>2</sup> Natural gas and electricity use were modeled using data provided by Anaheim Utilities and SoCalGas.

<sup>3</sup> WARM model, version 12, based on waste disposal (municipal solid waste and alternative daily cover) and waste characterization data from CalRecycle (CalRecycle 2013). Modeling assumes a 75 percent reduction in fugitive GHG emissions from the landfill's gas capture system.

<sup>4</sup> LGOP, version 1.1, based on the Anaheim's 2010 UWMP.

<sup>5</sup> OFFROAD2007. Estimated based on population (Landscaping) and employment (Light Commercial Equipment) for Anaheim as a percentage of Orange County. Estimated based on housing permit data for Orange and Anaheim from the US Census. Daily offroad construction emissions multiplied by 347 days/year to account for reduced/limited construction activity on weekends and holidays. Excludes fugitive emissions from construction sites and wood-burning fireplaces. Various industrial and commercial processes (e.g., manufacturing, dry cleaning) allowed under the Proposed Project would require permitting and would be subject to further study pursuant to SCAQMD Regulation XIII, New Source Review. Because the nature of those emissions cannot be determined at this time and they are subject to further regulation and permitting, they will not be included in the table because they would be speculative.

<sup>6</sup> Based on a service population of: 2004 Approved Project = 655,170 people (403,773 residents and 251,397 employees). Proposed Project = 803,687 people (485,866 residents and 317,821 employees).

<sup>7</sup> Industrial Sector are "point" sources that are permitted by SCAQMD. Because the reductions associated with the Industrial sector are regulated separately by SCAQMD and CARB (e.g., through the CAP and trade program and industry-specific sector reductions) and are not under the jurisdiction of the City of Anaheim, these emissions are shown for informational purposes only. In addition, given that these sources are for energy generation, it is likely that associated emissions would be double-counted because indirect GHG emissions from electricity use are included in the residential and non-residential sectors.).

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**IMPACT 5.2-2:***THE PROPOSED PROJECT WOULD NOT CONFLICT WITH AN APPLICABLE PLAN, POLICY OR REGULATION ADOPTED FOR THE PURPOSE OF REDUCING GHG EMISSIONS. [THRESHOLD GHG-2]*

**Impact Analysis:** The City has not adopted a GHG reduction plan that qualifies under CEQA Guidelines Section 15183.5. However, CARB adopted the 2008 Scoping Plan to identify statewide strategies to achieve the GHG reduction targets of AB 32, and SCAG adopted the 2012 RTP/SCS to achieve the local passenger vehicle per capita GHG reduction targets of SB 375.

#### CARB's Scoping Plan

In accordance with AB 32, CARB developed the 2008 Scoping Plan to outline the State's strategy to achieve 1990 level GHG emissions by year 2020. To estimate the reductions necessary, CARB projected statewide 2020 BAU GHG emissions (i.e., GHG emissions in the absence of statewide emission reduction measures). CARB identified that the State as a whole would be required to reduce GHG emissions by 28.5 percent from year 2020 BAU to achieve the targets of AB 32 (CARB 2008). The revised BAU 2020 forecast shows that the state would have to reduce GHG emissions by 21.6 percent from BAU without Pavley and the 33 percent RPS or 15.7 percent from the adjusted baseline (i.e., with Pavley and 33 percent RPS) (CARB 2012). Table 5.2-6 includes a consistency analysis with existing statewide programs adopted for the purpose of reducing GHG emissions. Compliance with State and local regulations would ensure that the Proposed Project would not conflict with the 2008 Scoping Plan.

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*Table 5.2-6  
Proposed Project Consistency with Existing Statewide Programs that  
Reduce GHG Emissions*

<i>Program</i>	<i>Description</i>
California Green Building Standards Code (CALGreen)	New construction in the City must adhere to CALGreen. CALGreen sets minimum standards for all new buildings. Among the new requirements under CALGreen, every new building in California will have to reduce water consumption by 20 percent, and install low VOC materials. Separate indoor and outdoor water meters for nonresidential buildings and moisture-sensing irrigation systems for large landscape projects will be required. Pursuant to AB 1881, new landscaping installed would be required to adhere to the City’s Water Efficient Landscape Ordinance, which incorporates these CALGreen requirements. CALGreen also contains requirements related to bike parking and clean vehicle parking for new nonresidential buildings. New building in the City would be required to be constructed to meet these standards. Pursuant to CALGreen, residential construction (under Section 4.408.1 of CALGreen), with limited exceptions, in the City would require construction contractors to recycle and/or salvage for reuse a minimum of 50 percent of the nonhazardous construction and demolition debris. Non-residential construction (under Section 5.408 of CALGreen) is also required to prepare a waste management plan for the diverted materials. As the City does not have a construction and demolition waste management ordinance, CALGreen requires that a construction waste management plan be submitted for approval to the City that: 1) identifies the materials to be diverted from disposal by recycling, reuse on the project or salvage for future use or sale; 2) specifies if materials will be sorted on-site or mixed for transportation to a diversion facility; 3) identifies the diversion facility where the material collected will be taken; 4) identifies construction methods employed to reduce the amount of waste generated; and 5) specifies that the amount of materials diverted shall be calculated by weight or volume, but not by both. New construction would be required to prepare a construction waste management plan to reduce construction debris disposed of in landfills.
Building and Energy Efficiency Standards	New structures within the City would be required to meet the current Building and Energy Efficiency Standards. The 2008 Building and Energy Efficiency Standards are 15 percent higher energy efficiency than the 2005 Standards. Beginning on January 1, 2014, new buildings would need to meet the 2013 Building and Energy Efficiency Standards. The 2013 Standards are 25 percent more energy efficient than the 2008 Standards for residential buildings and 30 percent more energy efficient than the 2008 Standards for non-residential buildings.
Title 24 Code Cycles	Title 24 Code Cycles identify a goal of reaching zero net energy in residential construction by year 2020 and in commercial construction by year 2030. Achieving this goal will require increased stringency in each code cycle of California’s Energy Code (Title 24). Title 24 codes are updated on a tri-annual basis. Consequently, it is likely that additional reductions in building energy use for new construction would occur within the City.
33% Renewable Portfolio Standard (RPS)	According to the Anaheim Utilities Services Department, the Utility is on track to achieve the statewide target of achieving a renewable portfolio mix of 33 percent by year 2020. Energy purchased by residential and nonresidential customers in the City would have a lower carbon intensity and associated GHG emissions as a result of compliance with the statewide mandate.
CARB Low Carbon Fuel Standard (LCFS)	CARB’s LCFS requires California’s transportation fuels to reduce their carbon intensity by at least 10 percent by year 2020. Fuels used by construction equipment and fuel with on-road transportation sources would comply with the LCFS.
Pavley I and California’s Advanced Clean Car Program	Pavley I reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent by year 2016. In 2012, Cal/EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 light-duty vehicles. California’s Pavley I and Advanced Clean Car Standards are expected to reduce GHG emissions from California passenger vehicles in the City as vehicle fleets turn over.
Waste Reduction:	AB 939 mandates local jurisdictions meet a solid waste diversion goal of 25 percent by year 1995 and 50 percent by year 2000. The City meets the State’s AB 939 waste diversion goals. AB 341 sets a target for jurisdictions to achieve a 75 percent waste diversion goal by year 2020. AB 341 also mandates recycling at commercial and multi-family land uses. Compliance with these existing regulations would encourage recycling and further reduce GHG emissions from waste disposal.

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#### SCAG's 2012 RTP/SCS

SCAG's 2012 RTP/SCS is a regional growth management strategy that targets per capita GHG emissions reduction from passenger vehicles and light duty trucks in the Southern California region. The 2012 RTP/SCS incorporates local land use projections and circulation networks in the cities' and counties' general plans. The projected regional development pattern, including location of land uses and residential densities included in local general plans, when integrated with the proposed regional transportation network identified in the 2012 RTP/SCS, would reduce per capita vehicular travel-related GHG emissions and achieve the subregional GHG reduction per capita targets for the SCAG region.

Overall, land use designations between the existing current General Plan and the 2004 Approved Project are similar. However, the existing current General Plan allows for more intense residential and non-residential residential land uses within the City than currently forecast in the Orange County SCS; and therefore, the 2012 RTP/SCS. While the existing current General Plan would result in a higher population, employment, and number of housing units compared to the 2004 Approved Project, increasing density in urban areas of the SCAG region is one of the primary goals of the 2012 RTP/SCS. In 2007, the CEC published *The Role of Land Use in Meeting California's Energy and Climate Change Goals* (CEC 2007). In this publication, the CEC acknowledged that California's land use patterns shape energy use and the production of GHG. Transportation contributes a large percentage of the State's GHG emissions, and research shows that increasing a community or development's density and accessibility to job centers are the two most significant factors for reducing VMT through design (CEC 2007). Consequently, these land use strategies identified under the existing current General Plan are compatible with the overall goals of the 2012 RTP/SCS. Therefore, the Proposed Project, which would not change any of the existing current General Plan policies or land use designations, is consistent with the growth strategies of the 2012 RTP/SCS. Table 5.2-7, provides an assessment of the proposed project's relationship to applicable goals included in the Orange County SCS prepared by OCTA, which were integrated in SCAG's 2012 RTP/SCS.

The Proposed Project, like the 2004 Approved Project, would be consistent with the applicable Orange County SCS goals, which have been incorporated into SCAG's 2012 RTP/SCS.

Table 5.2-7

#### Orange County Subregional SCS Consistency Analysis

<i>Sustainability Strategies</i>	<i>Project Consistency</i>
Support transit-oriented development.	<p><b>Consistent:</b> The Anaheim General Plan includes policies that would directly or indirectly support transit-oriented development.</p> <p>Applicable General Plan policies include:</p> <ul style="list-style-type: none"> <li>• Support transit supportive land uses and in new development. (Circulation Element, Goal 5.1, Policy 3)</li> <li>• Intensify land uses in close proximity to future bus BRT stop(s) where appropriate. (Circulation Element, Goal 5.1, Policy 5)</li> <li>• Encourage development of new commercial and industrial projects that provide on-site amenities that help to lessen vehicle trips such as on-site day care facilities, cafeterias, automated teller machines and bicycle storage facilities. (Green Element, Goal 9.12, Policy 2)</li> <li>• Policies related to encouraging land use planning and urban</li> </ul>

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*Table 5.2-7  
Orange County Subregional SCS Consistency Analysis*

<i>Sustainability Strategies</i>	<i>Project Consistency</i>
	<p>design that support alternatives to the private automobile such as mixed-use, provision of pedestrian amenities, and transit-oriented development. (Green Element, Goals 9.1 and 11.1)</p> <ul style="list-style-type: none"> <li>• Encourage higher densities and mixed-use development in the vicinity of major rail and transit stops. (Green Element, Goal 11.1, Policy 4)</li> </ul>
Support infill housing development and redevelopment.	<p><b>Consistent:</b> The Anaheim General Plan includes policies that would support the development of infill housing. Goal 4.1 of the General Plan Land Use Element states, “Maximize development opportunities along transportation routes.”</p> <p>Applicable General Plan policies include:</p> <ul style="list-style-type: none"> <li>• Encourage mixed-use and commercial development that provides: <ul style="list-style-type: none"> <li>○ Safe places for pedestrians to walk;</li> <li>○ Attractive surroundings;</li> <li>○ Opportunities for social interaction;</li> <li>○ Comfortable places to sit and relax; and</li> <li>○ Interplay between the interior uses of buildings and outdoor uses, such as sidewalk cafes. (Land Use Element, Goal 5.1, Policy 1)</li> </ul> </li> <li>• Facilitate the development of residential land uses in mixed-use areas to provide a consumer and employment base for commercial and office uses. (Land Use Element, Goal 5.1, Policy 2)</li> <li>• Mixed-use and commercial centers should be physically linked with residential neighborhoods. (Land Use Element, Goal 5.1, Policy 3)</li> <li>• Promote development that is efficient, pedestrian-friendly, and served by a variety of transportation options. (Land Use Element, Goal 5.1, Policy 4)</li> <li>•</li> </ul>
Support mixed-use development and thereby improve walkability of communities.	<p><b>Consistent:</b> The 2004 Approved Project includes policies that would support mixed-use development and improve walkability. The Proposed Project would not hinder the City’s ability to implement the transportation and land use policies in the City’s General Plan that support these similar regional goals.</p> <p>Applicable General Plan policies include:</p> <ul style="list-style-type: none"> <li>• Encourage mixed-use development in accordance with the Land Use Element. (Green Element, Goal 11.1, Policy 2)</li> <li>• Encourage bicycle and pedestrian travel by improving the City’s trail and bikeway master plan and by providing convenient links between the trail system and desired destinations. (Green Element, Goal 9.21, Policy 4)</li> <li>• Improve pedestrian access to transit facilities. (Circulation Element, Goal 5.1, Policy 6)</li> <li>•</li> </ul>
Improve jobs-to-house ratio.	<p><b>Consistent:</b> The Proposed Project involves the rezoning of the Housing Opportunity Sites to be consistent with land use designations identified for those sites in the 2004 Approved Project. The 2004 Certified EIR concluded that upon implementation of regulatory requirements and General Plan goals</p>

## 5. Environmental Analysis

### GREENHOUSE GAS EMISSIONS

*Table 5.2-7  
Orange County Subregional SCS Consistency Analysis*

<i>Sustainability Strategies</i>	<i>Project Consistency</i>
	and policies, buildout of the General Plan would not result in significant impacts related to population and housing. Because the 2004 Certified EIR contemplated development of the housing opportunity sites for residential and mixed uses, impacts to population and housing resulting from the Proposed Project would be consistent with goals to improve the jobs-housing balance in this regard.
Promote land use patterns that encourage the use of alternatives to single-occupant automobile use.	<p><b>Consistent:</b> The 2004 Approved Project includes policies that directly or indirectly encourage alternatives to single-occupant automobile use. The Proposed Project would not modify these policies.</p> <p>Applicable General Plan policies include:</p> <ul style="list-style-type: none"> <li>• Encourage the development of commercial, office and residential uses in appropriate mixed-use and multiple use settings. (Green Element, Goal 9.12, Policy 5)</li> <li>• Encourage retail commercial uses in or near residential areas and employment centers to lessen vehicle trips. (Green Element, Goal 11.1, Policy 3)</li> <li>• Encourage a diverse mix of retail uses within commercial centers to encourage one-stop shopping. (Green Element, Goal 11.1, Policy 5)</li> <li>• Locate new public facilities with access to mass transit service and other alternative transportation services, including rail, bus, bicycles and pedestrian use. (Green Element, Goal 11.1, Policy 6)</li> <li>•</li> </ul>
Support retention and/or development of affordable housing.	<p><b>Consistent:</b> The Anaheim General Plan includes policies that would support the development of affordable housing. General Plan Land Use Element Goal 2.1 states, “Continue to provide a variety of quality housing opportunities to address the City’s diverse housing needs.” The Proposed Project would specifically implement Housing Production Strategy IV of the Housing Element.</p>
Support natural land restoration and conservation and/or protection offering significant carbon mitigation potential via both sequestration and avoidance of increased emissions due to land conversion.	<p><b>Consistent:</b> The Proposed Project involves the rezoning of the Housing Opportunity Sites to be consistent with land use designations currently identified for those sites in the Anaheim General Plan and would not affect conservation efforts in the City.</p> <p>Applicable General Plan policy includes:</p> <ul style="list-style-type: none"> <li>• Support efforts to preserve natural habitat through continued participation in the Natural Communities Conservation Plan. (Green Element, Goal 14.1, Policy 1)</li> <li>•</li> </ul>
Eliminate bottlenecks and reduce delay on freeways, toll roads, and arterials.	<p><b>Consistent:</b> The 2004 Approved Project includes mitigation measures to reduce congestion at intersections within the City. Iteris evaluated traffic conductions for the Proposed Project. As described in Section 5.2-4, <i>Transportation and Traffic</i>, the DSEIR includes revisions to these measures to reduce congestion associated with the Proposed Project and as a result of changes in environmental conditions that have occurred since the 2004 Certified EIR.</p> <p>Applicable General Plan policy includes:</p> <ul style="list-style-type: none"> <li>• Reduce vehicle emissions through traffic flow improvements,</li> </ul>

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### GREENHOUSE GAS EMISSIONS

*Table 5.2-7  
Orange County Subregional SCS Consistency Analysis*

<i>Sustainability Strategies</i>	<i>Project Consistency</i>
	such as traffic signal synchronization, Intelligent Transportation Systems, the Scoot Adaptive Traffic Control System, and related capital improvements. (Green Element, Goal 89.1, Policy 1)
Apply Transportation System Management and Complete Street practices to arterials and freeways to maximize efficiency.	<p><b>Consistent:</b> The Anaheim General Plan includes policies for transportation system management. The 2004 Approved Project includes mitigation measures to reduce congestion at intersections within the City. Iteris evaluated traffic conductions for the Proposed Project. As described in Section 5.2-4, <i>Transportation and Traffic</i>, the DSEIR includes revisions to these measures to reduce congestion associated with the Proposed Project and as a result of changes in environmental conditions that have occurred since the 2004 Certified EIR.</p> <p>Applicable General Plan policy includes:</p> <ul style="list-style-type: none"> <li>• Reduce vehicle emissions through traffic flow improvements, such as traffic signal synchronization, Intelligent Transportation Systems, the Scoot Adaptive Traffic Control System, and related capital improvements. (Green Element, Goal 89.1, Policy 1)</li> </ul>
Improve modes through enhanced service, frequency, convenience, and choices.	<p><b>Consistent:</b> The Anaheim General Plan includes policies for increasing the use of alternative modes of transportation.</p> <p>Applicable General Plan policies include:</p> <ul style="list-style-type: none"> <li>• Support the efforts of regional, State and Federal agencies to provide additional local and express bus service in the City. (Circulation Element, Goal 5.1, Policy 1)</li> <li>• Continue to expand the convenience and quality of local transit service. (Green Element, Goal 10.1, Policy 1)</li> <li>• Provide convenient connections and shuttle services from commuter rail stations to employment centers and entertainment venues. (Green Element, Goal 10.1, Policy 2)</li> <li>• Work with public transit providers to ensure that transit stops are safe, comfortable and convenient. (Green Element, Goal 10.1, Policy 3)</li> <li>• Continue multi-faceted efforts to inform the public about transit opportunities, scheduling and benefits. (Green Element, Goal 10.1, Policy 4)</li> <li>• Continue to update and improve the City’s transit programs and informational resources – both web-based and print media. (Green Element, Goal 13.1, Policy 1)</li> <li>• Disseminate air quality educational materials to residents, businesses, and schools. (Green Element, Goal 13.1, Policy 2)</li> </ul>
Expand and enhance Transportation Demand Management practices to reduce barriers to alternative travel modes and attract commuters away from single occupant vehicle travel.	<p><b>Consistent:</b> The Anaheim General Plan includes policies to reduce barriers to alternative travel modes.</p> <p>Applicable General Plan Policies include:</p> <ul style="list-style-type: none"> <li>• Encourage alternative work schedules for public and private sector workers. (Green Element, Goal 9.12, Policy 1)</li> <li>• Encourage use of vanpools and carpools by providing priority parking through the project design process. (Green Element, Goal 9.12, Policy 3)</li> </ul>

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### GREENHOUSE GAS EMISSIONS

Table 5.2-7

#### Orange County Subregional SCS Consistency Analysis

<i>Sustainability Strategies</i>	<i>Project Consistency</i>
Continue existing, and explore expansion of, highway pricing strategies.	<b>Not Applicable:</b> The City does not have jurisdictional control over the pricing strategies for roadways on the State Highway System.
Implement near-term (Transportation Improvement Program and Measure M2 Early Capital Action Plan) and long-term (LRTP 2035 Preferred Plan) transportation improvements to provide mobility choices and sustainable transportation options.	<p><b>Consistent:</b> The 2004 Approved Project includes mitigation measures to reduce congestion at intersections within the City. Iteris evaluated traffic conditions for the Proposed Project. As described in Section 5.4, <i>Transportation and Traffic</i>, the DSEIR includes revisions to these measures to reduce congestion associated with the Proposed Project and as a result of changes in environmental conditions that have occurred since the 2004 Certified EIR.</p> <p>Applicable General Plan Policy includes:</p> <ul style="list-style-type: none"> <li>• Reduce vehicle emissions through traffic flow improvements, such as traffic signal synchronization, Intelligent Transportation Systems, the Scoot Adaptive Traffic Control System, and related capital improvements. (Green Element, Goal 89.1, Policy 1)</li> </ul>
Acknowledge current sustainability strategies practiced by Orange County jurisdictions and continue to implement strategies that will result in or support the reduction of GHG emissions.	<b>Consistent:</b> The City has adopted a Green Building Program and offers a robust incentive program for residents and business to help build greener. Commercial project incentives to build to LEED, California Green Build, Build It Green, or other certified rating program standards range from \$15,000 to \$30,000. The City's Utility also offers rebates for solar energy projects and maintains a mapping program that assesses the solar potential of residential and non-residential structures in the City. The Orange County SCS highlights the Platinum Triangle and Anaheim Resort Transit as examples of current sustainability strategies. Please also refer to the General Plan policies listed in the analysis for Impact 5.2-1.

Source: SCAG 2012 RTP/SCS, Orange County SCS.

#### 5.2.5 Applicable Mitigation Measures from the 2004 Certified EIR

The 2004 Certified EIR did not evaluate GHG emissions impacts because this was not included in the CEQA Guidelines Appendix G checklist and the City did not have adopted thresholds at the time of preparation. However, the 2004 Certified EIR included several mitigation measures for air quality that are reproduced below because of their ability to reduce GHG emissions impacts of the Proposed Project:

MM 5.2-2 The City shall reduce vehicle emissions caused by traffic congestion by implementing transportation systems management techniques that include synchronized traffic signals and limiting on-street parking.

MM 5.2-3 The City shall encourage major employers, tenants in business parks and other activity centers, and developers of large new developments to participate in transportation management associations.

MM 5.2-4 The City shall consider the feasibility of diverting commercial truck traffic to off-peak periods to alleviate non-recurrent congestion as a means to improve roadway efficiency.

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### GREENHOUSE GAS EMISSIONS

MM 5.2-5 The City will encourage the incorporation of energy conservation techniques (i.e. installation of energy saving devices, construction of electric vehicle charging stations, use of sunlight filtering window coatings or double-paned windows, utilization of light-colored roofing materials as opposed to dark-colored roofing materials, and placement of shady trees next to habitable structures) in new developments.

MM 5.2-6 The City will encourage the incorporation of bus stands, bicycle racks, bicycle lanes, and other alternative transportation related infrastructure in new developments.

#### 5.2.6 Level of Significance Before Additional Mitigation

Upon implementation of regulatory requirements, the following impacts would be less than significant for the Proposed Project: 5.2-2

Upon implementation of regulatory requirements, the following impacts would be significant for the Proposed Project: 5.2-1

#### 5.2.7 Additional Mitigation Measures for the Proposed Project

The following additional feasible mitigation measures have been incorporated to reduce the potentially significant impacts of the Proposed Project.

Impact 5.2-1

MM 5.2-8 The City shall evaluate strategies to reduce truck idling during the peak hour period of the roadway network, such as staggered work/delivery schedules, truck routes, and/or intersection improvements.

MM 5.2-9 The City shall support and promote the use of low- and zero-emission vehicles, by:

- Encouraging the necessary infrastructure to facilitate the use of zero- emission vehicles and clean alternative fuels, such as electric vehicle charging facilities and conveniently-located alternative fueling stations.
- Encouraging new construction to include vehicle access to properly wired outdoor receptacles to accommodate zero emission vehicles (ZEV) and/or plug-in electric hybrids (PHEV).
- Encouraging transportation fleet standards to achieve the lowest emissions possible, using a mix of alternate fuels, partial ZEV, or newer fleet mixes.

MM 5.2-10 The City shall encourage the performance of energy audits of buildings prior to completion of sale, and that audit results and information about opportunities for energy efficiency improvements be presented to the buyer.

MM 5.2-11 The City shall develop protocols for safe storage of renewable and alternative energy products with the potential to leak, ignite, or explode, such as biodiesel, hydrogen, and/or compressed air.

## 5. Environmental Analysis

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### GREENHOUSE GAS EMISSIONS

MM 5.2-12 The City shall recognize businesses in the City that reduce GHG emissions (e.g., reduced energy use) as a means to encourage GHG reductions and recognize success.

#### 5.2.8 *Level of Significance After Additional Mitigation*

##### Impact 5.2-1

As identified in Impact 5.2-1, similar to the 2004 Approved Project, GHG emissions for the Proposed Project would exceed the proposed SCAQMD's efficiency threshold. Table 5.2-5 also shows that the Proposed Project would result in a substantial increase in GHG emissions compared to the Approved Project's GHG emissions based on SCAQMD's bright-line threshold. Due to the increase in development intensity associated with the Proposed Project, the magnitude of the increase in criteria air pollutants compared to the 2004 Certified EIR would be significant. Existing Mitigation Measures 5.2-2 through 5.2-6 and new Mitigation Measures 5.2-8 through 5.2-14 would reduce GHG emissions to the extent feasible. However, like the 2004 Approved Project, Impact 5.2-2 associated with the Proposed Project would remain significant and unavoidable even after mitigation and would result in greater impacts compared to the 2004 Approved Project.