

## 5.7 Greenhouse Gas Emissions

Based on Appendix G of the *State CEQA Guidelines* and comments received during the Notice of Preparation (NOP) public review period, this section evaluates the Project's generation of greenhouse gas (GHG) emissions and consistency with applicable plans policies, or regulations adopted for the reduction of GHG emissions. Comments received in response to the NOP along with notes from the Scoping Meeting are included in Appendix A of this DEIR.

The analysis in this section is based on the *Sycamore Canyon Business Park Warehouse CalEEMod Emissions Estimates, LST Analysis, and Screening HRA (AQ Report)* prepared for this Project (included as Appendix B and GHG modeling included in Appendix F). The methodology is consistent with draft guidance prepared by the South Coast Air Quality Management District (SCAQMD) for quantification of emissions and evaluation of potential impacts related to GHG emissions. As recommended by SCAQMD staff, the California Emissions Estimator Model (CalEEMod™) version 2013.2.2 program was used to quantify project-related emissions. An individual project cannot generate enough GHG emissions to effect a discernible change in global climate. However, the proposed Project may participate in this potential impact by its incremental contribution combined with the cumulative increase of all other sources of GHGs which, when taken together, may influence global climate change. Because these changes may have serious environmental consequences, this section will evaluate the potential for the proposed Project to have a significant effect upon California's environment as a result of its potential contribution to the enhanced greenhouse effect.

### 5.7.1 Setting

The earth's natural warming process is known as the "greenhouse effect." Certain atmospheric gases act as an insulating blanket for solar energy to keep the global average temperature in a suitable range. These gases are called "greenhouse gases" because they trap heat like the glass walls of a greenhouse. The greenhouse effect raises the temperature of the earth's surface by about sixty 60 degrees Fahrenheit. With the natural greenhouse effect, the average temperature of the earth is about 45 degrees Fahrenheit; without it, the earth would be about minus 15 degrees. It is normal for the earth's temperature to fluctuate over extended periods of time. Over the past one hundred 100 years, however, the earth's average global temperature has generally increased by one degree Fahrenheit. In some regions of the world, the increase has been as much as four degrees Fahrenheit.

Scientists studying the particularly rapid rise in global temperatures during the late twentieth century believe that natural variability alone does not account for that rise. Rather, human activity spawned by the industrial revolution has resulted in increased emissions of carbon dioxide and other forms of GHGs, primarily from the burning of fossil fuels (during motorized transport, electricity generation, consumption of natural gas, industrial activity, manufacturing, etc.) and deforestation, as well as agricultural activity and the decomposition of solid waste. The most common GHG is carbon dioxide (CO<sub>2</sub>), which constitutes approximately 84 percent of all GHG emissions in California (CEC 2006). Worldwide, the State of California ranks as the

12th to 16th largest emitter of CO<sub>2</sub> and is responsible for approximately two percent of the world's CO<sub>2</sub> emissions. Scientists refer to the global warming context of the past century as the "enhanced greenhouse effect" to distinguish it from the natural greenhouse effect (CEC 2006). While the increase in temperature is known as "global warming," the resulting change in weather patterns is known as "global climate change." Global climate change is evidenced in changes to wind patterns, storms, precipitation, and air temperature.

Global climate change is by definition a global issue and California's efforts to reduce GHG emissions will not alone change the impact of global climate change. Global concentrations of GHG rather than locational GHG emissions result in adverse climate change impacts that differentially occur throughout the world, and specific scientific metrics and methodologies to measure the climate change consequences (if any) of locally-specific impacts remain subject to considerable scientific uncertainty. For example, California emits only a tiny fraction of global GHG. The whole of the California economy's GHG emissions have dropped from approximately 1.35% percent of global GHG emissions in 1990 to 0.98% percent in 2011. As Governor Brown recently noted about California's GHG reduction efforts, "we can do things in California, but if others don't follow, it will be futile." Thus, reducing California's GHG emissions (even as the 8th eighth largest economy in the world) cannot meaningfully impact the quantity of GHGs in the global atmosphere. To date, the vast majority of other states and nations have not followed California's lead in mandating GHG emission reductions across a broad spectrum of economic sectors under laws and regulations discussed in greater detail below, and have not enacted regulations similar to those adopted in California. California already has nearly the lowest level of GHG per capita of any state. Project-level emissions for activities that occur as a result of population-based variables (people needing housing, jobs, and services) that occur in California reduces global GHG emissions by facilitating more growth and development in California relative to other states.

### **Global Warming Potentials**

Individual GHGs have varying global warming potential and atmospheric lifetimes. The Intergovernmental Panel on Climate Change (IPCC) developed the Global Warming Potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of individual GHGs is determined through a comparison with the GWP of CO<sub>2</sub>. CO<sub>2</sub> has a GWP of one; CH<sub>4</sub> has a GWP of 21, meaning that on a molecule by molecule basis, CH<sub>4</sub> has 21 times the global warming potential of CO<sub>2</sub>. CO<sub>2</sub>-equivalents (CO<sub>2</sub>E) are the emissions of a GHG multiplied by the GWP. The CalEEMod program calculates the CO<sub>2</sub>E based on the GWPs reported in the IPCC Second Assessment Report (IPCC 1995, p. 22).

**Table 5.7-A – Global Warming Potentials and Atmospheric Lifetimes** shows the GWP and atmospheric lifetimes of various GHGs with relatively long atmospheric lifetimes from the IPCC 1995 report.

**Table 5.7-A – Global Warming Potentials and Atmospheric Lifetimes**

Gas	Atmospheric Lifetime	Global Warming Potential (100-Year Time Horizon)
Carbon Dioxide (CO <sub>2</sub> )	50-200	1
Methane (CH <sub>4</sub> )	12±3	21
Nitrous Oxide (N <sub>2</sub> O)	120	310
Hydrofluorocarbons (HFCs)		
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
Perfluoromethane (CF <sub>4</sub> )	50,000	6,500
Perfluoroethane (C <sub>2</sub> F <sub>6</sub> )	10,000	9,200
Sulfur Hexafluoride (SF <sub>6</sub> )	3,200	23,900
Notes: Source: Intergovernmental Panel on Climate Change, Second Assessment Report, <i>Climate Change 1995 – The Science of Climate Change</i> , 1996, Table 4		

## 5.7.2 Related Regulations

### International

#### International Treaties and Other Developments

The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. It was adopted in Kyoto, Japan, on December 11, 1997 and entered into force on February 16, 2005 for the 141 countries that ratified it. 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. The targets amount to an average of five percent reduction against 1990 levels over the five-year period 2008-2012. The major distinction between the Protocol and the Convention is that while the Convention encouraged industrialized countries to stabilize GHG emissions, the Protocol commits them to do so. Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities" (UN 1997).

Negotiations after Kyoto have continued in an attempt to address the period after the first "commitment period" of the Kyoto Protocol, concluded at the end of 2012. In Durban, South Africa in 2011, parties to the protocol agreed in principle to negotiate a new comprehensive and legally binding climate agreement by 2015 and to enter it into force for all parties starting from 2020. However, significant divisions remain in determining the parameters of any such

new protocol, including its enforcement mechanisms and the degree to which developing economies will begin to be subject to binding emissions targets.

## **Federal**

Although the U.S. is not a party to the Kyoto Protocol, in 2002 President George W. Bush set a national policy goal of reducing the GHG emission intensity (tons of GHG emissions per million dollars of gross domestic product) of the U.S. economy by 18 percent by 2012 (NOAA). The goal did not establish any binding reduction mandates. Rather, the United States Environmental Protection Agency (USEPA) began to administer a variety of voluntary programs and partnerships with industries that produce and utilize synthetic gases to reduce emissions of particularly potent GHGs.

### *Supreme Court Ruling in Massachusetts et al. v. Environmental Protection Agency*

The Bush Administration's approach to addressing climate change was challenged in *Massachusetts et al. v. Environmental Protection Agency*, 549 US 497 (2007). In this decision, the U.S. Supreme Court held that the USEPA was authorized by the Clean Air Act to regulate CO<sub>2</sub> emissions from new motor vehicles. (MASS). The Court did not mandate that the USEPA enact regulations to reduce GHG emissions, but found that the only instance in which the USEPA could avoid taking action were it found that GHGs do not contribute to climate change or if it offered a "reasonable explanation" for not determining that GHGs contribute to climate change.

On December 7, 2009, the USEPA issued an "endangerment finding" under the Clean Air Act concluding that GHGs threaten the public health and welfare of current and future generations and that motor vehicles contribute to greenhouse gas pollution (EPA ECCF). These findings provide the basis for adopting new national regulations to mandate GHG emission reductions under the federal Clean Air Act. The EPA's endangerment finding paved the way for federal regulation of GHGs.

It was expected that Congress would enact GHG legislation primarily for a cap-and-trade system. However proposals circulated in both the House of Representatives and Senate were controversial and it may be some time before Congress adopts major climate change legislation. Under the Consolidated Appropriations Act of 2008 (HR 2764), Congress established mandatory GHG reporting requirements for some emitters of GHGs. In addition, on September 22, 2009, the USEPA issued the Final Mandatory Reporting of Greenhouse Gases Rule. The rule requires annual reporting to the USEPA of GHG emissions from large sources and suppliers of GHGs, including facilities that emit 25,000 metric tons or more a year of GHGs.

The following sections summarize USEPA's recent regulatory activities with respect to various types of GHG sources.

### USEPA and NHTSA Joint Rulemaking for Vehicle Standards

In response to the *Massachusetts v. EPA* ruling discussed above, the Bush Administration issued an Executive Order on May 14, 2007, directing the USEPA, the Department of Transportation (DOT), and the Department of Energy (DOE) to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008.

On October 10, 2008, the National Highway Traffic Safety Administration (NHTSA) released a final environmental impact statement analyzing proposed interim standards for passenger cars and light trucks in model years 2011 through 2015. The NHTSA issued a final rule for model year 2011 on March 30, 2009 (NHTSA 2009).

On May 7, 2010, the USEPA and the NHTSA issued a final rule regulating fuel efficiency and GHG pollution from motor vehicles for cars and light-duty trucks for model years 2012–2016 (EPA 2010). On May 21, 2010, President Obama issued a memorandum to the Secretaries of Transportation and Energy, the Administrators of the USEPA, and the NHTSA calling for establishment of additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. (GPO FR 2010) In response to this directive, USEPA and NHTSA issued a Supplemental Notice of Intent announcing plans to propose stringent, coordinated federal greenhouse gas and fuel economy standards for model year 2017-2025 light-duty vehicles (GPO FR 2011). The agencies proposed standards projected to achieve 163 grams/mile of CO<sub>2</sub> in model year 2025, on an average industry fleet wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The California Air Resources Board (CARB) announced its support of this national program (CARB 2011a). The final rule was adopted in October 2012 and NHTSA intends to set standards for model years 2022-2025 in a future rulemaking (NHTSA 2012a, NHTSA 2012b).

### Heavy-duty Engines and Vehicles Fuel Efficiency Standards

In addition to the regulations applicable to cars and light-duty trucks, on August 9, 2011, the USEPA and the NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks, which applies to vehicles from model year 2014-2018 (EPA 2011a). USEPA and NHTSA adopted standards for CO<sub>2</sub> emissions and fuel consumption respectively, tailored to each of three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to USEPA, this program will reduce GHG emissions and fuel consumption for affected vehicles by nine percent to 23 percent.

### USEPA SmartWay<sup>SM</sup> Program

SmartWay is an USEPA program that reduces transportation-related emissions by creating incentives to improve supply chain fuel efficiency. There are five primary elements of the program: (1) SmartWay Transport Partnership, a partnership in which freight carriers and shippers commit to benchmark operations, track fuel consumption and improve performance annually; (2) SmartWay Technology Program, a testing, verification, and designation program to help freight companies identify equipment, technologies and strategies that save fuel and lower emissions; (3) SmartWay Finance Program, a competitive grant program that makes investing in fuel-saving equipment easier for freight carriers; (4) SmartWay Vehicles, a program

that ranks light-duty cars and small trucks and identifies superior environmental performers with the SmartWay logo; and (5) SmartWay International Interests, which provides guidance and resources for countries seeking to develop freight sustainability programs modeled after SmartWay (EPA SW).

#### Energy Independence and Security Act

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law (EISA). Among other key measures, the Act would do the following, which would aid in the reduction of national mobile and non-mobile GHG emissions:

1. Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
2. Prescribe or revise standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.
3. While superseded by NHTSA and USEPA actions described above, EISA also set miles per gallon targets for cars and light trucks and directed the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.

Additional provisions of the EISA address energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green jobs."

#### American Recovery and Reinvestment Act

On February 17, 2009, President Obama signed the American Recovery and Reinvestment Act (ARRA) of 2009. ARRA was passed in response to the economic crisis of the late 2000s with the primary purpose to maintain existing jobs and create new jobs. Among the secondary objectives of ARRA was investment in "green" energy programs including funding the following through grants, loans, or other funding, private companies developing renewable energy technologies, local and state governments implementing energy efficiency and clean energy programs, research in renewable energy, biofuels, and carbon capture, and development of high efficiency or electric vehicles (EPA 2009).

#### CEQ NEPA Guidelines on GHG

On February 18, 2010, the White House Council on Environmental Quality (CEQ) published draft guidance on the consideration of greenhouse gases and climate change for National Environmental Policy Act (NEPA) analyses (CEQ 2010). It recommends that proposed federal actions that are reasonably expected to directly emit 25,000 MMTCO<sub>2</sub>e/year should prepare a quantitative and qualitative NEPA analysis of direct and indirect greenhouse gas emissions.

The draft guidance provides reporting tools and instructions on how to assess the effects of climate change. The draft guidance does not apply to land and resource management actions, nor does it propose to regulate greenhouse gases. Although CEQ has not yet issued final guidance, various NEPA documents are beginning to incorporate the approach recommended in the draft guidance (NHTSA 2012b).

#### Voluntary Programs

The USEPA administers a variety of voluntary programs and partnerships with GHG emitters in which the USEPA partners with industries that produce and utilize synthetic gases to reduce emissions of particularly potent GHGs.

For example, the USEPA's National Clean Diesel Campaign (NCDC) promotes diesel emission reduction strategies. The NCDC works to reduce the pollution emitted from diesel engines across the country through the implementation of varied control strategies by working with manufacturers, fleet operators, air quality professionals, environmental and community organizations, and state and local officials to reduce diesel emissions. NCDC activities include developing new emissions standards for locomotive and marine diesel engines, promoting the reduction of emissions for existing diesel engines including use of cleaner fuels, retrofitting and repairing existing fleets, and idling reduction among others. The USEPA also administers the State and Local Climate and Energy Program that provides technical assistance, analytical tools, and outreach support to state, local, and tribal governments<sup>1</sup> (EPA NCDC).

### **Multi-State/Regional Area**

#### The Western Regional Climate Action Initiative (WCI)

The Western Regional Climate Action Initiative (WCI) is a partnership among seven states including California and four Canadian provinces to implement a regional, economy-wide cap-and-trade system to reduce global warming pollution. The WCI will cap GHG emissions from the region's electricity, industrial, and transportation sectors with the goal to reduce the heat trapping emissions that cause global warming to 15 percent below 2005 levels by 2020. When the WCI adopted this goal in 2007, it estimated this would require 2007 levels to be reduced worldwide between 50 and 85 percent by 2050. California is working closely with the other states and provinces to design a regional GHG reduction program that includes a cap-and-trade approach. CARB's planned Cap-and-Trade Program, discussed below, is also intended to link California and the other member states and provinces. As of January 1, 2014, California's Cap-and-Trade Program is linked to Quebec's pursuant to the Agreement Between the California Air Resources Board and the Gouvernement du Québec Concerning the Harmonization and Integration of Cap-and-Trade Programs Reducing Greenhouse Gas Emissions, in accordance with the direction in CARB Board Resolution 13-7 (CARB 2013b).

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<sup>1</sup> For example: State and Local Climate and Energy Program: <http://www.epa.gov/statelocalclimate/index.html>.

## State

California has adopted various administrative initiatives and also enacted a variety of legislation relating to climate change, much of which sets aggressive goals for GHG emissions reductions within the state. However, none of this legislation provides definitive direction regarding the treatment of climate change in environmental review documents prepared under CEQA. In particular, the amendments to the CEQA Guidelines do not require or suggest specific methodologies for performing an assessment or thresholds of significance, and do not specify GHG reduction mitigation measures. Instead, the CEQA amendments continue to rely on lead agencies to choose methodologies and make significance determinations based on substantial evidence, as discussed in further detail below (CNRA 2009a). In addition, no state agency has promulgated binding regulations for analyzing GHG emissions, determining their significance, or mitigating any significant effects in CEQA documents. Thus, lead agencies exercise their discretion determining how to analyze GHGs.

The discussion below provides a brief overview of CARB and OPR documents and of the primary legislation that relates to climate change that may affect the emissions associated with the proposed project. It begins with an overview of the primary regulatory acts that have driven GHG regulation and analysis in California.

### Assembly Bill 32

The California Global Warming Solutions Act of 2006 (AB 32) was signed into law in September 2006 after considerable study and expert testimony before the legislature. The law instructs CARB to develop and enforce regulations for the reporting and verifying of statewide GHG emissions. The Act directed CARB to set a GHG emission limit based on 1990 levels to be achieved by 2020. The bill set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner (AB 32).

The heart of the bill is the requirement that statewide GHG emissions be reduced to 1990 levels by 2020. Based on CARB's calculation of California's 1990 emissions levels, California must reduce GHG emissions by approximately 28.5percent below "business-as-usual" (BAU) predictions of year 2020 GHG emissions to achieve this goal. The bill required CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions. CARB has accomplished key milestones set forth in AB 32, including the following:

- June 30, 2007. Identification of discrete early action GHG emissions reduction measures. On June 21, 2007, CARB satisfied this requirement by approving three early action measures (CARB 2007b). These were later supplemented by adding six other discrete early action measures (CARB 2007c).
- January 1, 2008. Identification of the 1990 GHG emissions level and approval of a statewide limit equivalent to that level and adoption of reporting and verification requirements concerning GHG emissions. On December 6, 2007, CARB approved a



statewide limit on GHG emissions levels for the year 2020 consistent with the determined 1990 emissions inventory (CARB 2007a).

- January 1, 2009. Adoption of a scoping plan for achieving GHG emission reductions. On December 11, 2008, CARB adopted Climate Change Scoping Plan: A Framework for Change (Scoping Plan), discussed in more detail below (CARB 2008a).
- January 1, 2010. Adoption and enforcement of regulations to implement the "discrete" actions. Several early action measures have been adopted and became effective on January 1, 2010 (CARB 2007b, CARB 2007c).
- January 1, 2011. Adoption of GHG emissions limits and reduction measures by regulation. On October 28, 2010, CARB released its proposed cap-and-trade regulations, which would cover sources of approximately 85 percent of California's GHG emissions (CARB 2010c). CARB's Board ordered CARB's Executive Director to prepare a final regulatory package for cap-and-trade on December 16, 2010 (CARB 2010d).
- January 1, 2012. GHG emissions limits and reduction measures adopted in 2011 became enforceable.
- On January 1, 2015, cap-and-trade compliance obligations are phased in for suppliers of natural gas, reformulated gasoline blendstock for oxygenate blending (RBOB), distillate fuel oils, and liquefied petroleum gas, with emissions that meet or exceed specified emissions thresholds.

As noted above, on December 11, 2008, CARB adopted the Scoping Plan to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions for various categories of emissions. CARB determined that achieving the 1990 emission levels would require a reduction of GHG emissions of by approximately 28.5 percent to achieve 2020 emissions levels in the absence of new laws and regulations (referred to as "business as usual"(BAU)). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction measures by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a Cap-and-Trade Program. The key elements of the Scoping Plan include: (CARB 2008a)

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards
- Achieving a statewide renewable 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 and caps sources contributing 85 percent of California's GHG emissions
- Establishing targets for transportation-related GHG 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
- 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 of California's long-term commitment to AB 32 implementation

In 2009, a coalition of environmental groups brought a challenge to the Scoping Plan alleging that it violated AB 32 and that the environmental review document (called a "Functional Equivalent Document") violated CEQA by failing to appropriately analyze alternatives to the proposed Cap-and-Trade Program. On May 20, 2011, the San Francisco Superior Court entered a final judgment ordering that CARB take no further action with respect to cap-and-trade rulemaking until it complies with CEQA (AIR 2011). CARB appealed the decision on May 23, 2011 (CARB 2011d). The portions of the Scoping Plan that do not relate to cap and trade remained valid during the litigation. While the appeal was pending, CARB prepared a supplement to the Functional Equivalent Document that included the analysis that the trial court had determined was inadequate under CEQA. CARB certified the supplement to the Functional Equivalent document and readopted the Scoping Plan on August 24, 2011 (CARB 2011e). On June 19, 2012, the California First District Court of Appeal upheld the Scoping Plan and affirmed CARB's approval of the Scoping Plan as in compliance with AB 32 (AIR 2012).

In connection with preparation of the supplement to the Functional Equivalent Document, CARB released revised estimates of the expected 2020 emission reductions in consideration of the economic recession and the availability of updated information from development of measure-specific regulations. Incorporation of revised estimates in consideration of the economic recession reduced the projected 2020 emissions from 596 MMTCO<sub>2e</sub> to 545 MMTCO<sub>2e</sub> (CARB 2011c). Under this scenario, achieving the 1990 emissions level would require a reduction of GHG emissions of 118 MMTCO<sub>2e</sub>, or 21.7 percent (down from 28.5 percent), to achieve in 2020 emissions levels in the BAU condition. CARB also updated its BAU evaluation to account for new laws and regulations mandating GHG reductions that had been implemented subsequent to the original Scoping Plan, such as the cleaner car mandates required by Pavley (vehicle model-years 2009 - 2016) and the renewable portfolio standard (12% - 20%). Inclusion of these new GHG mandates further reduced the 2020 projected estimate of GHG emissions to 507 MMTCO<sub>2e</sub>. As a result, based on both the economic recession and new GHG reduction implementation mandates, CARB determined in 2011 that achieving the 1990 emission level (and 2020 emissions limit of 427 MMTCO<sub>2e</sub>) would require a reduction of GHG emissions of 80 MMTCO<sub>2e</sub> or a reduction by approximately 15.8 percent (down from 28.5 percent) to achieve 2020 emissions levels in the BAU condition (CARB 2011c).

On October 1, 2013, CARB released a discussion draft of the first update to the Scoping Plan. The discussion draft recalculates the 1990 GHG emissions level using the IPCC Fourth Assessment Report (AR4) released in 2007. The first draft update to the Scoping Plan states that based on the AR4 global warming potentials, the 427 MMTCO<sub>2e</sub> 1990 emissions level and 2020 GHG emissions limit would be slightly higher than identified in the Scoping Plan, at 431

MMTCO<sub>2</sub>e (CARB 2013b). Based on (1) the revised estimates of expected 2020 emissions identified in the 2011 supplement to the Functional Environmental Document, and (2) updated 1990 emissions levels identified in the draft first update to the Scoping Plan, achieving the 1990 emissions level would require a reduction of 78 MMTCO<sub>2</sub>e from the 509 MMTCO<sub>2</sub>e BAU level, or a reduction of approximately 15.3 percent (down from 28.5 percent) to meet the 431 MMTCO<sub>2</sub>e goal (CARB 2011c, 2013).

On February 10, 2014, CARB released the Draft Proposed First Update to the Climate Change Scoping Plan.<sup>2</sup> The board approved the final “First Update to the Climate Change Scoping Plan” on May 22, 2014. The first update describes California’s progress towards AB 32 goals stating that “California is on track to meet the near-term 2020 greenhouse gas limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32.” Specifically, “if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts [MW] of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under AB 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80 percent below 1990 levels by 2050.”<sup>3</sup> This first update retains from the October 2013 draft the recalculated 1990 GHG emissions level of 431 MMTCO<sub>2</sub>e, as well as the 509 MMTCO<sub>2</sub>e 2020 BAU condition (CARB 2014). Thus, under CARB’s most current document, reducing the BAU condition of 509 MMTCO<sub>2</sub>e to the 1990 emissions level of 431 MMTCO<sub>2</sub>e will require a reduction of 78 MMTCO<sub>2</sub>e, or approximately a 15.3 percent reduction (compared to a 28.5 percent reduction as set forth in the original Scoping Plan).

*Senate Bill 375 and SCAG Regional Transportation Plan/Sustainable Community Plan*

SB 375 provides for a new planning process to coordinate land use planning, regional transportation plans, and funding priorities in order to help California meet the GHG reduction goals established in AB 32 (SB 375). SB 375 includes provisions for streamlined CEQA review for some infill projects such as transit-oriented development. SB 375 also requires Metropolitan Planning Organizations (MPOs) relevant to the project area (including the Southern California Association of Governments (SCAG)) to incorporate a "sustainable communities strategy" (SCS) into their regional transportation plans (RTPs) that will achieve GHG emission reduction targets by reducing vehicle miles traveled (VMT) from light duty vehicles through development of more compact, complete, and efficient communities. This VMT reduction goal is the reduction goal most targeted at the land use decision making at issue in the County's determination of approving the project.

SB 375 is similar to the Regional Blueprint Planning Program established by the California Department of Transportation, which provides discretionary grants to fund regional

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<sup>2</sup> California Air Resources Board, Proposed First Update to the Climate Change Scoping Plan: Building on the Framework, February 2014 (Available at [http://www.arb.ca.gov/cc/scopingplan/2013\\_update/draft\\_proposed\\_first\\_update.pdf](http://www.arb.ca.gov/cc/scopingplan/2013_update/draft_proposed_first_update.pdf), accessed April 7, 2014.)

<sup>3</sup> California Air Resources Board, First Update to the Climate Change Scoping Plan. May 2014. Available at: [http://www.arb.ca.gov/cc/scopingplan/2013\\_update/first\\_update\\_climate\\_change\\_scoping\\_plan.pdf](http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf). Accessed: June 2014.

transportation and land use plans voluntarily developed by MPOs working in cooperation with Councils of Governments. The Scoping Plan adopted by CARB in December of 2008, relies on the requirements of SB 375 to implement the carbon emissions reductions anticipated from land use decisions.

On September 23, 2010, CARB adopted Regional Targets for the reduction of GHG applying to the years 2020 and 2035 (CARB 2010b). For the area under SCAG's jurisdiction including the project area, CARB adopted Regional Targets for reduction of GHG emissions by eight percent for 2020 and by 13 percent for 2035. On February 15, 2011, the CARB's Executive Officer approved the final targets (CARB 2011b).

SCAG's SCS is included in the SCAG 2016-2040 Regional Transportation Plan Sustainable Communities Strategy (RTP/SCS) (SCAG 2016). The document was adopted by SCAG on April 7, 2016. The goals and policies of the RTP/SCS that reduce VMT focus on transportation and land use planning that include building infill projects, locating residents closer to where they work and play and designing communities so there is access to high quality transit service. The 2016-2040 RTP/SCS would result in an eight percent reduction in greenhouse gas emissions per capita by 2020, an 18 percent reduction by 2035 and a 21 percent reduction by 2040—compared with 2005 levels. This meets or exceeds the state's mandated reductions established by the CARB and meets the requirements of SB 375 as codified in Government Code §65080(b) et seq., which are eight percent by 2020 and 13 percent by 2035. The 2016-2040 RTP/SCS is expected to reduce the number of VMT per capita by more than seven percent and Vehicle Hours Traveled (VHT) per capita by 17 percent (for automobiles and light/medium duty trucks) as a result of more location efficient land use patterns and improved transit service.

#### Senate Bill 605

On September 21, 2014, Governor Jerry Brown signed Senate Bill 605 (SB 605), which requires CARB to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants in the state no later than January 1, 2016. As defined in the statute, short-lived climate pollutant means "an agent that has a relatively short lifetime in the atmosphere, from a few days to a few decades, and a warming influence on the climate that is more potent than that of carbon dioxide." SB 605, however, does not prescribe specific compounds as short-lived climate pollutants or add to the list of GHGs regulated under AB 32. In developing the strategy, the CARB must complete an inventory of sources and emissions of short-lived climate pollutants in the state based on available data, identify research needs to address any data gaps, identify existing and potential new control measures to reduce emissions, and prioritize the development of new measures for short-lived climate pollutants that offer co-benefits by improving water quality or reducing other air pollutants that impact community health and benefit disadvantaged communities. The draft strategy released by CARB in September 2015 focuses on methane, black carbon, and fluorinated gases, particularly hydrofluorocarbons, as important short-lived climate pollutants. The draft strategy recognizes emission reduction efforts implemented under AB 32 (e.g., refrigerant management programs) and other regulatory programs (e.g., in-use diesel engines, solid waste diversion) along with

additional measures to be developed. At this time, CARB has not released its final strategy and it is not clear whether any of the projects emissions will be effected by the strategy but SB 605 is part of the larger statewide effort to reduce GHG emissions that will allow the state to meet its statewide GHG reduction goals. (SB 605)

*Executive Order S-3-05 (Statewide GHG Targets)*

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05, which proclaimed that California is vulnerable to the impacts of climate change. It declared that increased temperatures could reduce snowpack in the Sierra Nevada Mountains; could further exacerbate California's air quality problems; and could potentially cause a rise in sea levels. In an effort to avoid or reduce the impacts of climate change, Executive Order S-3-05 called for a reduction in GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.<sup>4</sup>

As discussed in further detail below, executive orders do not have the same status as a law because in California's constitutional system, it is the Legislature, not the Governor, who is entrusted with the role of making statewide laws. (SAHMC 1997, p. 836; CA 1990.). The Legislature declined to include the Executive Order's 2050 goal in AB 32 (discussed below), and again declined to use the EO's 2050 goal in adopting SB 375 (discussed below); nor has it incorporated it in any implementing legislation or applicable plans. Additionally, although CARB has the requisite authority to adopt whatever regulations are necessary beyond the AB 32 horizon year 2020 to meet the target set forth in S-3-05, the agency has not done so. Since the Legislature has never enacted EO S-3-05's 2050 target, and no expert agency has interpreted CEQA to require it, the 2050 target has only the force and effect of an executive order issued by a former Governor. There is no authority that suggests that the constitutional authority to establish CEQA significance thresholds resides in the Governor. CEQA is a statute, and the authority to amend and revise its requirements falls first to the Legislature. The Legislature alone has the authority to enact, amend, or revise legislation, absent some express delegation of authority to the Governor or an executive branch agency through statutory enactments. (PECG 2010, p. 1015.) If the Legislature has delegated any of its authority to define CEQA's requirements, it delegated that authority to OPR and not to the Governor's office.

Moreover, CARB's Scoping Plan to implement AB 32 looked beyond 2020 to assess whether implementing the Scoping Plan would achieve the State's long-term climate goals and determined that it would: "Climate scientists tell us that the 2050 target represents the level of greenhouse gas emissions that advanced economies must reach if the climate is to be stabilized in the latter half of the 21st century. Full implementation of the Scoping Plan will put California on a path toward these required long-term reductions. Just as importantly, it will put into place many of the measures needed to keep us on that path." (CARB 2008a, p.117.) The 2014 Scoping Plan Update confirms this: "California is on track to meet the near-term 2020 greenhouse gas limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32"; and it recognizes the potential for California to "reduce emissions by

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<sup>4</sup> <https://www.gov.ca.gov/news.php?id=1861>

2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80 percent below 1990 levels by 2050." (CARB 2014, p. 2.) However, the 2014 Scoping Plan Update also concludes that additional actions will be needed to continue reducing emissions and meet the 2050 goals in the face of anticipated population and economic growth. (CARB 2014) In fact, overwhelming scientific evidence supports the conclusion that significant technological innovation, well beyond the scope of an individual development project, are absolutely necessary components of any plausible path to achieving the EO S-3-05's 2050 target. These new innovations to change fuel technology and energy generation are entirely outside the jurisdiction and control of the County. Achieving these goals will require wholesale shifts in fuel and energy technology, neither of which are currently available, rendering any further analysis of a given development project's impacts relative to the 2050 target too speculative for purposes of determining CEQA significance.

*Executive Order B-30-15 (Statewide Interim GHG Targets)*

California EO B-30-15 (April 29, 2015) set an "interim" statewide emission target to reduce greenhouse emissions to 40 percent below 1990 levels by 2030, and directed state agencies with jurisdiction over greenhouse gas emissions to implement measures pursuant to statutory authority to achieve this 2030 target and the 2050 target of 80 percent below 1990 levels.<sup>5</sup> Specifically, the Executive Order directed CARB to update the Scoping Plan to express this 2030 target in metric tons. Since CARB has not yet prepared a GHG Inventory for 2030, it is not possible to prepare a numeric analysis that incorporates the 2030 target. This new Executive Order is subject to all the same limitations and infeasibility as discussed above for EO S-03-05. However, EO B-30-15 is more specific in its direction to state agencies so it remains to be seen how it will be implemented, and like EO S-3-05, neither CARB nor the legislature have incorporated the target set forth in B-30-15 in any implementing legislation or applicable plans. However, SB 350 was signed into law and (discussed below) it requires the state to double energy efficiency savings in electricity and natural gas by retail customers by 2030 and raises the Renewable Portfolio Standard (RPS) so that half of the state's electricity must be procured from renewable sources by 2030.

**CEQA Guidelines**

*Senate Bill 97 (CEQA Guidelines)*

SB 97 required OPR to prepare amended CEQA Guidelines for submission to the CNRA regarding GHG analysis and feasible mitigation of the effects of GHG emissions as required by CEQA. These amendments became effective as of March 18, 2010. The adoption of SB 97 and subsequent CEQA amendments are widely recognized as confirmation that lead agencies are required to include an analysis of climate change impacts in CEQA documents. *CEQA Guidelines GHG Amendments*

The CEQA Guidelines GHG Amendments adopted pursuant to SB 97 state in Section 15064.4(a) that lead agencies should "make a good faith effort, based to the extent possible on

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<sup>5</sup> [https://www.gov.ca.gov/docs/4.1.15\\_Executive\\_Order.pdf](https://www.gov.ca.gov/docs/4.1.15_Executive_Order.pdf)

scientific and factual data, to describe, calculate or estimate" GHG emissions. Section 15064.4(a) notes that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or other performance based standards" (CNRA 2009a). Section 15064.4(b) provides that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment:

- The extent a project may increase or reduce GHG emissions as compared to the environmental setting
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project
- 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 GHG emissions (CNRA 2009a)

In addition, Section 15064.7(c) of the CEQA Amendments specifies that "[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (CNRA 2009a). Similarly, the revision to Appendix G, Environmental Checklist Form which is often used as a basis for lead agencies' selection of significance thresholds, does not prescribe specific thresholds. Rather, Appendix G asks whether the project would conflict with a plan, policy, or regulation adopted to reduce GHG emissions or generate GHG emissions that would significantly affect the environment, indicating that the determination of what is a significant effect on the environment should be left to the lead agency.

Accordingly, the CEQA Amendments do not prescribe specific methodologies for performing an assessment of GHG impacts, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Amendments emphasize the lead agency's discretion to determine the appropriate thresholds of significance consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009a).

The CEQA Amendments indicate that lead agencies should consider all feasible means, supported by substantial evidence and subject to monitoring and reporting, of mitigating the significant effects of GHG emissions. As pertinent to a project, these potential mitigation measures set forth in Section 15126.4(c), may include (1) measures in an existing plan or mitigation program for the reduction of GHG emissions that are required as part of the lead agency's decision; (2) reductions in GHG emissions resulting from a project through implementation of project design features; (3) off-site measures, including offsets, to mitigate a project's emissions; and (4) carbon sequestration measures (CNRA 2009a).

Among other things, the CRNA noted in its Public Notice for these changes that impacts of GHG emissions should focus on the cumulative impact on climate change. The Public Notice states: (CNRA 2009b)

*While the Proposed Amendments do not foreclose the possibility that a single project may result in greenhouse gas emissions with a direct impact on the environment, the evidence before [CRNA] indicates that in most cases, the impact will be cumulative. Therefore, the Proposed Amendments emphasize that the analysis of greenhouse gas emissions should center on whether a project's incremental contribution of greenhouse gas emissions is cumulatively considerable.*

Thus, the CEQA Amendments continue to make clear that the significance of GHG emissions is most appropriately considered on a cumulative level.

### **Energy-Related Sources**

#### Renewable Portfolio Standards (SB 1078, SB 107, and SBX1-2)

Established in 2002 under SB 1078, accelerated in 2006 under SB 107 and again in 2011 under SBX1-2, California's Renewable Portfolio Standard (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020 (SB 1078, SB 1368, AIR 2011). The 33 percent standard is consistent with the RPS goal established in the Scoping Plan (CARB 2008a). As interim measures, the RPS requires 20 percent of retail sales to be sourced from renewable energy by 2013 and 25 percent by 2016. Initially, the RPS provisions applied to investor-owned utilities, community choice aggregators, and electric service providers. SBX1-2 added, for the first time, publicly owned utilities to the entities subject to RPS.

#### Senate Bill 1

Senate Bill 1 of 2006 (SB 1) established the statewide California Solar Initiative, also required the California Energy Commission (CEC) to implement regulations that required sellers of production homes to offer a solar energy system option to all prospective homebuyers. Besides offering solar as an option to prospective homebuyers, sellers of homes constructed on land for which an application for a tentative subdivision map has been deemed complete on or after January 1, 2011, must disclose to the prospective homebuyer the total installed cost of the solar option, the estimated cost savings associated with the solar energy system option, information about California solar energy system incentives, and information about the Go Solar California website. Sellers of production homes affected by this law may opt for the solar offset program rather than offer solar as an option to prospective homebuyers. The solar offset program requires sellers to install a solar system elsewhere which is equivalent to the aggregate capacity of solar that would have been installed in an affected subdivision if 20% of the buyers had opted for the solar option.

#### Assembly Bill 1109

Assembly Bill 1109 (AB 1109), the Lighting Efficiency and Toxic Reduction Act, required the establishment of minimum energy efficiency standards for all general purpose lights. The



standards are structured to reduce average statewide electrical energy consumption by not less than 50 percent from the 2007 levels for indoor residential lighting and not less than 25 percent from the 2007 levels for indoor commercial and outdoor lighting by 2018.

#### Senate Bill 350

Senate Bill 350 (SB 350), signed October 7, 2015, is the *Clean Energy and Pollution Reduction Act of 2015*. SB 350 is the implementation of some of the goals of EO B-30-15. The objectives of SB 350 are,

- 1) To increase from 33 percent to 50 percent, the procurement of our electricity from renewable sources.
- 2) To double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.

#### GHG Emissions Standard for Baseload Generation (SB 1368)

Senate Bill 1368 (SB 1368) (September 29, 2006) prohibits any retail seller of electricity in California from entering into a long-term financial commitment for baseload generation if the GHG emissions are higher than those from a combined-cycle natural gas power plant. This performance standard applies to electricity generated both within and outside of California and to publicly owned as well as investor-owned electric utilities.

### **Mobile Sources**

#### Mobile Source Reductions (AB 1493)

Assembly Bill 1493 ("the Pavley Standard" or AB 1493) required CARB to adopt regulations by January 1, 2005, to reduce GHG emissions from non-commercial passenger vehicles and light-duty trucks of model year 2009 through 2016. The bill also required the California Climate Action Registry to develop and adopt protocols for the reporting and certification of GHG emissions reductions from mobile sources for use by CARB in granting emission reduction credits. The bill authorizes CARB to grant emission reduction credits for reductions of GHG emissions prior to the date of enforcement of regulations, using model year 2000 as the starting point for reduction.

In 2004, CARB applied to the USEPA for a waiver under the federal Clean Air Act to authorize implementation of these regulations. The waiver request was formally denied by the USEPA in December 2007 after California filed suit to prompt federal action. In January 2008, the State Attorney General filed a new lawsuit against the USEPA for denying California's request for a waiver to regulate and limit GHG emissions from these vehicles. In January 2009, President Barack Obama issued a directive to the USEPA to reconsider California's request for a waiver. On June 30, 2009, the USEPA granted the waiver to California for its GHG emission standards for motor vehicles. As part of this waiver, USEPA specified the following provision: CARB may not hold a manufacturer liable or responsible for any noncompliance caused by emission debits generated by a manufacturer for the 2009 model year. CARB has adopted a new approach to passenger vehicles (cars and light trucks) by combining the control of smog-causing pollutants and GHG emissions into a single coordinated package of standards. The

new approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emission vehicles in California. These standards will apply to all passenger and light duty trucks used by customers, employees of and deliveries to the proposed Project.

#### Low Carbon Fuel Standard

Executive Order S-01-07 (January 18, 2007) requires a 10 percent or greater reduction in the average fuel carbon intensity for transportation fuels in California regulated by CARB. CARB identified the Low Carbon Fuel Standard (LCFS) as a Discrete Early Action item under AB 32 and the final resolution (09-31) was issued on April 23, 2009 (CARB 2009). In 2009, CARB approved for adoption the LCFS regulation which became fully effective in April 2010 and is codified at Title 17, CCR, Sections 95480-95490. The LCFS will reduce greenhouse gas emissions by reducing the carbon intensity of transportation fuels used in California by at least 10 percent by 2020. Carbon intensity is a measure of the GHG emissions associated with the various production, distribution, and use steps in the "lifecycle" of a transportation fuel. On December 29, 2011, the U.S. District Court for the Eastern District of California issued several rulings in the federal lawsuits challenging the LCFS. Opponents argued that the LCFS violates the Supremacy Clause (US Constitution, Article VI, Clause 2)<sup>6</sup> and Commerce Clause (US Constitution, Article-1, Section 8, Clause 3)<sup>7</sup> of the U.S. Constitution by discriminating against fuel produced out-of-state. One of the district court's rulings preliminarily enjoined CARB from enforcing the regulation. One of the district court's rulings preliminarily enjoined the CARB from enforcing the regulation. In January 2012, CARB appealed that decision to the Ninth Circuit Court of Appeals. On September 18, 2013, the Ninth Circuit issued its decision affirming the District Court's conclusion that LCFS ethanol and initial crude-oil provisions are not facially discriminatory, but remanded to the District Court to determine whether the LCFS ethanol provisions are discriminatory in purpose and effect. Additionally, the Ninth Circuit remanded to the District Court with instructions to vacate the preliminary injunction against CARB's enforcement of the regulation (Rocky Mountain).

On January 22, 2014, the Ninth Circuit denied a petition to rehear the case en banc. On March 20, 2014, Petitioners Rocky Mountain Farmers Union petitioned for a Writ of Certiorari to the United States Supreme Court in this case. As of April 2, 2014, this petition has not yet been granted.

#### Advanced Clean Cars

In January 2012, CARB approved the Advanced Clean Cars Program, a new emissions-control program for model year 2017 through 2025.

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<sup>6</sup> The Supremacy Clause establishes the U.S. Constitution, federal statutes, and the U.S. Treaties as "the supreme law of the land," establishing that federal laws take precedence over state laws.

<sup>7</sup> The Commerce Clause grants the federal government the authority "To regulate Commerce within foreign Nations, and among the several States and with the Indian Tribes." Case law has determined that pollution and hazardous materials can be considered "commerce" because they can be produced in one state but dispersed or transported to other states.

The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles. By 2025, when the rules will be fully implemented, the new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

The program also requires car manufacturers to offer for sale an increasing number of zero-emission vehicles (ZEVs) each year, including battery electric, fuel cell, and plug-in hybrid electric vehicles.

In December 2012, CARB adopted regulations allowing car manufacturers to comply with California's GHG emissions requirements for model years 2017-2025 through compliance with the EPA GHG requirements for those same model years (CARB, 2012b).

#### Transportation Fuel: Phased-In Cap-and-Trade Compliance Obligation

Pursuant to AB 32, CARB was allowed, but not required, to include among mechanisms intended to reduce GHG emissions a "system of market-based declining annual aggregate emission limits." As noted above, CARB developed a Scoping Plan that directed CARB staff to develop, among other programs, a cap-and-trade mechanism that would apply a declining aggregate cap on GHG emissions and provide a flexible compliance system using tradable instruments. On October 20, 2011, CARB adopted the final cap-and-trade regulation (CCR Title 17, Subchapter 10, Article 5). The program will impose a "cap" on the total GHG emissions from covered entities in the state and the quantity of emissions allowed under the cap will decrease each year, ultimately reaching the goal of returning state-wide GHG emissions to 1990 levels by 2020. The quantity of allowed emissions actually increases between 2014 and 2015, but that is to account for the addition of the fuel importers and distributors and additional electricity importers to the program as discussed below. The net effect is to reduce overall GHG emissions.

The Cap-and-Trade Program started on January 1, 2012 and will proceed in "compliance phases," the first of which began on January 1, 2013. In the first phase, the program applies to electric utilities, importers of electricity, and specified industries, including refineries. Approximately 350 electric utilities and approximately 600 industrial facilities were included in the initial phase of the program. In 2015, importers and distributors of fossil fuels were added to the program in the second phase. Specifically, on January 1, 2015, cap-and-trade compliance obligations were phased in for suppliers of natural gas, reformulated gasoline blendstock for oxygenate blending (RBOB), distillate fuel oils, and liquefied petroleum gas that meet or exceed specified emissions thresholds. The threshold that triggers a cap-and-trade compliance obligation for a fuel supplier is 25,000 metric tonnes or more of CO<sub>2</sub>e annually from the GHG emissions that would result from full combustion or oxidation of quantities of fuels (including natural gas, RBOB, distillate fuel oil, liquefied petroleum gas, and blended fuels that contain these fuels) imported and/or delivered to California. Phasing in of cap-and-trade compliance obligations for transportation fuel providers further reduces GHG emissions attributable to mobile sources, beyond the GHG emissions reductions achieved by the Pavley Standard, LCFS, and Advanced Clean Cars Program discussed above. This analysis does not

incorporate GHG emissions reductions based on cap-and-trade compliance obligations applicable to transportation fuel suppliers.

#### Heavy-duty Vehicle Greenhouse Gas Regulation

In December 2008, CARB adopted the Heavy-duty Vehicle Greenhouse Gas Regulation (HDV GHG Regulation) to reduce GHG emissions by improving the fuel efficiency of heavy-duty tractors that pull 53-foot or longer box-type trailers. Fuel efficiency is improved through improvements in tractor and trailer aerodynamics and the use of low rolling resistance tires. The tractors and trailers subject to this regulation must use USEPA SmartWay certified tractors and trailers, or retrofit their existing fleet with SmartWay verified technologies. Trucks serving the Project that are not drayage trucks will be regulated under this statute and required to comply with SmartWay standards to reduce GHG emissions. As part of the regulatory package for the HDV GHG Regulation, CARB also reviewed and implemented the Drayage Truck Regulation and Truck and Bus Regulation. These three regulations were collectively adopted to address emissions from trucks (CARB 2010a).

#### Drayage Truck Regulation

The Drayage Truck Regulation is part of the CARB's ongoing efforts to reduce PM and NO<sub>x</sub> emissions from diesel-fueled engines and improve air quality associated with goods movement. All truck trips from the port to the Project are drayage trips (Title 13 CCR §2027(15)). According to CARB, this regulation is designed to support local emissions reduction goals such as the Clean Air Action Plan (CAAP) by the ports of Los Angeles and Long Beach. Phase II of the regulation required that after December 31, 2013, all drayage trucks must be equipped with a 1994 or newer model year engine that meets or exceeds 2007 model year California or federal emission standards. Thus, all the incoming drayage trucks from the Port will have to meet the Phase II requirement.

#### Warehouse Mobile Equipment Regulation

The Project will use on-site equipment (forklifts, etc.) which cause some GHG emissions. This equipment is highly regulated to protect indoor air quality and worker health and safety. California's Division of Occupational Safety and Health (OSHA) sets and enforces limits for exposure to chemicals in the workplace. There are Permissible Exposure Limits (PELs) for some main components of diesel exhaust including carbon monoxide and polycyclic aromatic hydrocarbons (PAHs). Indoor air quality regulations include California Health & Safety Code §105405, §105425, §39930, §41985—41986 and California Labor Code §142.3 which involve research, safety, monitoring, and emissions standards. These regulations reduce overall emissions, which has a corresponding benefit to GHG reductions.

## **Building Standards**

### *Green Building Code (California Code of Regulations, Title 24)*

Energy Conservation Standards for new residential and commercial buildings were originally adopted by the California Energy Resources Conservation and Development Commission in June 1977 and most recently revised in 2013 (Title 24 CCR Part 6 [CCR, 2008]). In general, 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. The 2012 Appliance Efficiency Regulations (Title 20 CCR §1601-1608) dated October 2012, were adopted by the California Energy Commission on January 12, 2012, and were effective as of February 1, 2013. The regulations include standards for both federally-regulated appliances and non-federally regulated appliances. While these regulations are now often seen as "business as usual" in California, they do exceed the standards imposed by any other state and reduce GHG emissions by reducing energy demand.

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11, Title 24) was adopted as part of the California Building Standards Code (Title 24 CCR). Part 11 established voluntary standards on planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. Some of these standards became mandatory in Part 11 of the 2010 edition of the Code (CalGreen 2010). One provision that is mandatory in 2010 is the regulation to reduce indoor potable water use by 20 percent using water saving fixtures and/or flow restrictors which is included in the water use and emissions estimate for the project.

The California Energy Commission adopted changes to the 2013 Building Energy Efficiency Standards contained in Title 24 CCR Part 6 (also known as the California Energy Code) and associated administrative regulations in Part 1 (collectively referred to here as the Standards). The 2013 Building Energy Efficiency Standards are 25 percent more efficient than previous standards for residential construction and 30 percent better for nonresidential construction (CBSC 2012). The standards will offer builders better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses. Title 24 CCR Part 6 was originally scheduled to go into effect on January 1, 2014, but was revised to go into effect on July 1, 2014 (CBSC 2013).

The California Green Building Standards Code requires waste reduction measures including: providing readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of nonhazardous materials for recycling, and a minimum 50 percent diversion of construction and demolition waste from landfills. Water reduction measures include: a 20 percent mandatory reduction in indoor water use; separate water meters for buildings in excess of 50,000 square feet; moisture-sensing irrigation systems for larger landscaped areas; and the reduction of generation of wastewater by either installing water-

conserving fixtures or using non-potable water systems. Pollution reduction measures include requiring low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particleboard. Mandatory inspections of energy systems (i.e., heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet are required to ensure that all are working at their maximum capacity according to their design efficiencies. The Code also requires long-term bicycle parking for buildings with over 10 tenant-occupants by providing secure bicycle parking for 5 percent of the tenant-occupied motorized vehicle parking capacity, and requires designated parking in commercial projects for any combination of low-emitting, fuel-efficient and carpool/vanpool vehicles to encourage alternative transportation methods.

### **Waste Diversion**

#### *California Integrated Waste Management Act of 1989*

The California Integrated Waste Management Act of 1989 (Public Resources Code Sections 40000 et seq.) requires each jurisdiction's source reduction and recycling element to include an implementation schedule that shows (1) diversion of 25 percent of all solid waste by January 1, 1995, through source reduction, recycling, and composting activities; and (2) diversion of 50 percent of all solid waste on and after January 1, 2000, through source reduction, recycling, and composting facilities.<sup>8</sup> Additionally, jurisdictions are not prohibited from implementing source reduction, recycling, and composting activities designed to exceed these requirements.<sup>9</sup>

AB 341 (2011) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75 percent of solid waste generated be source reduced, recycled, or composted by the year 2020, and annually thereafter.<sup>10</sup> In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the state's policy goal.<sup>11</sup> CalRecycle conducted several stakeholder workshops and published a discussion document in May 2012 titled *California's New Goal: 75 Percent Recycling*, which identifies concepts that CalRecycle believes would assist the state in reaching the 75 percent goal by 2020.<sup>12</sup>

### **Other Potentially Applicable State Regulations or Policies**

#### *Executive Order S-13-08*

On November 14, 2008, Governor Arnold Schwarzenegger signed Executive Order S-13-08 which called on state agencies to develop a strategy for identification of and preparation for expected climate change impacts in California. The resulting 2009 California Climate

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<sup>8</sup> Cal. Pub. Res. Code § 41780(a).

<sup>9</sup> Cal. Pub. Res. Code § 41780(b).

<sup>10</sup> Cal. Pub. Res. Code § 41780.01(a).

<sup>11</sup> Cal. Pub. Res. Code § 41780.02.

<sup>12</sup> Available online at <http://www.calrecycle.ca.gov/75percent/Plan.pdf> (last accessed September 2013).

Adaptation Strategy (CAS) report was developed by the CNRA in coordination with the CAT. The report presents the best available science relevant to climate impacts in California and proposes a set of recommendations for California decision-makers to assess vulnerability and promote resiliency in order to reduce California's vulnerability to climate change. Guidance regarding adaptation strategies is general in nature and emphasizes incorporation of strategies into existing planning policies and processes.

In addition to requiring the CAT to create a Climate Adaptation Strategy, Executive Order S-13-08 ordered the creation of a comprehensive Sea Level Rise Assessment Report. The report, published in June 2012, indicates that the sea level along most of California's coast is expected to rise about one meter over the next century and is likely to increase the risk of damage in the form of flooding, coastal erosion, and wetland loss due to storm surges and high waves. The sea level increase is slightly higher than projected for global sea levels (NRC, 2012; ONPI 2012).

Executive Order S-13-08 also called for the California Ocean Protection Council (OPC) to work with the other CAT State agencies to develop interim guidance for assessing the potential impacts of sea level rise due to climate change in California. In coordination with National Academy of Sciences (NAS) efforts, the OPC drafted interim guidance recommending that state agencies consider a range of sea level rise scenarios for the years 2050 and 2100 in order to assess project vulnerability, reduce expected risks, and increase resiliency to sea level rise. The draft resolution and interim guidance document is consistent with the Ocean Protection Act (Division 26.5, Public Resource Code Section 3561 5(a)(1)), which specifically directs the OPC to coordinate activities of state agencies to improve the effectiveness of state efforts to protect ocean resources. An update to the 2009 CAS report, the final "Safeguarding California Plan," was published in July 2014.<sup>13</sup>

#### Assembly Bill 1613 (Waste Heat and Carbon Emissions Reduction Act)

AB 1613 directed the CEC, the CPUC, and CARB to implement the Waste Heat and Carbon Emissions Reduction Act, which is designed to encourage development of new combined heat and power (CHP) systems in California with a generating capacity of not more than 20 megawatts. In June 2010, the CEC published modified final guidelines establishing technical criteria for eligibility of CHP systems for programs to be developed by the CPUC and publicly owned utilities (CEC, 2010). Section 2843 of the Act provides that the CEC's guidelines require that CHP systems:

- Be designed to reduce waste energy
- Have a minimum efficiency of 60%
- Have NO<sub>x</sub> emissions of no more than 0.07 pounds per megawatt-hour
- Be sized to meet the eligible customer generation thermal load

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<sup>13</sup> State of California, [http://resources.ca.gov/docs/climate/Final\\_Safeguarding\\_CA\\_Plan\\_July\\_31\\_2014.pdf](http://resources.ca.gov/docs/climate/Final_Safeguarding_CA_Plan_July_31_2014.pdf).

- Operate continuously in a manner that meets the expected thermal load and optimizes the efficient use of waste heat
- Be cost-effective, technologically feasible, and environmentally beneficial

As directed by AB 1613, the CPUC also established (1) a standard tariff for the sale of electricity to electricity corporations for delivery to the electrical grid (State of California, 2013a); and (2) a "pay as you save" pilot program requiring electricity corporations to finance the installation of qualifying CHP systems by non-profit and government entities. A January 2011 decision by an administrative law judge determined that the pilot program will not be established due to lack of customer interest and difficulties in instituting a program that meets California Department of Corporations requirements (Decision 11 -01 -010 Before the Public Utilities Commission of the State of California, 2011).

Senate Bill X7 7 (Water Conservation Act of 2009)

The Water Conservation Act of 2009 sets an overall goal of reducing per-capita urban water use by 20 percent by December 31, 2020. The state was required to make incremental progress toward this goal by reducing per-capita water use by at least 10 percent by December 31, 2015. Reduction in water consumption directly reduces the energy necessary and the associated emissions to convey, treat, and distribute the water and it also reduces emissions from wastewater treatment.

The Department of Water Resources adopted a regulation on February 16, 2011 that sets forth criteria and methods for exclusion of industrial process water from the calculation of gross water use for purposes of urban water management planning. The regulation would apply to all urban retail water suppliers required to submit an Urban Water Management Plan, as set forth in the Water Code, Division 6, Part 2.6, Sections 10617 and 10620.

Model Water Efficient Landscape Ordinance

The Model Water Efficient Landscape Ordinance (Ordinance) was required by AB 1881, the Water Conservation Act. The bill required local agencies to adopt a local landscape ordinance at least as effective in conserving water as the Model Ordinance by January 1, 2010. Reductions in water use of 20 percent consistent with (SBX-7-7) 2020 mandate are expected upon compliance with the Ordinance. Governor Brown's Drought Executive Order of April 1, 2015 (EO B-29-15) directed DWR to update the Ordinance through expedited regulation. The California Water Commission approved the revised Ordinance on July 15, 2015 effective December 15, 2015. New development projects that include landscape areas of 500 square feet or more are subject to the Ordinance. The update requires: more efficient irrigation systems; incentives for graywater usage; improvements in on-site stormwater capture; limiting the portion of landscapes that can be planted with high water use plants; and reporting requirements for local agencies. The City amended its own Water Efficient Landscape Ordinance (WELO) on December 1, 2015 to be consistent with the State's WELO.



### CARB Refrigerant Management Program

The CARB adopted a regulation in 2009 to reduce refrigerant GHG emissions from stationary sources through refrigerant leak detection and monitoring, leak repair, system retirement and retrofitting, reporting and recordkeeping, and proper refrigerant cylinder use, sale, and disposal. The regulation is set forth in sections 95380 to 95398 of Title 17, California Code of Regulations. The rules implementing the regulation establish a limit on statewide GHG emissions from stationary facilities with refrigeration systems with more than 50 pounds of a high GWP refrigerant. The refrigerant management program is designed to (1) reduce emissions of high-GWP GHG refrigerants from leaky stationary, non-residential refrigeration equipment; (2) reduce emissions from the installation and servicing of refrigeration and air-conditioning appliances using high-GWP refrigerants; and (3) verify GHG emission reductions.

## **Regional**

### South Coast Air Quality Management District Policies

#### CEQA Guidelines and Proposed GHG Thresholds

SCAQMD is principally responsible for comprehensive air pollution control for Los Angeles, Orange, and the urbanized portions of Riverside and San Bernardino Counties, including the project site. SCAQMD works directly with SCAG, County transportation commissions and local governments, and cooperates actively with all federal and state government agencies to regulate air quality.

In April 2008, SCAQMD convened a Working Group to develop GHG significance thresholds. On December 5, 2008, the SCAQMD Governing Board adopted its staff proposal for an interim CEQA GHG significance threshold for projects where the SCAQMD is the lead agency. As to all other projects where the SCAQMD is not the lead agency, the Board has, to date, only adopted an interim threshold of 10,000 MTCO<sub>2</sub>E per year for industrial stationary source projects (SCAQMD 2008a).

For all other projects, SCAQMD staff proposed a multiple tier analysis to determine the appropriate threshold to be used. The draft proposal suggests the following tiers: Tier 1 is any applicable CEQA exemptions; Tier 2 is consistency with a GHG reduction plan; Tier 3 is a screening value or bright line; Tier 4 is a performance based standard; and Tier 5 is GHG mitigation offsets (SCAQMD 2008a). According to the presentation given at the September 28, 2010 Working Group meeting, SCAQMD staff proposed a Tier 3 draft threshold of 1,400 to 3,500 MT CO<sub>2</sub>e/year depending on if the project was commercial, mixed use, or residential. For the Tier 4 draft threshold, SCAQMD staff presented a percent emission reduction target option but did not provide any specific recommendation for a percent emission reduction target; instead it referenced the San Joaquin Valley Air Pollution Control District (SJVAPCD) approach. The percent reduction target is based on consistency with AB 32 as it was based on the same numeric reductions calculated in the Scoping Plan to reach 1990 levels by 2020. The second Tier 4 option is to utilize an efficiency target for 2020 of 4.8 metric tons per service population per year for project level thresholds (SCAQMD 2010).

The Working Group has not convened since the fall of 2010. As of April 2015, the proposal has not been considered or approved for use by the SCAQMD Board. In the meantime, no GHG significance thresholds are approved for use in the South Coast Air basin (Basin). Ports of Los Angeles and Long Beach

As explained above, the Inland Empire is the heart of the region's warehouse Goods Movement network for goods that enter the Ports and are moved east to the rest of the country. The goods that are unloaded at the Ports are transloaded at locations throughout the region before continuing east. There is a need for another 228 million square feet of warehousing space in the region by 2035 (SCAG 2012a). SCAG is undertaking significant efforts to improve the efficiency of the Goods Movement network which will reduce overall GHG emissions (SCAG 2012a).

The entire Goods Movement network is based on the Ports of Los Angeles/Long Beach (Ports of LA/LB) and all truck trips generated by the Project are conservatively assumed to come from the Ports of Los Angeles/Long Beach (Ports of LA/LB). The Ports have adopted several plans and policies to reduce GHG emissions as described below.

#### Green LA: An Action Plan to Lead the Nation in Fighting Global Warming

City of Los Angeles released its climate action plan, Green LA: An Action Plan to Lead the Nation in Fighting Global Warming, (Green LA Plan) in May 2007. (LA 2007a). The Green LA Plan is a voluntary program that sets a goal of reducing the City's GHG emissions to 35 percent below 1990 level by 2030. Climate LA is the implementation framework that contains the details of the more than fifty action items that are included in Green LA Plan. The measures the City of Los Angeles will take to achieve the 35 percent reduction goal include "greening" the Port of Los Angeles and the four airports operated by the City (including Los Angeles International Airport and Los Angeles/Ontario International Airport). Under the Port-specific actions called for by the Green LA Plan, in addition to the Drayage Truck Regulation discussed above, all heavy-duty trucks calling at the ports have been required to meet or exceed the USEPA 2007 heavy-duty vehicle on-road emissions standards for particulate matter since the end of 2011. The specific measures for developing the Port-Specific actions are included in the San Pedro Bay Ports Clean Air Action Plan (CAAP).

#### Port Emission Reduction Plans

The City of Los Angeles Harbor Department (the Port of LA) adopted a Climate Action Plan in 2007 (Port of LA CAP) which addresses emissions from associated trucks. The Port of LA CAP provides that the "landmark plan was developed to reduce criteria pollutant emissions from major tenant operations such as operation of heavy-duty vehicles/trucks, ocean-going vessels, harbor craft, cargo handling equipment, and railroad locomotives" (LA 2007b). The 2007 plan primarily focused upon municipal operations at the harbor but noted the opportunity to reduce emissions through the associated San Pedro Bay Ports Clean Action Air Plan, with which the Project is consistent as described below. (LA 2007b).

The Long Beach Sustainable City Action Plan is intended to guide operational, policy and financial decisions to create a more sustainable Long Beach. Transportation Initiative 4 is to

“Implement the CAAP, designed to significantly reduce port related air emissions over a 5-year plan, through a partnership with the Harbor Department and its tenants” (LB 2010). While the CAAP was not specifically designed to reduce GHG emissions, its air emissions reduction strategies would have the added benefit of helping to reduce GHG emissions as well. By utilizing a truck fleet that complies with the Clean Trucks Program, the Project will facilitate these goals.

The San Pedro Bay Ports adopted a Clean Air Action Plan in 2010. This plan is described as a sweeping plan aimed at significantly reducing the health risks posed by air pollution from port-related ships, trains, trucks, terminal equipment and harbor craft (SPBP 2010). While the San Pedro Bay Ports

CAAP was not specifically designed to reduce GHG emissions, the identified air pollution reduction strategies would have the added benefit of helping to reduce GHG emissions as well. The San Pedro Bay Ports CAAP emphasizes the Clean Trucks Program and the Technology Advancement Program, through which the port imposes significant efficiency standards on trucks. The Project will comply with this program because the trucks that drive to the warehouse from the Port will comply with the Port’s efficiency and engine standards (SPBP 2010).

## **Local**

### Riverside GP 2025

The GP 2025 contains objectives and policies to reduce GHG emission within the City in the Air Quality Element. Appendix M of this DEIR summarizes the Project’s consistency with the applicable GP 2025 policies.

### Green Action Plan

The 2012 Green Action Plan is a product of the City’s Clean & Green Task Force, which was created to: build upon the policies of the City’s General Plan 2025; ensure that the green design guidelines would be developed and followed; provide a framework for sustainability pilot projects; and initiate partnerships among regional agencies and nearby cities. The Task Force first created the Sustainability Policy Statement (SPS), a document featuring eight main categories: Save Water, Keep it Clean, Make it Solar, Make it Shady, Clean the Air, Save Fuel, Make it Smart and Build Green. Once the SPS was adopted, the Green Action Plan was created to serve as a guidebook that would tie specific tasks to the policies of the SPS. The Green Action Plan focuses on seven key areas of city life: Energy, GHG Emissions, Waste, Urban Design, Urban Nature, Transportation and Water.

The City formed a Green Accountability Performance (GAP) Committee to carry out the tasks and within just two years nearly each of the plan's 38 tasks had been accomplished. The GAP Committee was reimagined to focus on healthy communities, and Riverside was awarded its designation by the United States Center for Disease Control and Prevention (CDC) as an Emerald City, an honor that has gained the City national acclaim. Healthy Communities is the

GAP's eighth focus area, with 19 goals and over 50 additional tasks. The Healthy Communities strategies strengthen the Green Action Plan as setting a clear path to sustainability and serving as a living document that reflects the growth of the green movement, the progression of renewable energy, and the fresh ideas of the GAP Committee (GAP 2012).

#### Riverside Restorative Growthprint Climate Action Plan (CAP)

The City of Riverside adopted a Climate Action Plan on January 5, 2016 with Resolution No. 22942. The Riverside Restorative Growthprint (RRG) combines two plans: the Economic Prosperity Action Plan (EPAP) and the Climate Action Plan (CAP), which work in conjunction to spur entrepreneurship and smart growth while advancing the City of Riverside's GHG emission reduction goals.

AB 32 directs California to reduce statewide GHG emissions to 1990 levels by 2020. To achieve these reductions, the California Air Resources Board (CARB) recommends that local governments target their 2020 emissions at 15% below "current" levels, consistent with the statewide commitment, to account for emissions growth that has occurred since 1990. Several initiatives at the state level will help the City reduce GHG emissions, but they alone will not be sufficient to meet the 2020 and 2035 targets. The CAP provides a roadmap for the City to reduce GHG emissions through local actions.

Statewide, the CARB 2008 Scoping Plan called for a reduction in California's GHG emissions of approximately 30 percent from BAU levels projected for 2020, or 15 percent below current levels. The CARB recommended a greenhouse gas reduction goal for local governments of 15 percent below current levels by 2020 to ensure that their municipal and community-wide emissions match the State's reduction target. The CARB 2014 Scoping Plan updated calls for a 15.3 percent reduction from BAU emission levels projected for 2020. Consistent with AB 32, the City has committed to a 2020 emissions target of 2,224,908 MT CO<sub>2</sub>e, which is 26.4% below the City's 2007 baseline and 15% below 2010 emissions. The City is aiming for a 2035 emissions target of 1,542,274 MT CO<sub>2</sub>e, which is 49% below the 2007 baseline and represents a reduction of 2,120,931 MT CO<sub>2</sub>e from the 2035 BAU forecast (CAP 2016).

### **5.7.3 Thresholds of Significance**

The City of Riverside has not established local CEQA significance thresholds as described in Section 15064.7 of the State *CEQA Guidelines*. Therefore, significance determinations utilized in this section are from Appendix G of the State *CEQA Guidelines*. A significant impact will occur if implementation of the proposed Project will:

- (Threshold A) generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- (Threshold B) conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The evaluation of an impact under CEQA requires measuring data from a project against both existing conditions and a "threshold of significance." With regard to establishing a significance

threshold, the Office of Planning and Research’s amendments to the CEQA Guidelines Section 15064.7(c) state that “[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence.”

CEQA Guidelines Section 15064.4(a) further states, “. . . A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use . . . ; or (2) Rely on a qualitative analysis or performance based standards.”

CEQA Guidelines Section 15064.4 provides that a lead agency may take into account the following three considerations in assessing the significance of impacts from greenhouse gas emissions:

- **Consideration #1:** The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.
- **Consideration #2:** Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- **Consideration #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 regulations or 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.

### ***Biological Diversity v. California Department of Fish and Wildlife***

On November 30, 2015, the California Supreme Court in *Center for Biological Diversity v. California Department of Fish and Wildlife* (“*Newhall Ranch*”) invalidated the GHG analysis for a large master planned residential development in Los Angeles County consisting of over 20,000 residential dwelling units and other uses, determining that the GHG significance finding was “not supported by a reasoned explanation based on substantial evidence.” In particular, the Court upheld: (1) use of the statewide emissions reduction goal in AB 32 as a significance criterion (pp. 15-19), (2) use of the Scoping Plan’s BAU model “as a comparative tool for evaluating efficiency and conservation efforts” of the Project (pp. 18-19), and (3) a comparison of the project’s expected emissions to a BAU model rather than a baseline of pre-project conditions (pp.15-19).

Notwithstanding, however, the Court invalidated the GHG analysis on the grounds that the “administrative record discloses no substantial evidence that the *Newhall Ranch*’s project-level reduction of 31 percent in comparison to [BAU] is consistent with achieving AB 32’s statewide

goal of a 29 percent reduction from [BAU] ... .” (p.19, original italics; see also p. 23 (“Nor is Justice Corrigan correct that our analysis ‘assumes project-level reduction in greenhouse gas emissions must be greater than the reduction California is seeking to achieve statewide.’ [internal citations omitted] . . . [W]e only hold that DFW erred in failing to substantiate its assumption that the Scoping Plan’s statewide measure of emissions reduction can also serve as the criterion for an individual land use project.”)

In so doing, the Court in *Newhall Ranch* questioned whether “a greater degree of reduction may be needed” from new versus existing development to achieve the statewide goal set forth in AB 32. (p. 20.) The Court also stated that the EIR failed to contain sufficient evidence to conclude that the “land use density” assumptions used in the EIR’s GHG emissions model relate to the land use density assumptions used in the Scoping Plan’s BAU model. (p. 21-22.) Because this information was not contained in the *Newhall Ranch* EIR, the Court determined that the record in *Newhall Ranch* did not contain substantial evidence supporting the BAU threshold.

The Court in *Newhall Ranch* outlined “potential pathways to compliance” that future EIRs could use to determine if GHG emissions from a given project are significant. Specifically, the Court advised that:

- **Substantiation of Project Reductions from BAU.** A lead agency may use a BAU comparison based on the Scoping Plan’s methodology if it also substantiates the reduction a particular project must achieve to comply with statewide goals. The Court suggested a lead agency could examine the “data behind the Scoping Plan’s business-as-usual model” to determine the necessary project-level reductions from new land use development at the proposed location. (p. 25.)
- **Compliance with Regulatory Programs or Performance Based Standards.** A lead agency “might assess consistency with AB 32’s goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities. (See Final Statement of Reasons, supra, at p. 64 [greenhouse gas emissions ‘may be best analyzed and mitigated at a programmatic level.’]) To the extent a project’s design features comply with or exceed the regulations outlined in the Scoping Plan and adopted by the Air Resources Board or other state agencies, a lead agency could appropriately rely on their use as showing compliance with ‘performance based standards’ adopted to fulfill ‘a statewide . . . plan for the reduction or mitigation of greenhouse gas emissions.’ (CEQA Guidelines § 15064.4(a)(2), (b)(3); see also id., § 15064(h)(3) [determination that impact is not cumulatively considerable may rest on compliance with previously adopted plans or regulations, including ‘plans or regulations for the reduction of greenhouse gas emissions’].) (p. 25.)
- **Compliance with GHG Reduction Plans or Climate Action Plans (CAPs).** A lead agency may utilize “geographically specific GHG emission reduction plans” such as climate action plans or greenhouse gas emission reduction plans to provide a basis for the tiering or streamlining of project-level CEQA analysis. (p. 26.)

- **Compliance with Local Air District Thresholds.** A lead agency may rely on “existing numerical thresholds of significance for greenhouse gas emissions” adopted by, for example, local air districts. (p. 27.)

Therefore, consistent with CEQA Guidelines Appendix G, the three factors identified in CEQA Guidelines Section 15064.4 and the *Newhall Ranch* opinion, the following thresholds are considered in determining the significance of impacts from GHG.

- ***Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs (see Threshold A).***

Analysis under Threshold A involves both a qualitative and quantitative analysis of the Project’s compliance with the City of Riverside’s Climate Action Plan (“CAP”). The CAP is a geographically specific plan that was adopted by the City of Riverside for the purpose of reducing GHG emissions under the control or influence of the City consistent with AB 32 and subsequent state legislation and state agency action to address climate change.

- ***Would the Project conflict with the CARB Scoping Plan and regulations adopted for the purpose of reducing emissions of greenhouse gases (see Threshold B)?***

Analysis under Impact Threshold B involves a qualitative analysis of the Project’s consistency with the CARB’s Scoping Plan and with GHG emission reducing regulations. The Scoping Plan (and its adopted regulations) are considered a statewide plan, policy, or regulation adopted by a public agency to reduce GHG emissions that may be used to assess consistency with AB 32.

The City has further determined that each of the above thresholds is considered to be a separate and independent basis upon which to substantiate the significance of the Project’s GHG impact.

#### **5.7.4 Project Design Features**

The proposed Project will incorporate a number of Project design features that will significantly reduce GHG emissions, many of which are consistent with GHG reduction strategies developed by groups and public agencies, such as CARB, the California Air Pollution Control Officer’s Association (CAPCOA) and the California Attorney General’s Office. To ensure that the latest, most advanced technology can be used, the proposed Project may substitute design features so long as they are proven to be equally effective or more effective at reducing GHG emissions.

#### **Sustainability Features**

As described in DEIR Section 3.2.6 (Sustainability Features), the Project will meet or exceed all applicable standards under California’s Green Building Code (CalGreen) and Title 24. This will be accomplished by incorporating, at a minimum, the following sustainability features or other features that are equally efficient:

### **Energy Efficiency**

- Design building shells and components, such as windows, roof systems and electrical systems to meet California Title 24 Standards for nonresidential buildings.
- Design buildings to provide CalGreen Standards with Leadership in Energy and Environmental Design (LEED) features for potential certification. This includes design considerations related to the building envelope, HVAC, lighting, and power systems. Additionally, the architectural expression such as roofs and windows in the buildings will relate to conserving energy.
- Install efficient lighting and lighting control systems. Solar or light-emitting diodes (LEDs) will be installed for outdoor lighting. The site and buildings will be designed to take advantage of daylight, such that use of daylight is an integral part of the lighting systems in buildings. Lighting will incorporate motion sensors that turn them off when not in use.
- Use trees and landscaping on west and south exterior building walls to reduce energy use.
- Install light colored “cool” roofs over office area spaces and cool pavements.
- For future office improvement, install energy efficient heating and cooling systems, appliances and equipment, and control systems that are Energy Star rated.
- For future office improvement, refrigerants and HVAC equipment will be selected to minimize or eliminate the emission of compounds that contribute to ozone depletion and global warming. Ventilation and HVAC systems will be designed to meet or exceed the minimum outdoor air ventilation rates described in the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHREA) standards and/or per California Title 24 requirements.
- For future office improvement, implement design features to increase the efficiency of the building envelope (i.e., the barrier between conditioned and unconditioned spaces). This includes installation of insulation to minimize heat transfer and thermal bridging and to limit air leakage through the structure or within the heating and cooling distribution system to minimize energy consumption.
- Provide vegetative or human-made exterior wall shading devices or window treatments for east, south, and west-facing walls with windows.
- Incorporate Energy Star rated windows, space heating and cooling equipment, light fixtures, appliances, or other applicable electrical equipment.

### **Renewable Energy**

- Design buildings to have “solar ready” roofs that will structurally accommodate later installation of rooftop solar panels. Building operators providing rooftop solar panels will submit plans for solar panels prior to occupancy.



### **Water Conservation and Efficiency**

- Create water-efficient landscapes in compliance with the City's Water Efficient Landscape and Irrigation Ordinance 19.570.
- Surface parking lots will be landscaped in accordance with City standards to reduce heat island effect.
- Install water-efficient irrigation systems and devices, such as soil moisture based irrigation controls and sensors for landscaping according to the City's Water Efficient Landscape and Irrigation Ordinance 19.570, which complies with the California Department of Water Resources Model Efficient Landscape Ordinance.
- Design buildings to be water-efficient. Install water-efficient fixtures and appliances (e.g., EPA WaterSense labeled products).
- Restrict watering methods (e.g., prohibit systems that apply water to non-vegetated surfaces) and control runoff.
- Provide education about water conservation and available programs and incentives to the building operators to distribute to employees.

### **Solid Waste Measures**

- Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).
- Provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas.
- The property operator will provide readily available information provided by the City for employee education about reducing waste and available recycling services.

### **Transportation and Motor Vehicles**

- Limit idling time for commercial vehicles to no more than five minutes.
- Provide up to three electric vehicle charging facilities to encourage the use of low or zero-emission vehicles.
- Provide bicycle parking per the Cal Green Code Standards including short-term bicycle parking (Section 5.710.6.2.1) and long-term bicycle parking (Section 5.710.6.2.2).
- Designate parking per (Section 5.710.6.3) for 10 or more vehicular parking spaces, for any combination of low-emitting, fuel-efficient and carpool/vanpool vehicles as shown in Table 5.106.2.2 of the CalGreen Building Code Division 5.1.
- The Building Operator will support and encourage ridesharing and transit for the construction crew.

### On-Site Equipment and Loading Docks

- The Project will require building operators (by contract specifications) to turn off equipment, including heavy-duty equipment, motor vehicles, and portable equipment, when not in use for more than 5 minutes. Truck idling shall not exceed 5 minutes in time. All facilities will post signs requiring that trucks shall not be left idling for more than 5 minutes pursuant to Title 13 of the California Code of Regulations, Section 2485, which limits idle times to not more than five minutes.
- Electrical hookups will be installed at all loading docks in order to allow transport refrigeration units (TRUs) with electric standby capabilities to use them. Trucks incapable of utilizing the electrical hookups shall be prohibited from accessing the site as set forth in the lease agreement.
- Service equipment (i.e., forklifts) used within the site shall be electric or compressed natural gas-powered.

### Construction

- Require Construction Equipment to Turn Off When Not in Use.
- Use locally produced and/or manufactured building materials for at least 10% of the construction materials used for the project.
- Use “green” building materials where feasible, such as those materials that are resource efficient and recycled and manufactured in an environmentally friendly way.
- During grading, heavy-duty construction equipment (i.e., excavators, graders, scrapers, dozers, tractor/loader/backhoes, etc.) shall be CARB/U.S. Environmental Protection Agency Tier 3 certified.

### 5.7.5 Environmental Impacts before Mitigation

**Threshold A:** *Would the Project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?*

As discussed in the *Newhall Ranch* decision, a lead agency may assess the significance of GHG emissions by determining a project’s consistency with a local GHG reduction plan or CAP that qualifies under Section 15183.5 of the CEQA Guidelines. The City of Riverside’s Climate Action Plan serves to fulfill this role.

The CAP identifies strategies for reducing GHG emissions and prioritizes the implementation of policies that enable the City to fulfill the requirements of AB 32. The CARB adopted the State’s strategy for achieving AB 32 targets in its Scoping Plan in 2008. The Scoping Plan GHG reduction goal is to reduce statewide emissions to 1990 levels by 2020. The RRG CAP includes strategies that will achieve this target. The strategy will continue to provide reductions past 2020 and includes a roadmap for the City to achieve GHG emissions reductions through the year 2035. The CAP will enable the City to surpass its community-wide GHG emissions target

for 2020, but more aggressive action by the City, the WRCOG sub-region, and the state is needed to reach the 2035 target. Using the strategies and policies outlined in the CAP, the City is on track with meeting its long-term GHG reduction goal until approximately 2026. After that point, a gap emerges between needed reductions and expected reductions. Additional action at the state and sub-regional level is critical to the City's ability to attain its long-term GHG targets. However, the City recognizes its vital role in closing the emissions reduction gap through more aggressive local action that is synergistic with state action. Nevertheless, numerous developments in policy, technology and markets must occur for the state to achieve an economy-wide 80% reduction in GHG emissions by the year 2050 from 1990 levels (CAP 2016).

In determining whether the Project conflicts with any applicable plan, policy, or regulation, the California Resources Agency has stated that in order to be used for the purpose of determining significance, a plan must contain specific requirements that result in reductions of greenhouse gas emissions to a less than significant level. The following from CEQA Guidelines Section 15083.5(b) lists the requirements for greenhouse gas reduction plans used for this purpose:

- (1) Plan Elements. A plan for the reduction of greenhouse gas emissions should:
  - (A) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;
  - (B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;
  - (C) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;
  - (D) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
  - (E) Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels;
  - (F) Be adopted in a public process following environmental review.
  
- (2) Use with Later Activities. A plan for the reduction of greenhouse gas emissions, once adopted following certification of an EIR or adoption of an environmental document, may be used in the cumulative impacts analysis of later projects. An environmental document that relies on a greenhouse gas reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those

requirements as mitigation measures applicable to the project. If there is substantial evidence that the effects of a particular project may be cumulatively considerable notwithstanding the project's compliance with the specified requirements in the plan for the reduction of greenhouse gas emissions, an EIR must be prepared for the project.

The CAP meets these requirements as shown below:

- The CAP quantifies emissions for a 2007 base year and future inventories for 2020 and 2035.
- Following the state's adopted AB 32 GHG reduction target, the City has set a goal to reduce emissions back to 1990 levels by the year 2020. This target was calculated as a 15% decrease from 2010 levels, as recommended in the AB 32 Scoping Plan. The emission sectors that are the focus of State regulations are the same sectors found in the City's GHG inventory as shown in the analysis provided in the CAP as substantial evidence to support its conclusion that reductions achieved by 2020 were sufficient to demonstrate consistency with AB 32 targets and the CARB Scoping Plan.
- The CAP analyzed the GHG emissions resulting from specific sources under the jurisdiction of the City or within the City's ability to influence including source categories common to most climate action plans in California.
- The CAP identified specific measures that would reduce GHG emissions by the required amount from regulations that apply to existing and new development and local measures that apply to the sources of emissions including:
  - Energy – Including electricity and natural gas consumption
  - Transportation and Land Use
  - Water
  - Solid Waste
- The CAP includes an implementation and monitoring plan that includes biennial GHG inventory updates, CAP revisions every five years, and a monitoring tool that tracks implementation of the most impactful RRG CAP measures and annually estimates the GHG reductions associated with implementation.
- The CAP was included as part of the Riverside Restorative Growthprint (RRG) that combines two plans: the Economic Prosperity Action Plan (EPAP) and the Climate Action Plan and was adopted by Riverside City Council on January 5, 2016 with Resolution No. 22942 after a Mitigated Negative Declaration was completed and processed in compliance with the requirements of CEQA with response to public comments incorporated.
- The CAP includes binding and enforceable requirements that apply to development projects to ensure plan consistency. All emission reductions required to reach the plan 2020 targets are achieved through compliance with adopted regulations, ordinances, and code enforced by the State and the City. Conditions of approval may be applied for

measures requiring project specific actions not specifically addressed by the regulation or code.

The City of Riverside adopted its Climate Action Plan on January 5, 2016 as part of the RRG. The CAP includes State and Regional Measures by sector and the GHG reduction potential associated with these measures for the City. Project compliance with state and regional regulations is discussed in detail in *Threshold B*. The CAP also identifies Local Reduction Measures by sector and the GHG reduction potential associated with each measure. The proposed Project includes Design Features that support these measures are discussed below.

In terms of transportation, through CAP Measures T-1(Bicycle Infrastructure Improvements), T-2 (Bicycle Parking), and T-12 (Accelerated Bike Plan Implementation) the City will expand on-street and off-street bicycle infrastructure, including bicycle lanes and bicycle trails, provide additional options for bicycle parking, and accelerate the implementation of all or specified components of an adopted bike plan. Adequate bicycle parking will be provided near building entrances of the proposed Project to promote cyclist safety, security, and convenience as described in **MM AQ 12**, and facilities that encourage bicycle commuting (e.g., locked bicycle storage or covered or indoor bicycle parking) consistent with City code requirements will be provided. CAP Measure T-10 (High Frequency Transit Service) and Measure T-15 (Subsidized Transit) involve implementation of bus rapid transit service in the subregion to provide alternative transportation options and increasing access to transit by providing free or reduced passes. The Building Operator of the proposed Project will encourage ridesharing and transit for the construction crew and future employees based on **MM AQ 16**. Measure T-19 (Alternative Fuel & Vehicle Technology and Infrastructure) will promote the use of alternative fueled vehicles such as those powered by electric, natural gas, biodiesel, and fuel cells by Riverside residents and workers. As described in **MM AQ 11**, the Project will install up to three electric vehicle charging stations to encourage the use of low or zero-emission vehicles.

In terms of energy, through CAP Measure E-3 (Local Utility Programs – Electricity), the City will provide financing and incentives for business and home owners to make energy efficient, renewable energy, and water conservation improvements. As described in **MM AQ 1** and **MM AQ 2**, the proposed Project will install efficient lighting and lighting control systems. Solar or light-emitting diodes (LEDs) will be installed for outdoor lighting. The site and buildings will be designed to take advantage of daylight, such that daylight is an integral part of the lighting systems in buildings. Lighting will also incorporate motion sensors that turn them off when not in use. The Project will also install light colored “cool” roofs over office area spaces and cool pavements as described in **MM AQ 4**. **MM AQ 5** includes the installation of energy efficient heating and cooling systems, appliances and equipment, and control systems that are Energy Star rated. **MM AQ 6** describes how the Project will incorporate Energy Star rated windows, space heating and cooling equipment, light fixtures, appliances, or other applicable electrical equipment. Lastly, the proposed Project will design the buildings to have “solar ready” roofs that will structurally accommodate later installation of rooftop solar panels as described in **MM AQ 7**.

In terms of water, through CAP Measure W-1 (Water Conservation and Efficiency), the City will reduce per capita water use by 20% by 2020. Implementation of the CalGreen standards also reduce energy consumptions from water use by requiring the reduction of indoor potable water use by 20 percent using water saving fixtures and/or flow restrictors by the incorporation of sustainability features including installing water-efficient fixtures and appliances (e.g., EPA WaterSense labeled products). The proposed Project will be subject to the Title 24 standards and therefore is consistent with the 20 percent reduction target. The proposed Project will also create water-efficient landscapes with a preference for a xeriscape landscape palette as described in **MM AQ 8**.

In terms of solid waste, through CAP Measure SW-1 (Yard Waste Collection) and SW-2 (Food Scrap and Compostable Paper Diversion), the City will provide green waste collection bins community-wide and divert food and paper waste from landfills by implementing commercial and residential collection program. As outlined in **MM AQ 10**, the proposed Project will also provide interior and exterior storage areas for recyclables and green waste, and adequate recycling containers located in public areas and the property operator will also provide readily available information provided by the City for employee education about reducing waste and available recycling services.

The CAP identified a 2020 emissions target of 26.4% below the City's 2007 baseline emissions inventory and 15% below 2010 emissions inventory to meet the goal of the City's CAP pursuant to AB 32 reduction targets in 2020. Projects that demonstrate compliance with the reduction target described in the City's CAP are considered consistent with the AB 32 reduction target. Therefore, a BAU analysis was also performed for the proposed Project to determine its consistency with AB 32.

Three Project scenarios were analyzed below for their GHG emissions:

- Project Opening Year (2018)
- BAU (2020)
- Project 2020

The GHG emission analysis presents short-term and long-term emissions for Project Opening Year (2018) followed by the BAU and Project 2020 analysis. The GHG emissions summarized herein are based, in part, on the *Sycamore Canyon Business Park Warehouse CalEEMod Emissions Estimates, LST Analysis, and Screening HRA* (the AQ Report). The AQ Report is included as Appendix B to the DEIR. The AQ Report methodology is consistent with draft guidance prepared by the SCAQMD for quantification of emissions and evaluation of potential impacts related to GHG emissions. As recommended by SCAQMD staff, the CalEEMod version 2013.2.2 program was used to quantify project-related emissions. As the existing site condition is vacant, existing site emissions were conservatively assumed to be zero. The BAU (2020) and Project 2020 GHG emissions summarized herein are based, in part, on the CalEEMod model output contained in Appendix F of the DEIR.

## Project Opening Year (2018)

### Short-Term Analysis

#### Construction-Related Activities

The Project would emit GHGs from upstream emission sources and direct sources from construction activities (combustion of fuels from worker vehicles and construction equipment). An upstream emission source (also known as life cycle emissions) refers to emissions that were generated during the manufacture of products to be used for construction of the project. Upstream emission sources for the Project include but are not limited to the following: emissions from the manufacture of cement; emissions from the manufacture of steel; and/or emissions from the transportation of building materials to the seller. The upstream emissions were not estimated because they are expressly not within the purview of EIRs per CEQA Guidelines Section 15144. Additionally, the California Air Pollution Control Officers Association (CAPCOA) White Paper on CEQA and Climate Change states “The full life-cycle of GHG [greenhouse gas] emissions from construction activities is not accounted for...and the information needed to characterize [life-cycle emissions] would be speculative at the CEQA analysis level” (CAPCOA 2008). Therefore, pursuant to CEQA Guidelines Sections 15144 and 15145, upstream /life cycle emissions are speculative; no further discussion is provided.

Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and prevailing weather conditions. Construction emissions result from on-site and off-site activities. On-site emissions principally consist of exhaust emissions (CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O) from heavy-duty construction equipment and motor vehicle operation. Off-site emissions are caused by motor vehicle exhaust (CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O) from delivery vehicles and worker traffic.

The Project would emit greenhouse gases from upstream emission sources and direct sources (combustion of fuels from worker vehicles and construction equipment). The CalEEMod model calculates GHG emissions from fuel usage by construction equipment and construction-related activities, like worker trips, for the Project. The CalEEMod estimate does not analyze emissions from construction-related electricity or natural gas. The emissions are from all phases of construction and the emissions analysis assumed full buildout of the Project by 2018. In order to provide a conservative analysis, the short-term construction emissions have been amortized over the expected (long-term) operational life of the Project and are included in the quantification of operational emissions. The operational life of a conventional commercial/industrial building is estimated to be 30 years per SCAQMD guidance.

The following table summarizes the output results and presents the GHG emissions estimates for the Project in metric tons per year (MT/yr).

**Table 5.7-B – Project Construction Equipment GHG Emissions**

Year	Metric Tons per year (MT/yr)			
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Total CO <sub>2</sub> E
2017	3,017.94	0.20	0.00	3,022.21
2018	35.22	0.00	0.00	35.26
Total	3,053.16	0.20	0.00	3,057.47
<b>Amortized Total</b>				<b>101.92</b>

Evaluation of the table above indicates that an estimated 3,057.47 MTCO<sub>2</sub>E emissions from project construction equipment will occur during the estimated construction period. The draft SCAQMD GHG threshold Guidance document released in October 2008 (SCAQMD 2008b, p. 3-8) recommends that construction emissions be amortized for a project lifetime of 30 years to ensure that GHG reduction measures address construction GHG emissions as part of the operational reduction strategies. Therefore, the Project’s total construction emissions were spread evenly over 30 years to yield an average of 101.92 MTCO<sub>2</sub>E per year and were included in the analysis of the project’s total operational emissions below in **Table 5.7-D – Project Opening Year (2018) Total Annual GHG Emissions**.

Vegetation Change

CalEEMod estimates the GHG emissions associated with the one-time change in vegetation resulting from development and the GHG emissions sequestered as a result of planting new trees on a project site. Planting trees as part of the Project will sequester CO<sub>2</sub> while they are actively growing. Approximately 741 trees from miscellaneous species are estimated to be planted as part of this Project based on the conceptual landscaping plan. The estimated one-time sequestration of CO<sub>2</sub> from the planting of Project trees is 524.63 MTCO<sub>2</sub>E. Assuming a Project life of 30 years, this equates to a net reduction of 17.49 MTCO<sub>2</sub>E annually. These results were included in the analysis of the Project’s total operational emissions below in **Table 5.7-D**.

**Long-Term Analysis**

Energy-Related Activities

CalEEMod estimates the GHG emissions associated with building electricity and natural gas usage (non-hearth) for each land use type. Electricity and natural gas used in buildings is typically generated at an off-site power plant which indirectly generates GHG emissions. The default values used in CalEEMod are based on the CEC sponsored California Commercial End Use Survey and Residential Appliance Saturation Survey studies and were updated to reflect current 2013 Title 24 improvements. The following table summarizes the GHG emissions estimates for the Project.



**Table 5.7-C – Annual Project Energy-Related GHG Emissions**

Source	Metric Tons per year (MT/yr)			
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Total CO <sub>2</sub> E
Electricity	2,621.36	0.06	0.01	2,626.24
Natural Gas	115.29	0.00	0.00	115.99
<b>Total</b>	<b>2,736.65</b>	<b>0.06</b>	<b>0.01</b>	<b>2,742.23</b>

Evaluation of the table above indicates that the proposed Project will generate an estimated 2,742.23 MTCO<sub>2</sub>E per year.

Mobile Source Emissions

CalEEMod estimates the annual GHG emissions from Project-related vehicle usage based on trip generation data contained in defaults or in project-specific traffic analyses. Trip generation data from the Project-Specific Traffic Impact Analysis was used (Appendix J). Trip length data was based on CalEEMod defaults and the distance from the Ports of Los Angeles and Long Beach to the Project site. **Table 5.7-D**, below, indicates that total Project-related GHG emissions from mobile sources are estimated to be approximately 22,236.02 MTCO<sub>2</sub>E annually.

Solid Waste-Related Emissions

CalEEMod also calculates the GHG emissions associated with the disposal of solid waste into landfills based on default data contained within the model for waste disposal rates, composition, and the characteristics of landfills throughout the State. **Table 5.7-D**, below, indicates that the Project’s GHG emissions from solid waste disposal total 220.69 MTCO<sub>2</sub>E annually.

Water-Related Energy Usage

Electricity is also indirectly used in water supply, treatment, and distribution, as well as wastewater treatment in southern California and plays a large role in GHG production.

There are three processes necessary to supply potable water to urban users (i.e., residential, commercial, and industrial): (1) supply and conveyance of the water from the source; (2) treatment of the water to potable standards; and (3) distribution of the water to individual users. After use, the wastewater is treated and either reused as reclaimed/recycled water or returned to the environment (CEC 2005, p. 21). CalEEMod calculates the GHG emissions from these processes based on default emissions factors and water/wastewater generation rates for a project’s location. Total Project water demand was obtained from the Water Supply Assessment found in Appendix K of this DEIR. The outdoor water use information was provided by the landscape architect.

**Table 5.7-D**, below, indicates that the Project’s GHG emissions from water-related energy usage total 225.63 MTCO<sub>2</sub>E annually.

**Total Project GHG Emissions**

As shown in **Table 5.7-D**, using all the emissions quantified above, the total GHG emissions generated from the Project is approximately 25,509.10 MTCO<sub>2</sub>E per year which includes construction-related emissions amortized over a typical project life of 30 years. The table below indicates that the majority of GHG emissions are from vehicle use (mobile sources) followed by energy consumption.

**Table 5.7-D – Project Opening Year (2018) Total Annual GHG Emissions**

Source	Metric Tons per year (MT/yr)			
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Total CO <sub>2</sub> E
Amortized Construction	--	--	--	101.92
Vegetation Change	--	--	--	-17.49
Area	0.10	0.00	0.00	0.10
Energy	2,736.65	0.06	0.01	2,742.23
Mobile	22,229.31	0.32	0.00	22,236.02
Solid Waste	98.48	5.82	0.00	220.69
Water	209.71	0.55	0.01	225.63
<b>Total</b>	<b>25,274.25</b>	<b>6.75</b>	<b>0.02</b>	<b>25,509.10</b>

**Business-As-Usual (BAU) Analysis**

The BAU analysis presented herein was performed to determine if the Project’s GHG emissions would meet the City of Riverside’s CAP reduction target in 2020, which equals a reduction of 15%. BAU is an estimate of the GHG emissions expected to occur if none of the foreseeable measures in the City’s CAP were implemented. These measures are implemented at the state, regional, and local level.

Many aspects of the GHG estimates for the BAU analysis are similar to those analyzed for the proposed Project. BAU emissions for construction will be similar to those shown for the Project, as the same Project footprint will be disturbed. Therefore, construction under the BAU analysis is assumed to be equivalent to that of the Project and was not modeled separately. BAU emissions for the remaining sources of GHG emissions were estimated using CalEEMod and are similar to the GHG estimates for the Project with the following exceptions:

- The operational year selected was 2010, since CalEEMod does not have data available for 2007, which is the baseline year in the City’s CAP. The City’s CAP included an updated emission inventory for 2010 and identified a reduction target of 15% from 2010 levels by 2020. Therefore, using 2010 as the operational year allows an accurate estimate for BAU analysis.
- The energy-related GHG emissions were estimated according to the 2008 Title 24 standards.

- No adjustments were made to water demand because the CalGreen code requirements were not in effect at the time the City’s CAP baseline was set.

**Table 5.7-E**, below, indicates that the BAU GHG emissions based on the assumptions outlined above, result in 28,778.85 MTCO<sub>2</sub>E/year.

**Table 5.7-E – Total BAU GHG Emissions**

Source	Metric Tons per year (MT/yr)			
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Total CO <sub>2</sub> E
Amortized Construction	--	--	--	101.92
Vegetation Change	--	--	--	-17.49
Area	0.10	0.00	0.00	0.10
Energy	2,901.45	0.06	0.02	2,907.54
Mobile	25,282.27	0.73	0.00	25,297.61
Solid Waste	98.48	5.82	0.00	220.69
Water	248.60	0.69	0.02	268.48
<b>Total</b>	<b>28,530.90</b>	<b>7.30</b>	<b>0.04</b>	<b>28,778.85</b>

Note: Emissions reported as zero are rounded and not necessarily equal to zero.

Because the City’s CAP has a target year of 2020, the Project’s emissions were also analyzed in 2020 to represent full implementation of the City’s CAP regulatory measures. For example, the GHG from the Project does not include implementation of the Renewable Portfolio Standard (RPS) which requires 33 percent of utility companies energy sources to be renewable because it is not directly available in CalEEMod.

**Table 5.7-F – Project 2020 Total Annual GHG Emissions**, below, shows the Project’s GHG emissions in 2020 which includes full implementation of the following statewide GHG reduction measures:

- Pavley motor vehicle standards for cars and light trucks and the Low Carbon Fuel Standard (LCFS) for motor vehicle fuels (calculated within CalEEMod).
- RPS where renewable energy sources are required to be 33 percent. This is not directly calculated within CalEEMod, but adjustments were made to the default CO<sub>2</sub> electricity intensity factor within the model.
- 75% reduction in waste disposed per AB 341 requirements, which will be fully implemented in 2020.<sup>14</sup>

A comparison of the Project’s GHG emissions in 2020 from **Table 5.7-F** (23,541.61 MTCO<sub>2</sub>E /year) to the BAU GHG emissions estimated in **Table 5.7-E** (28,778.85 MTCO<sub>2</sub>E/year) corresponds to a 18.2 percent reduction, which achieves the 15 percent reduction target to meet the goal of the City’s CAP pursuant to AB 32 reduction targets.

<sup>14</sup> [http://leginfo.ca.gov/pub/11-12/bill/asm/ab\\_0301-0350/ab\\_341\\_bill\\_20111006\\_chaptered.pdf](http://leginfo.ca.gov/pub/11-12/bill/asm/ab_0301-0350/ab_341_bill_20111006_chaptered.pdf)

**Table 5.7-F – Project 2020 Total AnnualGHG Emissions**

Source	Metric Tons per year (MT/yr)			
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Total CO <sub>2</sub> E
Amortized Construction	--	--	--	101.92
Vegetation Change	--	--	--	-17.49
Area	0.10	0.00	0.00	0.10
Energy	2,004.31	0.06	0.01	2,009.90
Mobile	21,119.27	0.29	0.00	21,125.38
Solid Waste	68.39	4.04	0.00	153.26
Water	152.61	0.55	0.01	168.54
<b>Total</b>	<b>23,344.68</b>	<b>4.94</b>	<b>0.02</b>	<b>23,541.61</b>

Note: Emissions reported as zero are rounded and not necessarily equal to zero.

In addition, the Project is implementing numerous design features to increase energy efficiency, reduce water consumption, and reduce waste as described in the Project Design Features listed in Section 5.7.4 and identified in **MM AQ 1** through **MM AQ 16**, **MM AQ 18**, **MM AQ 19**, and **MM AQ 22** through **MM AQ 24** listed in Section 5.3.15. Although there are no specific quantitative reductions available in CalEEMod associated with these design features, these features will further reduce GHG emissions and are consistent with mitigation strategies developed by groups and public agencies such as the State Climate Action Team, CAPCOA, and the State Attorney General.

Beyond 2020, California EO B-30-15 (April 29, 2015) set an “interim” statewide emission target to reduce GHG emissions to 40 percent below 1990 levels by 2030, and directed state agencies with jurisdiction over greenhouse gas emissions to implement measures pursuant to statutory authority to achieve this 2030 target and the 2050 target of 80 percent below 1990 levels. The City’s CAP explains that its measures are sufficient to keep the City on track with meeting its long-term GHG reduction goal until approximately 2026. After that point, a gap emerges between needed reductions and expected reductions, a gap that steadily grows until reaching a deficit of approximately 446,740 MT CO<sub>2</sub>e. Additional action at the state and subregional level is critical to the City’s ability to attain its long-term GHG targets, as the City cannot meet the goals without altering land uses. However, the proposed Project meets and exceeds the City’s CAP reduction target of 15 percent with only state and county level actions. Any reductions caused by EO B-30-15 will be applicable to the Project and will reduce the Project’s emissions. The executive goals set by EO B-30-15 EO S-3-05 are presently inappropriate significance criteria in analyzing impacts related to GHG emissions and climate change under CEQA because they do not establish any binding mandates. Additionally, the proposed Project will be operational prior to 2020, and is consistent with the City’s CAP and AB 32 reduction targets. Moreover, as buildings, roads, or other components of the Project are updated or replaced over time, they will be subject to the then-existing requirements for GHG emissions reductions, including those set forth to ensure compliance with EOs S-3-05, 05 and B-30-15, and will use then-existing technologies employed to achieve deep reductions in GHG

emissions. Potential measures may include retrofitting or improving buildings so that they are “zero net energy,” i.e., they produce as much energy as they consume by using a combination of energy efficiency and low-carbon on-site generation, such as solar PV rooftops; increased use of low-carbon biofuels; increased use of or transition to zero-emission vehicles; and/or procurement of electricity from renewable sources.

Construction and operation of the proposed Project will meet and exceed the 2020 City’s CAP reduction target of 15 percent through implementing statewide regulations and the Project’s incorporation of numerous design features to increase energy efficiency, reduce water consumption, and reduce waste as described in Project Design Features listed in Section 5.7.4 and included with **MM AQ 1** through **MM AQ 16**, **MM AQ 18**, **MM AQ 19**, and **MM AQ 22** through **MM AQ 24** listed in Section 5.3.15. Although there are no specific quantitative reductions available in CalEEMod associated with these design features and mitigation measures, their implementation will further reduce GHG emissions. On this basis, the Project does not generate GHG emissions that would cause a significant impact on the environment and the impacts are **considered less than significant with incorporation of mitigation**.

**Threshold B:** *Would the Project be consistent with the CARB Scoping Plan and regulations adopted for the purpose of reducing the emissions of greenhouse gases?*

CEQA allows lead agencies to consider whether regulatory programs are adequate to reduce a project’s potentially significant environmental effects. Under AB 32, the State’s emission inventory must be reduced to 1990 levels by 2020. One of the questions in the CEQA Guidelines checklist regarding GHG asks whether a project conflicts with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. The CARB Scoping Plan and its implementing regulations provide the regulatory framework for the State to achieve its target and to track its progress. Moreover, *Newhall Ranch* describes that a lead agency may assess consistency with AB 32’s goal in whole or in part by looking to compliance with regulatory programs designed to reduce GHG emissions from particular activities ... [Newhall, p. 25.] *Newhall Ranch* further describes that “[t]o the extent a project’s design features comply with or exceed the regulations outlined in the Scoping Plan and adopted by the Air Board or other state agencies, a lead agency could appropriately rely on their use as showing compliance with ‘performance based standards’ adopted to fulfill ‘a statewide . . . plan for the reduction or mitigation of greenhouse gas emissions.’ (CEQA Guidelines § 15064.4(a)(2), (b)(3); see also id., § 15064(h)(3) [determination that impact is not cumulatively considerable may rest on compliance with previously adopted plans or regulations, including ‘plans or regulations for the reduction of greenhouse gas emissions’].)”

An important underlying assumption when making a significance determination based on compliance with regulations is that the regulations are adequate to address the impact to a less than significant level. If compliance with regulations is sufficient to mitigate the impact to a less than significant level, then a project is not required to provide any additional mitigation to further reduce the impact. If, however, regulations are only partially effective in mitigating the

impacts, or if the regulatory program is not fully implemented, there may be a gap between the amount that can be reasonably claimed from regulation and the amount needed to achieve the less than significant target.

The CARB 2008 Scoping Plan includes a regulatory strategy that will result in the State achieving the AB 32 target by 2020, accounting for growth projected by 2020. The measures in the 2008 Scoping Plan were all in place by 2012. The First Update of the CARB Scoping Plan adopted in May 2014 (CARB 2014) includes no new measures or targets that would require additional consistency analysis.

When the Scoping Plan was first adopted in 2008, most of the regulations to implement it had not been adopted. This resulted in a gap between the reductions achieved by regulations and those reductions required to show consistency with the 2020 BAU percentage reduction. In the *Newhall Ranch* case, the project was required to determine reductions from its land use design and transportation measures to close the gap and exceed the identified 29 percent reduction below BAU threshold. If that project were analyzed today, the gap would likely be closed by regulations that have since been adopted to reduce GHG emissions from project sources, and possibly no reductions from land use design would be required to meet the 2020 target, at least for portions of the project built prior to 2020.

Specifically, since the adopting of AB 32, the State has embarked on an ambitious regulatory development program to implement the Scoping Plan, which continues today. As explained in the First Update to the Scoping Plan (2014) (2014 Scoping Plan Update), all of the regulations needed to achieve the AB 32 target have now been adopted. The 2014 Scoping Plan Update describes the progress achieved in adopting the regulations, and establishes that the State is on track to meet the targets accounting for the latest growth forecasts. (See 2014 Scoping Plan Update, stating that “California is on track to meet the near-term 2020 greenhouse gas limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32”; see also Governor Brown’s introduction to Executive Order B-30-15, stating that “California is on track to meet or exceed the current target of reducing greenhouse gas emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32).”)

Most of the reductions required to reach AB 32’s 2020 reduction target will be achieved by regulations that apply to both existing and new development, including the RPS, Pavley standards, LCFS, landfill regulations, regulations and programs on high global warming potential (GWP) gases, initiatives on water conservation (such as SB X7-7), and the indirect influence of the Cap and Trade system on electricity and transportation fuel prices. These regulations are sufficient to achieve AB 32’s goal to reduce statewide GHG emissions to 1990 levels by 2020. For this reason, CARB’s 2010 Cap and Trade Inventory Update revised the 2020 target reduction from BAU from 28.4 percent to 21.7 percent.

The 2014 Scoping Plan Update provided additional information supporting the progress toward reaching the 2020 AB 32 target. Accounting only for implementation of Pavley I and

achievement of the 20 percent RPS mandate in the inventory baseline and revised GWPs from the IPCC, the State will require only a 15.3 percent reduction to achieve the 2020 target. In other words, implementation of the Scoping Plan measures and associated emissions reductions are working as anticipated in the 2008 Scoping Plan.

The Project's significance with respect to consistency with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emission have been evaluated below and addressed for each sector.

### ***Transportation***

Approximately 87 percent of the Project's opening year GHG emissions in **Table 5.7-D** are from transportation (mobile sources), heavy-duty trucks in particular. Transportation emissions are heavily regulated at the source, including, but not limited to engine emissions standards and fuel requirements. Because these regulations and policies reduce GHG emissions at the source, the Project will be subject to and therefore not conflict with these transportation measures.

### ***State Regulations***

Adopted regulations that will reduce the Project's GHG emissions through engine emission standards and fuel requirements are described in detail in Section 5.7.2 above. These regulations include: AB 1493, or the Pavley Standard, that required CARB to adopt regulations to reduce GHG emissions from non-commercial passenger vehicles and light-duty trucks of model year 2009 through 2016. These standards apply to all passenger and light-duty trucks used by customers, employees of and deliveries to the proposed Project. The LCFS regulation became fully effective in 2010 and will reduce GHG emissions by reducing the carbon intensity of transportation fuels used in California by at least 10 percent by 2020. The proposed Project will utilize these emissions reductions as they are implemented into 2020 from all operational mobile emissions sources. The Advanced Clean Cars Program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles. By 2025, when the rules will be fully implemented, the new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming gases. Customers, employees of and deliveries to the proposed Project will utilize these vehicles as they become available and further reduce GHG emissions.

As part of the Heavy-duty Vehicle Greenhouse Gas Regulation, CARB also implemented the Drayage Truck Regulation and Truck and Bus Regulation. These three regulations were collectively adopted to address and reduce emissions from trucks. Since the proposed Project has a large truck component, these regulations will aid in reducing GHG emissions from the Project.

Notably, the Cap-and-Trade Program covers transportation fuel suppliers to address emissions from fuels and from combustion of other fossil fuels not directly covered at large sources in the

Program's first compliance period. While the Cap-and-Trade Program technically covered fuel suppliers as early as 2012, they did not have a compliance obligation until 2015. The Cap-and-Trade Program covers the GHG emissions associated with the combustion of transportation fuels in California, whether refined in-state or imported. The point of regulation for transportation fuels is when they are supplied, or delivered into commerce. Accordingly, as with stationary source GHG emissions and GHG emissions attributable to electricity use, virtually all of GHG emissions from CEQA projects associated with VMT are covered by the Cap-and-Trade Program.

In September 2013, the SCAQMD adopted two Negative Declarations stating that GHG emissions subject to the CARB Cap-and-Trade Program do not count against the 10,000 MT CO<sub>2</sub>e significance threshold the SCAQMD applies when acting as a lead agency. In addition, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has recently taken this one issue step further and adopted a policy: "CEQA Determinations of Significance for Projects Subject to CARB's GHG Cap-and-Trade Regulation." This policy applies when the SJVAPCD is the lead agency and when it is a responsible agency. In short, the SJVAPCD "has determined that GHG emissions increases that are covered under CARB's Cap-and-Trade regulation cannot constitute significant increases under CEQA...." The SJVAPCD classifies CARB's Cap-and-Trade Program as an approved GHG emission reduction plan or GHG mitigation program under CEQA Guidelines Section 15064(h) (3). The policy acknowledges that "combustion of fossil fuels including transportation fuels used in California (on and off road including locomotives), not directly covered at large sources, are subject to Cap-and-Trade requirements, with compliance obligations starting in 2015." As such, the SJVAPCD concludes that GHG emissions associated with vehicle miles traveled (VMT) cannot constitute significant increases under CEQA. This regulatory conclusion is therefore directly applicable to the proposed Project because VMT is by far the largest source of project GHG emissions.

Since the proposed Project has a large mobile source component and Cap-and-Trade emission reductions are difficult to calculate on a project-level, the proposed Project's mobile source emissions are very conservative, making the total emission calculations conservative. The phase-in of the Cap-and-Trade Program compliance obligations for transportation fuel providers further reduces GHG emissions attributable to mobile sources, beyond the GHG emissions reductions achieved and modeled by the Pavley Standard and LCFS.

### ***Regional and Local Measures***

Southern California is a major hub for importing and exporting goods. SCAG estimates that over \$2 trillion in cargo was moved across the region in 2010 alone, much of which travels through inland Southern California, including Western Riverside County. However, the many warehouses and distribution facilities employ non-passenger vehicles that contribute to GHG emissions. At the state level, more standards are being implemented to increase vehicle efficiencies and the 2012 RTP/SCS and SCAQMD are supporting greater penetration of low-emission trucks in the region. While goods will continue to be moved to support local and regional economies, electrification and other low-emission technologies installed in vehicles can reduce the GHG emissions of goods movement. These investments include both policies



as well as physical improvements such as “truck climbing” lanes on State Route-60 (SR-60), funded by RCTC. GHG reduction potentials from these anticipated improvements were incorporated into the RRG CAP and would be applicable to the proposed Project GHG reduction potential based on the large amount of goods movement associated with the Project.

As explained above, the Inland Empire is the heart of the region’s warehouse Goods Movement network for goods that enter the Ports and are moved east to the rest of the country. The entire Goods Movement network is based on the Ports of Los Angeles/Long Beach (Ports of LA/LB) and all truck trips generated by the Project are conservatively assumed to come from the Ports of Los Angeles/Long Beach (Ports of LA/LB). The Ports have adopted several plans and policies to reduce GHG emissions including Green LA: An Action Plan to Lead the Nation in Fighting Global Warming, the Port of LA CAP, the Long Beach Sustainable City Action Plan, and the San Pedro Bay Ports Clean Air Action Plan.

The RRG CAP also identifies express lane expansion on the State Route (SR) -91 freeway and congestion pricing through expansion of the SR-91 toll lanes that would reduce GHG emissions. Extension of express lanes along SR-91 will be operational by 2017 and would lead to reduced congestion according to regional transportation modeling. Reduced congestion would cause fewer delays for the distribution trucks and commuting employees traveling to the proposed Project site and increase fuel efficiency.

As identified in the RRG CAP, the City plans to expand alternative vehicle fueling stations. Once these stations are established, employees that commute to the proposed Project site would have more incentive to invest in an alternatively fueled vehicle with lower GHG emissions than fossil fueled vehicles. The City also has an extensive traffic management system which includes coordination along major corridors, video cameras, and an integrated traffic management center in City Hall. As the City extends traffic signal coordination to additional roadways, GHG emissions will be reduced by reducing motorist stops and delays and lowering the amount of fuel needed to move a certain distance. Signal coordination also lessens congestion and resulting tail pipe emissions, which reduces GHG emissions and improves air quality. This would apply to both the trucks and employee passenger cars traveling on local streets.

The CAP also identifies bicycle infrastructure improvements and increased bicycle parking as strategies to increase the viability of bicycling as an emission-free commute option. The proposed Project would benefit from these improvements and be able to expand alternative transportation options to commuting employees in order to further lower GHG emissions.

### ***Project Design Features***

Lastly, the Project Design Features listed in Section 5.7.4, above, will further reduce the Project’s GHG emissions from transportation. As described in **MM AQ 11**, the Project will install up to three electric vehicle charging stations to encourage the use of low or zero-emission vehicles. Adequate bicycle parking will be provided near building entrances to

promote cyclist safety, security, and convenience as described in **MM AQ 12**, and facilities that encourage bicycle commuting (e.g., locked bicycle storage or covered or indoor bicycle parking) consistent with City code requirements will be provided. The Building Operator will encourage ridesharing and transit for the construction crew based on **MM AQ 16**. The Project will install electric outlets, as outlined in **MM AQ 14**, at loading docks to allow transport refrigeration units (TRUs) with electric standby capabilities to use them. Trucks incapable of utilizing the electrical hookups shall be prohibited from accessing the site as set forth in the lease agreement. Additionally, the Project will require use of electric or natural gas powered service equipment (i.e., forklifts) as described in **MM AQ 15** and any yard trucks used on-site to move trailers in or around the loading areas will be electric in place of traditional diesel powered yard trucks as described in **MM AQ 24**.

As outlined in **MM AQ 23**, in order to promote alternative fuels, and help support “clean” truck fleets, the developer/successor-in-interest shall provide building occupants with information related to SCAQMD’s Carl Moyer Program, or other such programs that promote truck retrofits or “clean” vehicles and information including, but not limited to, the health effect of diesel particulates, benefits of reduced idling time, CARB regulations, and importance of not parking in residential areas. If trucks older than 2007 model year will be used at a facility, the developer/successor-in-interest shall require, within one year of signing a lease, future tenants to apply in good-faith for funding for diesel truck replacement/retrofit through grant programs such as the Carl Moyer, Prop 1B, VIP, HVIP, and SOON funding programs, as identified on SCAQMD’s website (<http://www.aqmd.gov>). Tenants will be required to use those funds, if awarded.

**MM AQ 13** will require building operators (by contract specifications) to turn off equipment, including heavy-duty equipment, motor vehicles, and portable equipment, when not in use for more than 5 minutes. Truck idling shall not exceed 5 minutes in time. All facilities will post signs requiring that trucks shall not be left idling for more than 5 minutes pursuant to Title 13 of the California Code of Regulations, Section 2485, which limits idle times to not more than five minutes. The Project will implement measures described in **MM AQ 22** to reduce emissions from on-site heavy duty trucks including signs informing truck drivers about diesel health effects and idling regulations, records on fleet equipment and vehicle engine maintenance, and a daily log and monitoring for excess idling. In addition, locally produced and/or manufactured building materials will be used for at least 10 percent of the construction materials used for the Project as described in **MM AQ 18** which reduces the mobile emissions associated with the manufacturing and transport of construction materials.

Collectively, implementation of the above-described State requirements, regional and local measures, and Project design features will result in an approximately 17% reduction in Project-related mobile emissions as compared to BAU (See **Tables 5.7-E and F**).

### **Energy**

The second largest source, approximately 11 percent, of GHG emissions shown in **Table 5.7-D** from the Project is energy consumption from electricity and natural gas.

### **State Regulations**

Energy-related emissions are also heavily regulated at the source, including, but not limited to energy efficiency standards and renewable energy requirements. Because these regulations and polices reduce GHG emissions at the source, the Project will be subject to and therefore implement these energy measures.

Applicable regulations that reduce GHG emissions through energy efficiency standards and renewable energy requirements, which were previously described above in Section 5.7.2, include: RPS; SB 1368; AB 1109; Title 24 building energy efficiency requirements and the CalGreen Code.

As previously described above in Section 5.7.2, California's Renewable Portfolio Standard (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy sources to 33 percent of total retail sales by 2020 as established under SB 1078 and accelerated under SB 107 and SBX1-2. Additionally, SB 1368 prohibits any retail seller of electricity in California from entering into a long-term financial commitment for baseload generation if the GHG emissions are higher than those from a combined-cycle natural gas power plant. As a customer of RPU, the proposed Project will purchase from an increasing supply of renewable energy sources and more efficient baseload generations and thereby reduce GHG emissions. AB 1109, the Lighting Efficiency and Toxic Reduction Act, required the establishment of minimum energy efficiency standards for all general purpose lights. The proposed Project will use these more energy efficient lights and therefore use less electricity and lower GHG emissions in that regard.

The proposed Project is also subject to the CalGreen Code Title 24 building energy efficiency requirements that offer builders better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses. The 2013 Title 24 standards differ from the 2008 standards by requiring usage of less energy for lighting, heating, cooling, ventilation, and water heating. Buildings are also required to be solar-ready, allowing for easier and less expensive installation of photovoltaic or solar thermal panels in the future. The California Energy Commission estimates that the 2013 standards result in nonresidential construction that is 30 percent more efficient than the 2008 standards which went into effect on July 1, 2014 (CBSC 2012). The recently approved 2016 Title 24 standards will further reduce energy consumption from the proposed Project.

### **Regional and Local Measures**

According to the City's RRG CAP, RPU must meet the RPS of 25 percent by 2016, 33 percent by 2020, and 40 percent by 2035. RPU exceeded the 2013 target on 20 percent, achieving 23% of retail sales by qualifying renewables and is well on its way to meeting these targets. While not mandated at this time, the City intends to continue to reduce its carbon portfolio beyond 2020 to include 40 percent renewables by 2035. Since the proposed Project is served by RPU, the CO<sub>2</sub> electricity intensity factor will decrease over time and translate into additional reductions in GHG emissions.

The HERO Program is a public-private partnership administered by WRCOG, offering financing to business owners in the sub-region for the installation of energy efficient, renewable energy, and water conservation improvements. The proposed Project has the opportunity to participate in this program to aid in financing GHG reducing energy efficient, renewable energy, and water conservation improvements. RPU also provides various energy savings programs including an energy audit tools and efficient lighting and appliance rebates that the proposed Project can participate in as a customer of RPU.

### ***Project Design Features***

Lastly, the Project Design Features listed in Section 5.7.4, above will further reduce the Projects GHG emissions from energy consumption. Building shells and components, such as windows, roof systems and electrical systems will be designed to meet California Title 24 Standards for nonresidential buildings. Buildings will also be designed to provide CalGreen Standards with Leadership in Energy and Environmental Design (LEED) features for potential certification. This includes design considerations related to the building envelope, HVAC, lighting, and power systems. Additionally, the architectural expression such as roofs and windows in the buildings will relate to conserving energy.

For future office improvement, refrigerants and HVAC equipment will be selected to minimize or eliminate the emission of compounds that contribute to ozone depletion and global warming. Ventilation and HVAC systems will be designed to meet or exceed the minimum outdoor air ventilation rates described in the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHREA) standards and/or per California Title 24 requirements. Additionally, the proposed Project will implement design features for future office improvement to increase the efficiency of the building envelope (i.e., the barrier between conditioned and unconditioned spaces). This includes installation of insulation to minimize heat transfer and thermal bridging and to limit air leakage through the structure or within the heating and cooling distribution system to minimize energy consumption.

As described in **MM AQ 1** and **MM AQ 2**, the proposed Project will install efficient lighting and lighting control systems. Solar or light-emitting diodes (LEDs) will be installed for outdoor lighting. The site and buildings will be designed to take advantage of daylight, such that daylight is an integral part of the lighting systems in buildings. Lighting will also incorporate motion sensors that turn them off when not in use. As described in **MM AQ 3**, the proposed Project will use trees and landscaping on west and south exterior building walls to reduce energy use and provide vegetative or human-made exterior wall shading devices or window treatments for east, south, and west-facing walls with windows. The Project will also install light colored “cool” roofs over office area spaces and cool pavements as described in **MM AQ 4**. **MM AQ 5** includes the installation of energy efficient heating and cooling systems, appliances and equipment, and control systems that are Energy Star rated. **MM AQ 6** describes how the Project will incorporate Energy Star rated windows, space heating and cooling equipment, light fixtures, appliances, or other applicable electrical equipment. Lastly, the proposed Project will design the buildings to have “solar ready” roofs that will structurally

accommodate later installation of rooftop solar panels as described in **MM AQ 7**. Building operators providing rooftop solar panels will submit plans for solar panels prior to occupancy.

Collectively, implementation of the above-described State requirements, regional and local measures, and Project design features will result in an approximately 31% reduction in Project-related energy emissions as compared to BAU (See **Tables 5.7-E and F**).

### **Water**

As stated previously under *Threshold A*, GHG emissions also result from electricity consumption related to water supply, treatment, and distribution, as well as wastewater treatment. As shown in **Table 5.7-D**, the Project's GHG emissions related to water consumption are approximately one percent of total GHG emissions.

### ***State Regulations***

The Water Conservation Act of 2009 (SB X7-7) sets an overall goal of reducing per-capita urban water use by 20 percent by December 31, 2020. The state is required to make incremental progress toward this goal by reducing per-capita water use by at least 10 percent by December 31, 2015. Reduction in water consumption directly reduces the energy necessary and the associated emissions to convey, treat, and distribute the water and it also reduces emissions from wastewater treatment.

As described above, the 2013 Title 24 standards differ from the 2008 standards by requiring usage of less energy for water heating. Implementation of the CalGreen standards also reduce energy consumptions from water use by requiring the reduction of indoor potable water use by 20 percent using water saving fixtures and/or flow restrictors by the incorporation of sustainability features including installing water-efficient fixtures and appliances (e.g., EPA WaterSense labeled products). The proposed Project will be subject to the Title 24 standards and therefore is consistent with the 20 percent reduction target.

### ***Regional and Local Measures***

The RRG CAP's water conservation and efficiency goal directly aligns with SB X7-7. While this is considered a state measure, it will be up to the local water retailers, jurisdictions, and water users to meet these targets. A number of policies have been established at the local level within the sub-region requiring more efficient use of water, including landscape ordinances that require native or low-irrigation landscaping.

Current efforts by the City that aid in implementing this goal include adoption of the City's Water Efficient Landscape Ordinance (WELO) (Riverside Municipal Code Chapter 19.570) in compliance with AB 1881 in 2009 and pending Draft Water Efficient Landscape Design Guidelines. Other related Ordinances include Recycled Water Ordinance (RMC Chapter 14.28) and Water Conservation Ordinance (RMC Chapter 14.22). The City amended its WELO on December 1, 2015 to be consistent with the State's WELO. All of these efforts and more are outlined in the City's Urban Water Management Plan. Since the proposed Project will be

subject to these regulations and ordinances, along with Title 24 standards and therefore will not conflict with any regional or local policy.

### ***Project Design Features***

The Project Design Features listed in Section 5.7.4, above, will further reduce the Project's GHG emissions from water-usage. The proposed Project will create water-efficient landscapes with a preference for a xeriscape landscape palette as described in **MM AQ 8** and install water-efficient irrigation systems and devices, such as soil moisture based irrigation controls and sensors for landscaping according to the City's Water Efficient Landscape Ordinance. The building design will be water-efficient through the installation of water-efficient fixtures and appliances (e.g. EPA WaterSense labeled products). Watering methods will be restricted in that systems that apply water to non-vegetated surfaces are prohibited and runoff will be controlled. In addition, the proposed Project will include providing education about water conservation and available programs and incentives to the building operators to distribute to employees as outlined in **MM AQ 9**.

Collectively, implementation of the above-described State requirements, regional and local measures, and Project design features will result in an approximately 37% reduction in Project-related water-usage emissions as compared to BAU (See **Tables 5.7-E and F**).

### ***Waste Diversion***

Disposal of solid waste in landfills contributes approximately one percent of GHG emissions from the Project (See **Table 5.7-D**).

### ***State Regulations***

Implementation of the CalGreen code and state measures reduce the amount of solid waste disposed of in landfills. The CalGreen code requires jurisdictions to divert a minimum of 50% of their nonhazardous construction and demolition waste from landfills. The City of Riverside reported a 64 percent waste diversion rate for the year 2006. In addition SB 341 amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75 percent of solid waste generated be source reduced, recycled, or composted by the year 2020, and annually thereafter. The proposed Project is subject to these regulations and will utilize Project Design Features discussed below to meet CalGreen code standards as well as SB 341's policy goal and thereby reduce GHG emissions.

### ***Regional and Local Measures***

The RRG CAP explains that diverting organic items from landfills helps to reduce landfill methane gas generation, and can help prolong the lifespan of area landfills. The City will implement a pilot food scrap and organic waste composting program to be implemented by businesses in special focus areas that could include eco-corridor/green enterprise zone(s), and other businesses throughout Riverside that are interested in participating. By 2035 the City would extend the commercial composting program to all businesses in Riverside. By 2035 the

proposed Project would be able to participate in the composting program and further reduce solid waste related GHG emissions.

### ***Project Design Features***

The Project Design Features listed in Section 5.7.4, above, reduce the Projects GHG emissions from solid waste by including sustainability features requiring reuse and recycling of construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard). As outlined in **MM AQ 10**, the proposed Project will also provide interior and exterior storage areas for recyclables and green waste, and adequate recycling containers located in public areas and the property operator will also provide readily available information provided by the City for employee education about reducing waste and available recycling services. “Green” building materials will also be used where feasible, such as those materials that are resource efficient and recycled and manufactured in an environmentally friendly way as described in **MM AQ 19**.

Collectively, implementation of the above-described State requirements, regional and local measures, and Project design features will result in an approximately 31% reduction in Project-related solid waste emissions as compared to BAU (See **Tables 5.7-E and F**).

In summary, the Project is consistent with the goals established under AB 32. The Project provides emission reductions demonstrating consistency with AB 32 targets, and complies with all present and future regulatory measures developed in accordance with AB 32 and CARB’s Scoping Plan, and incorporates a number of Project design features (listed as **MM AQ 1** through **MM AQ 19**) that would further minimize GHG emissions, as detailed above. Accordingly, the Project will not conflict with any applicable plan, policy, or regulation for the reduction of GHG emissions. Therefore, the impacts are considered **less than significant with mitigation incorporated**.

### **5.7.6 Proposed Mitigation Measures**

An EIR is required to describe feasible mitigation measures which could minimize significant adverse impacts (State *CEQA Guidelines*, Section 15126.4). The proposed Project includes implementation of numerous design features to increase energy efficiency, reduce water consumption, and reduce waste as described in the Project Design Features listed in Section 5.7.4 and listed as **MM AQ 1** through **MM AQ 16**, **MM AQ 18**, **MM AQ 19**, and additional mitigation measures **MM AQ 22** through **MM AQ 24** listed in Section 5.3.15.

### **5.7.7 Environmental Impacts after Mitigation Measures are Implemented**

Implementation of the proposed Project with adherence to applicable regulations and incorporation of the Project Design Features listed as **MM AQ 1** through **MM AQ 16**, **MM AQ 18**, **MM AQ 19**, and additional mitigation measures **MM AQ 22** through **MM AQ 24** listed in Section 5.3.15, will not result in any significant impacts.

### 5.7.8 References

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