3.7 - Greenhouse Gas Emissions

3.7.1 - Introduction

This section describes the existing greenhouse gas emissions and potential effects from project implementation on the site and its surrounding area. Michael Brandman Associates performed air quality analysis for the proposed project, which included greenhouse gas emissions modeling. URBEMIS 2007 Version 9.2 was used to quantify project related emissions. The modeling output is provided in Appendix F, of this Draft EIR.

3.7.2 - Environmental Setting

Climate change is a change in the average weather of the earth that is measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of greenhouse gases needed to stabilize global temperatures and climate change impacts. In its Fourth Assessment Report, the IPCC predicted that the global mean temperature change from 1990 to 2100, given six scenarios, could range from 1.1 degrees Celsius (°C) to 6.4°C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios (Intergovernmental Panel on Climate Change 2007a). The report also concluded that "[w]arming of the climate system is unequivocal," and that "[m]ost of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations."

Consequences of Climate Change in California

In California, climate change may result in consequences such as the following (from California Climate Change Center 2006 and Moser et al. 2009).

- **A reduction in the quality and supply of water from the Sierra snowpack.** If heat-trapping emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. This can lead to challenges in securing adequate water supplies. It can also lead to a potential reduction in hydropower.
- **Increased risk of large wildfires.** If rain increases as temperatures rise, wildfires in the grasslands and chaparral ecosystems of southern California are estimated to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant "fuel" available to burn in the fall. In contrast, a hotter,

drier climate could promote up to 90 percent more northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation.

- **Reductions in the quality and quantity of certain agricultural products.** The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.
- **Exacerbation of air quality problems.** If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.
- **A rise in sea levels resulting in the displacement of coastal businesses and residences.** During the past century, sea levels along California's coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.
- **An increase temperature and extreme weather events.** Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.
- **A decrease in the health and productivity of California's forests.** Climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.

As disclosed in the Yolo County Climate Action Plan, anticipated consequences of climate change in Yolo County include:

- Rising temperatures, leading to increased electricity use for cooling, especially in the summer. By 2020, this could result in a 1- to 3-percent increase in electricity demand.
- Warm-season horticultural crops (e.g., tomatoes, cucumbers, sweet corn, and peppers) could be less viable by 2050. This may prompt a shift to hot-season crops such as melon and sweet potato.
- Climate change could worsen air quality by increasing emissions, accelerating chemical processes, and raising inversion temperatures during summer periods of air stagnation.
- Sea level is expected to rise above present levels by 55 inches or more during the next 100 years. This would exacerbate flooding in already vulnerable regions of Yolo County.

Combined with increased potential for winter flooding, this could threaten the structural integrity of levee and flood control systems, which would place more people and property at risk from flooding.

Greenhouse Gases

Gases that trap heat in the atmosphere are referred to as greenhouse gases. The effect is analogous to the way a greenhouse retains heat. Common greenhouse gases include water vapor, carbon dioxide, methane, nitrous oxides, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. Natural processes and human activities emit greenhouse gases. The presence of greenhouse gases in the atmosphere affects the earth's temperature. It is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Climate change is driven by forcings and feedbacks. Radiative forcing is the difference between the incoming energy and outgoing energy in the climate system. Positive forcing tends to warm the surface while negative forcing tends to cool it. Radiative forcing values are typically expressed in watts per square meter. A feedback is a climate process that can strengthen or weaken a forcing. For example, when ice or snow melts, it reveals darker land underneath which absorbs more radiation and causes more warming. The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere. The global warming potential of a gas is essentially a measurement of the radiative forcing of a greenhouse gas compared with the reference gas, carbon dioxide.

Individual greenhouse gas compounds have varying global warming potential and atmospheric lifetimes. Carbon dioxide, the reference gas for global warming potential, has a global warming potential of one. The global warming potential of a greenhouse gas is a measure of how much a given mass of a greenhouse gas is estimated to contribute to global warming. To describe how much global warming a given type and amount of greenhouse gas may cause, the carbon dioxide equivalent is used. The calculation of the carbon dioxide equivalent is a consistent methodology for comparing greenhouse gas emissions since it normalizes various greenhouse gas emissions to a consistent reference gas, carbon dioxide. For example, methane's warming potential of 21 indicates that methane has 21 times greater warming affect than carbon dioxide on a molecule-per-molecule basis. A carbon dioxide equivalent is the mass emissions of an individual greenhouse gas multiplied by its global warming potential. Greenhouse gases defined by Assembly Bill (AB) 32 (see the Climate Change Regulatory Environment section for a description) include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. They are described in Table 3.7-1.

Table 3.7-1: Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide	Nitrous oxide (laughing gas) is a colorless greenhouse gas. It has a lifetime of 114 years. Its global warming potential is 310.	Microbial processes in soil and water, fuel combustion, and industrial processes.
Methane	Methane is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 21.	Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, and decay of organic matter.
Carbon dioxide	Carbon dioxide (CO_2) is an odorless, colorless, natural greenhouse gas. Carbon dioxide's global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960.	Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.
Chlorofluorocarbons	These are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). Global warming potentials range from 3,800 to 8,100.	Chlorofluorocarbons were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987.
Hydrofluorocarbons	Hydrofluorocarbons are a group of greenhouse gases containing carbon, chlorine, and at least one hydrogen atom. Global warming potentials range from 140 to 11,700.	Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.
Perfluorocarbons	Perfluorocarbons have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Global warming potentials range from 6,500 to 9,200.	Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	Sulfur hexafluoride is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential, 23,900.	This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.
Sources: Compiled from a variety of sources, primarily Intergovernmental Panel on Climate Change 2007a and 2007b.		

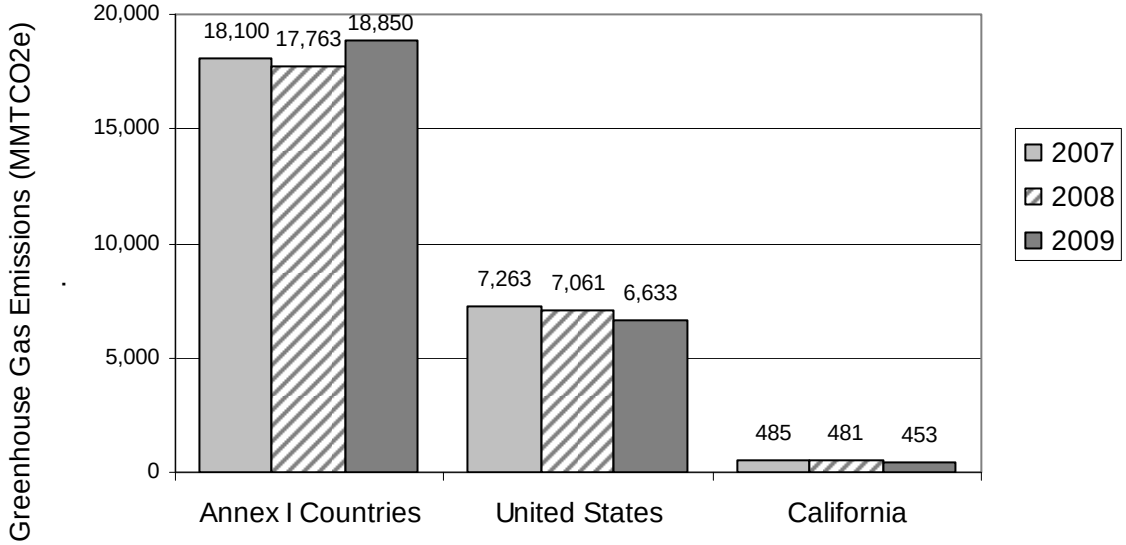
Other greenhouse gases include water vapor, ozone, and aerosols. Water vapor is an important component of our climate system and is not regulated. Ozone and aerosols are short-lived greenhouse gases; global warming potentials for short-lived greenhouse gases are not defined by the IPCC.

Although there could be health effects resulting from changes in the climate and the consequences that can bring about, inhalation of greenhouse gases at levels currently in the atmosphere would not result in adverse health effects, with the exception of ozone and aerosols (particulate matter). The potential health effects of ozone and particulate matter are discussed in criteria pollutant analyses. At very high indoor concentrations (not at levels existing outside), carbon dioxide, methane, sulfur hexafluoride, and some chlorofluorocarbons can cause suffocation as the gases can displace oxygen (Centers for Disease Control and Prevention 2010, Occupational Safety and Health Administration 2003).

Emissions Inventories

Greenhouse gas emissions in 2007, 2008, and 2009 are shown in Figure 3.7-1. Annex I parties refer to countries that joined the United Nations Framework Convention on Climate Change.

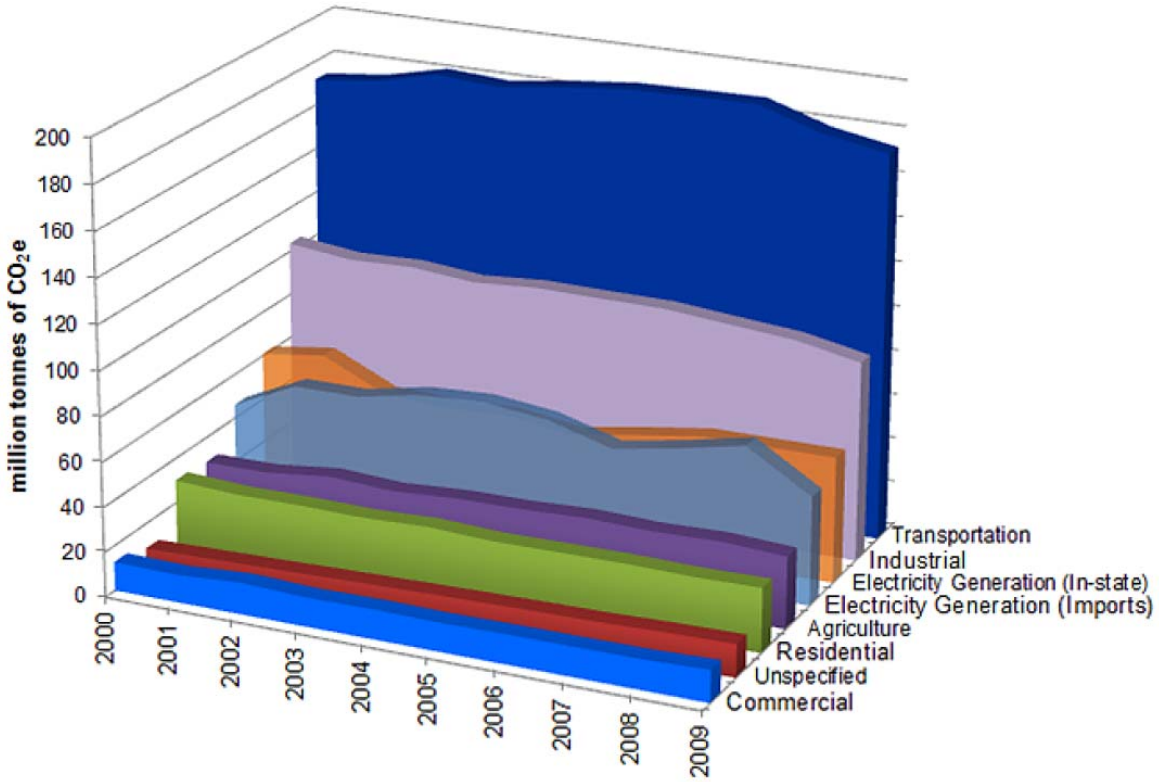
Figure 3.7-1: Greenhouse Gas Emissions Trends



Prepared by Michael Brandman Associates using the following data sources:
California Air Resources Board 2011
U.S. Environmental Protection Agency 2011
United Nations Framework Convention on Climate Change 2010

As shown in Figure 3.7-2, the main contribution of greenhouse gas emissions in California between the year 2000 through 2009 was transportation (Source: California Air Resources Board 2011). The second highest sector was industrial, which includes sources from refineries, general fuel use, oil and gas extraction, cement plants, and cogeneration heat output.

Figure 3.7-2: Greenhouse Gas Emission Trends by Sector in California



3.7.3 - Regulatory Framework

International

Climate change is a global issue involving greenhouse gas emissions from all around the world; therefore, countries such as the ones discussed below have made an effort to reduce greenhouse gases.

Intergovernmental Panel on Climate Change. In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change to assess the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nations Framework Convention on Climate Change (Convention). On March 21, 1994, the United States joined a number of countries around the world in signing the Convention. Under the Convention, governments gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

Kyoto Protocol. The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. The major feature of the Kyoto Protocol is that it sets

binding targets for 37 industrialized countries and the European community for reducing greenhouse gas emissions at average of 5 percent against 1990 levels over the five-year period 2008-2012. The Convention (as discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed more emissions over the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

The United States has not entered into force of the Kyoto Protocol. However, other countries have entered, such as Australia, Canada, China, the European Union (Belgium, Denmark, Germany, the Hellenic Republic, Spain, France, Ireland, Italy, Luxembourg, Netherlands, Austria, Portugal, Finland, Sweden, Great Britain, and Northern Ireland), Japan, Mexico, and New Zealand.

Federal

Prior to the last decade, there have been no concrete federal regulations of greenhouse gases or major planning for climate change adaptation. The following are actions regarding the federal government, greenhouse gases, and fuel efficiency.

Greenhouse Gas Endangerment. *Massachusetts v. EPA* (Supreme Court Case 05-1120) was argued before the United States Supreme Court on November 29, 2006, in which it was petitioned that the EPA regulate four greenhouse gases, including carbon dioxide, under Section 202(a)(1) of the Clean Air Act. A decision was made on April 2, 2007, in which the Supreme Court found that greenhouse gases are air pollutants covered by the Clean Air Act. The Court held that the Administrator must determine whether emissions of greenhouse gases from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.
- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing greenhouse gas emissions standards for vehicles, as discussed in the section "Clean Vehicles" below.

The EPA denied ten petitions for Reconsideration of the Endangerment and Cause or Contribute Findings in 2010. Some of the petitioners included the Ohio Coal Association, Peabody Energy Company, and the State of Texas.

In September 2011, the EPA Office of Inspector General evaluated the EPA's compliance with established policy and procedures in the development of the endangerment finding, including processes for ensuring information quality. The evaluation concluded that the technical support document should have had more rigorous EPA peer review.

In June 2012, a federal appeals court rejected a lawsuit by thirteen states against the EPA. The suit alleged that the EPA violated the law by relying almost exclusively on data from the United Nations Intergovernmental Panel on Climate Change rather than doing its own research or testing data according to federal standards. The states include Virginia, Texas, Alabama, Florida, Hawaii, Indiana, Kentucky, Louisiana, Mississippi, Nebraska, North Dakota, Oklahoma, South Carolina, South Dakota, and Utah. Virginia intends to petition the Supreme Court to review the case.

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's National Highway Safety Administration announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards would cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016). The EPA and the National Highway Safety Administration are working on a second-phase joint rulemaking to establish national standards for light-duty vehicles for model years 2017 and beyond.

On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce greenhouse gas emissions and improve fuel efficiency of heavy-duty trucks and buses. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and 15 percent reduction for diesel

vehicles by 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the agencies are proposing engine and vehicle standards starting in the 2014 model year, which would achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions by 2018 model year.

Mandatory Reporting of Greenhouse Gases. The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory greenhouse gas reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule. The rule requires reporting of greenhouse gas emissions from large sources and suppliers in the United States, and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial greenhouse gases, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of greenhouse gas emissions are required to submit annual reports to the EPA.

New Source Review. The EPA issued a final rule on May 13, 2010 that establishes thresholds for greenhouse gases that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule "tailors" the requirements of these Clean Air Act permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the federal code of regulations, EPA states:

> This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the Clean Air Act, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to greenhouse gas sources, starting with the largest greenhouse gas emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources, but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for greenhouse gas emissions until at least April 30, 2016.

EPA estimates that facilities responsible for nearly 70 percent of the national greenhouse gas emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest greenhouse gas emitters—power plants, refineries, and cement production facilities.

Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units. As required by a settlement agreement, the EPA proposed new performance standards for emissions of carbon dioxide for new affected fossil fuel-fired electric

utility generating units on March 27, 2012. New sources greater than 25 megawatt would be required to meet an output based standard of 1,000 pounds of carbon dioxide per megawatt-hour, based on the performance of widely used natural gas combined cycle technology.

Proposed Energy Tax Prevention Act of 2011. This Republican-submitted Act passed the House of Representatives in April 2011 but has not passed the Senate; therefore, it is not currently a law. If it is passed by the Senate and signed by the president, the Act would amend the Clean Air Act to prohibit the Administrator of the EPA from promulgating any regulation concerning, taking action relating to, or taking into consideration the emission of a greenhouse gas to address climate change. It would exclude greenhouse gases from the definition of "air pollutant" for purposes of addressing climate change. Items except from this Act include the following: implementation and enforcement of the light-, medium-, and heavy-duty vehicle greenhouse gas emission standards and Corporate Average Fuel Economy Standards; implementation of the renewable fuel program; federal research and programs addressing climate change; stratospheric ozone protection; and monitoring and reporting of carbon dioxide emissions. The Act provides that none of such exemptions shall cause a greenhouse gas to be subject to regulations relating to prevention of significant deterioration of air quality or considered an air pollutant for purposes of air pollution prevention and control permits.

Cap and Trade. Cap and trade refers to a policy tool where emissions are limited to a certain amount and can be traded, or provides flexibility on how the emitter can comply. Successful examples in the United States include the Acid Rain Program and the NO_x Budget Trading Program in the northeast. There is no federal cap and trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap and trade.

The Regional Greenhouse Gas Initiative is an effort to reduce greenhouse gases among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps carbon dioxide emissions from power plants, auctions carbon dioxide emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008.

The Western Climate Initiative partner jurisdictions have developed a comprehensive initiative to reduce regional greenhouse gas emissions to 15 percent below 2005 levels by 2020. The partners are California, British Columbia, Manitoba, Ontario, and Quebec. Its cap and trade program is estimated to be fully implemented in 2015.

State

Executive Order S-3-05. Former California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following reduction targets for greenhouse gas emissions:

- By 2010, reduce greenhouse gas emissions to 2000 levels.
- By 2020, reduce greenhouse gas emissions to 1990 levels.
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be an aggressive, but achievable, mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

AB 32. The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that greenhouse gases emitted in California be reduced to 1990 levels by the year 2020. "Greenhouse gases" as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. ARB is the state agency charged with monitoring and regulating sources of greenhouse gases. AB 32 states the following:

> Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

The ARB Board approved the 1990 greenhouse gas emissions level of 427 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) on December 6, 2007 (California Air Resources Board 2007). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 $MMTCO_2e$. Emissions in 2020 in a "business as usual" scenario are estimated to be 596 $MMTCO_2e$.

Under AB 32, the ARB published its Final Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California. Discrete early action measures are currently underway or are enforceable by January 1, 2010. The ARB has 44 early action measures that apply to the transportation, commercial, forestry, agriculture, cement, oil and gas, fire suppression, fuels, education, energy efficiency, electricity, and waste sectors. Of these early action measures, nine are considered discrete early action measures, as they are regulatory and enforceable by January 1, 2010. The ARB estimates that the 44 recommendations are expected to result in reductions of at least 42 $MMTCO_2e$ by 2020, representing approximately 25 percent of the 2020 target.

The ARB's Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State's emissions to 1990 levels by the year 2020 (California Air Resources Board 2008). The Scoping Plan identifies recommended measures for multiple greenhouse gas emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a

different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 greenhouse gas target include:

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

In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. "Capped" strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the inclusion of these emissions within the cap-and trade program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. "Uncapped" strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional greenhouse gas emission reductions.[1]

SB 97 and the CEQA Guidelines Update. Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this

[1] On March 17, 2011, the San Francisco Superior Court issued a final decision in *Association of Irritated Residents v. California Air Resources Board* (Case No. CPF-09-509562). While the Court upheld the validity of the ARB Scoping Plan for the implementation of AB 32, the Court enjoined ARB from further rulemaking under AB 32 until ARB amends its CEQA environmental review of the Scoping Plan to address the flaws identified by the Court. On May 23, 2011, ARB filed an appeal. On June 24, 2011, the Court of Appeal granted ARB's petition staying the trial court's order pending consideration of the appeal. In the interest of informed decision-making, on June 13, 2011, ARB released the expanded alternatives analysis in a draft Supplement to the AB 32 Scoping Plan Functional Equivalent Document. The ARB Board approved the Scoping Plan and the CEQA document on August 24, 2011.

division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the Office of Planning and Research pursuant to subdivision (a)." Section 21097 was also added to the Public Resources Code. It provided CEQA protection until January 1, 2010 for transportation projects funded by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 or projects funded by the Disaster Preparedness and Flood Prevention Bond Act of 2006, in stating that the failure to analyze adequately the effects of greenhouse gases would not violate CEQA.

On April 13, 2009, the Office of Planning and Research submitted to the Secretary for Natural Resources its recommended amendments to the CEQA Guidelines for addressing greenhouse gas emissions. On July 3, 2009, the Natural Resources Agency commenced the Administrative Procedure Act rulemaking process for certifying and adopting these amendments pursuant to Public Resources Code section 21083.05. Following a 55-day public comment period and two public hearings, the Natural Resources Agency proposed revisions to the text of the proposed Guidelines amendments. The Natural Resources Agency transmitted the adopted amendments and the entire rulemaking file to the Office of Administrative Law on December 31, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010.

The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of greenhouse gas emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing CEQA Guidelines to reference climate change.

A new section, CEQA Guidelines Section 15064.4, was added to assist agencies in determining the significance of greenhouse gas emissions. The new section allows agencies the discretion to determine whether a quantitative or qualitative analysis is best for a particular project. However, little guidance is offered on the crucial next step in this assessment process—how to determine whether the project's estimated greenhouse gas emissions are significant or cumulatively considerable.

Also amended were CEQA Guidelines Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. Greenhouse gas mitigation measures are referenced in general terms, but no specific measures are championed. The revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze greenhouse gas emissions in an EIR when a project's incremental contribution of emissions may be cumulatively considerable, however it does not answer the question of when emissions are cumulatively considerable.

Section 15183.5 permits programmatic greenhouse gas analysis and later project-specific tiering, as well as the preparation of Greenhouse Gas Reduction Plans. Compliance with such plans can support

a determination that a project's cumulative effect is not cumulatively considerable, according to proposed Section 15183.5(b).

In addition, the amendments revised Appendix F of the CEQA Guidelines, which focuses on Energy Conservation. The sample environmental checklist in Appendix G was amended to include greenhouse gas questions.

Executive Order S-13-08. Executive Order S-13-08 indicates that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the order, the 2009 California Climate Adaptation Strategy (California Natural Resources Agency 2009) was adopted, which is the " . . . first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Energy Generation and Efficiency

Title 24 and California Green Building Standards. Although these regulations are not specifically enacted to reduce greenhouse gases, they increase energy efficiency for new buildings, thus indirectly reducing greenhouse gas emissions.

SB 1368. In 2006, the State Legislature adopted Senate Bill (SB) 1368, which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission to adopt a performance standard for greenhouse gas emissions for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Because of the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants. Accordingly, the new law will effectively prevent California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to dramatically lower greenhouse gas emissions associated with California's energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out-of-state producers that cannot satisfy the performance standard for greenhouse gas emissions required by SB 1368. The California Public Utilities Commission adopted the regulations required by SB 1368 on August 29, 2007.

Renewable Electricity Standards. On September 12, 2002, Governor Gray Davis signed SB 1078 requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold

Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the ARB (Executive Order S-21-09) to adopt a regulation by July 31, 2010, requiring the state's load serving entities to meet a 33 percent renewable energy target by 2020. The ARB Board approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23.

Vehicle Emissions and Land Use Planning

Pavley Regulations and Fuel Efficiency Standards. California AB 1493, enacted on July 22, 2002, required the ARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks. The regulation was stalled by automaker lawsuits and by the EPA's denial of an implementation waiver. On January 21, 2009, the ARB requested that the EPA reconsider its previous waiver denial. On January 26, 2009, President Obama directed that the EPA assess whether the denial of the waiver was appropriate. On June 30, 2009, the EPA granted the waiver request. On September 8, 2009, the U.S. Chamber of Commerce and the National Automobile Dealers Association sued EPA to challenge its granting of the waiver to California for its standards. California assisted EPA in defending the waiver decision. The U.S. District Court for the District of Columbia denied the Chamber's petition on April 29, 2011.

The standards phase in during the 2009 through 2016 model years. When fully phased in, the near term (2009-2012) standards will result in about a 22-percent reduction compared with the 2002 fleet, and the mid-term (2013-2016) standards will result in about a 30-percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

Low Carbon Fuel Standard - Executive Order S-01-07. The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the executive order established a Low Carbon Fuel Standard and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, the ARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by California Energy Commission on December 24, 2007) and was submitted to ARB for consideration as an "early action" item under AB 32. The ARB adopted the Low Carbon Fuel Standard on April 23, 2009. The Low Carbon Fuel Standard was challenged in the United States District Court in Fresno in 2011. The court's ruling issued on December 29, 2011 included a preliminary injunction against ARB's implementation of the rule. The Ninth Circuit Court of

Appeals stayed the injunction on April 23, 2012 pending final ruling on appeal, allowing the ARB to continue to implement and enforce the regulation.

SB 375. Passing the Senate on August 30, 2008, SB 375 was signed by the Governor on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of greenhouse gas emissions, which emits over 40 percent of the total greenhouse gas emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing greenhouse gas emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies. The Southern California Association of Governments has adopted emissions reductions for per capita light duty vehicles from 2005 levels of 7 percent by 2020 and 13 percent by 2035.

Concerning CEQA, SB 375, section 21159.28 states that CEQA findings determinations for certain projects are not required to reference, describe, or discuss (1) growth inducing impacts or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network if the project:

1. Is in an area with an approved sustainable communities strategy or an alternative planning strategy that the ARB accepts as achieving the greenhouse gas emission reduction targets.
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies).
3. Incorporates the mitigation measures required by an applicable prior environmental document.

Yolo-Solano Air Quality Management District.

The Yolo-Solano Air Quality Management District (Air District) adopted their guidance document, Handbook for Assessing and Mitigating Air Quality Impacts (Handbook), in July 2007. Although the Handbook does not contain an adopted threshold of significance for greenhouse gas impacts, it contains recommendations for evaluating project-generated greenhouse gases.

Yolo County

Yolo County has undertaken several actions to date to reduce greenhouse gases as related to County operations and programs:

- Climate Change Working Group. Yolo County has created a climate change team through the County Administrator's Office and has organized a climate change working group that includes the cities and various districts, to coordinate countywide climate change efforts.

- Cool Counties. The County has committed to the Cool Counties Climate Stabilization Declaration, pledge to reduce greenhouse gas emissions from County operations by 80 percent by 2050.
- California Climate Action Registry. The County has prepared a baseline audit energy usage associated with County operations. This baseline will be used to measure energy usage over time. Through the registry, the County will use a common greenhouse gas emission reporting system and will receive credit for reductions in emissions.
- UC Davis Partnership. The County has engaged civil and environmental engineering students to assist in studying its carbon generation from county operations, and develop policies and strategies to reduce emissions.
- Increasing Energy Efficiency. The County has taken steps to increase the energy efficiency of county operations including replacement of incandescent lights with compact fluorescent bulbs, retrofit of infrastructure in County buildings, installation of computerized climate control in all major county buildings, installation of cogeneration capacity at the Monroe Detention Facility, development of a building closure program to retire less energy-efficient buildings, and a countywide appliance replacement program for Energy Star appliances. The County has a goal of ten percent annual reduction in energy usage through 2013.
- Full-Scale Landfill Bioreactor. The County recovers methane gas, a potent greenhouse gas, from the Central Landfill to generate electricity.
- LEED. The County has adopted Leadership in Energy and Environmental Design (LEED) standards for new county buildings.
- Recycling. All County buildings recycle paper, cardboard, cans, bottles, fluorescent tubes, oil, computers, rigid plastics, agricultural plastics, PVC pipe, toner cartridges, cell phones, batteries, and electronic waste. The County has a goal of 50 percent recycling of all sorted material at the landfill. The County also has a Construction and Demolition Recycling Ordinance that requires diversion and recycling of construction and demolition debris.
- Agricultural Marketing. The Agriculture Commissioner has initiated an agricultural marketing program to reduce "food miles," and therefore result in reductions in carbon dioxide emissions.
- Transportation and Fleet Vehicles. The County has installed charging stations for electric vehicles and uses electric vehicles for commuting between local facilities.
- Personnel Training. County staff attends classes on the California Environmental Quality Act (CEQA) and on climate change issues.
- Tree Planting. The County operates a small nursery that provides tree planting for County facilities.

- Research. The County is involved in a variety of research projects related to energy conservation and control of greenhouse gas emissions.

The County also requires energy efficient project design and landscaping design as a part of the development review process.

General Plan

The Yolo County General Plan includes over 350 policies and programs aimed at reducing greenhouse gas emissions in the unincorporated County and responding to the potential effects of climate change. The following General Plan policies are directly applicable to the project.

- **Goal CO-7:** Energy Conservation. Promote energy efficiency and conservation.
- **Policy CO-7.3:** Require all projects to incorporate energy-conserving design, construction, and operation techniques and features into all aspects of the project including buildings, roofs, pavement, and landscaping.
- **Policy CO-7.9:** Require that new site and structure designs maximize energy efficiency.
- **Policy CO-7.11:** Strongly encourage LEED certification or equivalent for all public, private and existing buildings and strongly encourage LEED Neighborhood Design (ND) certification or equivalent for other applicable projects, particularly within the Specific Plan areas.
- **Goal CO-8:** Climate Change. Reduce greenhouse gas emissions and plan for adaptation to the future consequences of global climate change.
- **Policy CO-8.2:** Use the development review process to achieve measurable reductions in greenhouse gas emissions.
- **Policy CO-8.5:** Promote GHG emission reductions by supporting carbon efficient farming methods (e.g. methane capture systems, no-till farming, crop rotation, cover cropping); installation of renewable energy technologies; protection of grasslands, open space, oak woodlands, riparian forest and farmlands from conversion to other uses; and development of energy-efficient structures.
- **Policy CO-8.6:** Undertake an integrated and comprehensive approach to planning for climate change by collaborating with international, national, State, regional, and local organizations and entities.
- **Policy CO-8.7:** Integrate climate change planning and program implementation into County decision making.
- **Policy CO-8.8:** Increase public awareness about climate change and encourage county residents and businesses to become involved in activities and lifestyle changes that will aid in reduction of greenhouse gas emissions.
- **Policy CO-5.19:** Strive for "water-neutral" development with new water demand offset by efficiency improvements elsewhere in the system. Require all new developments to offset new water demands to the greatest extent feasible.

Climate Action Plan

Yolo County adopted the Yolo County Climate Action Plan: A Strategy for Smart Growth Implementation, Greenhouse Gas Reduction, and Adaptation to Global Climate Change, in 2011. The Yolo County Climate Action Plan (CAP) is an implementation action of the 2030 General Plan. The CAP contains the County's emissions inventories and projections, emission reduction goals, strategies to reduce emissions, and an implementation and monitoring plan. The CAP also addresses likely impacts to the County resulting from the environmental effects of climate change, and adaptation strategies to address these effects.

The County prepared emissions projections for 2020, 2030, and 2050 based on population and employment growth forecasts. The County's emission reduction goals include the mandatory AB 32 target of reducing emissions to 1990 levels by year 2020, as well as the following reduction goals:

- 27 percent below 1990 levels by 2030
- 53 percent below 1990 levels by 2040
- 80 percent below 1990 levels by 2050

However, the County's General Plan extends only to 2030, which makes projecting 2050 activity and emission levels highly uncertain. Therefore, although the CAP contains emission reduction goals for years 2040 and 2050, the CAP does not address the steps needed to achieve reduction targets beyond the General Plan horizon year of 2030

The CAP contains four main strategies to achieve the reduction goals, quantification of state-level emission reductions achieved through regulation, and a strategy for climate change adaptation. The County's strategies for emission reductions target the following specific sectors of greenhouse gas emissions: agriculture, transportation and land se, building energy, and solid waste and wastewater energy. The focus of the CAP's efforts is directed toward the building energy sector, requiring energy efficiency is new buildings, energy efficiency retrofits to existing facilities, use of renewable energies, photovoltaic systems on residences and commercial facilities, solar water heating systems, and interior and landscape water efficiencies.

The greatest emission reductions anticipated to be achieved through the County's CAP is through requiring use of renewable energy throughout the county through the Community Choice Aggregation Program. As stated by the CAP, the Community Choice Aggregation program is the single most important measure in the CAP, accounting by itself for 31 percent of greenhouse gas reductions in 2020 and 15 percent in 2030.

The County is identified as an area with high potential for development of photovoltaic energy systems, with the National Renewable Energy Laboratory (NREL) data indicating that the County receives enough energy from the sun to produce approximately 5.0 to 5.5 kilowatt-hours per square meter per day (kWh/m2/day). The following CAP measures are directly applicable to the project:

- Measure E-1: Pursue a Community Choice Aggregation Program.
- Measure E-3: Reduce energy consumption in new residential and non-residential units.
- Measure E-4: Increase on-site renewable energy generation to reduce demand for grid energy.
- Measure E-7: Promote weather-based irrigation systems and water efficient turf management.

3.7.4 - Methodology

The analysis that follows was prepared using a variety of data sources and air quality models. The energy efficiency and solar efficiency data is from the National Renewable Energy Laboratory (NREL) PVWatts calculator.

3.7.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, greenhouse gas emissions impacts resulting from the implementation of the proposed project would be considered significant if the project would:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

3.7.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Greenhouse Gas Emissions

Impact GHG-1:	**The project would generate greenhouse gas emissions; however, these emissions would not result in a significant impact on the environment.**

Impact Analysis

The project would emit greenhouse gases during construction and operation. Construction emissions were estimated using URBEMIS 2007. However, URBEMIS output contains only carbon dioxide emissions, and are provided in Appendix F for informational purposes.

Grasslands Site

Construction

The Air District does not have thresholds or guidance regarding the significance of construction related emissions. However, that does not mean a significance finding should not be identified. AB 32 requires that emissions within the State be reduced to 1990 levels by the year 2020. Construction of the project is assumed to be completed within 4 months of the start of construction. Furthermore, construction is assumed to be completed in 2013. These construction emissions would be limited in duration and scope and, therefore, would be less than significant.

Operation

As described in Section 7, Effects Found Not to Be Significant, the project would result in minimal operational trips. The operation of the Grasslands site, approximately 28 peak-day trips or 10 average annual daily trips. Trips to the site would be comprised of operational trips for maintenance and panel washing, educational trips for K-12 students in Yolo County to learn about environmental sustainability, and public trips associated with recreation, wildlife viewing, environmental sustainability education.

The project will generate zero-emission solar power that is intended to reduce the use of fossil fuels in California electric power production. The lowest-emitting fossil-fueled power plants are combined cycle gas turbine facilities. The project has a capacity of 5 megawatts (MW). Accounting for clouds and hours of darkness and an average of fixed tilt and one axis tracking, the project could produce over 9,000 megawatt-hours (MWh) per year (see Appendix F for calculations).

The project will also result in substantial reductions in greenhouse gases from offsetting the use of fossil-fueled power plants. The project's electricity would save over 2,990 metric tons of carbon dioxide equivalent ($MTCO_2e$) emissions in its first year of operation. Power output from solar panels declines at approximately 0.5 percent per year. The project would save over 96,376 $MTCO_2e$ over a 35-year period. Therefore, operation of the project would result in an overall reduction in greenhouse gas emissions and would be less than significant.

Beamer/Cottonwood Site

Construction

The Air District does not have thresholds or guidance regarding the significance of construction related emissions. However, that does not mean a significance finding should not be identified. AB 32 requires that emissions within the State are reduced to 1990 levels by the year 2020. Construction of the project is assumed to be completed within 4 months of the start of construction. Furthermore, construction is assumed to be completed in 2013. These construction emissions would be limited in duration and scope and, therefore, would be less than significant.

Operation

As described in Section 7, Effects Found Not to Be Significant, the project would result in minimal operational trips. Trips to the site would consist of operational trips for maintenance as needed and biannual panel washing.

The project will generate zero-emission solar power that is intended to reduce the use of fossil fuels in California electric power production. The lowest-emitting fossil-fueled power plants are combined cycle gas turbine facilities. The project has a capacity of 0.8 MW. Accounting for clouds and hours of darkness and an average of fixed tilt and one axis tracking, the project could produce over 1,469 megawatt-hours (MWh) per year (see Appendix F for calculations).

The project will also result in substantial reductions in greenhouse gases from offsetting the use of fossil-fueled power plants. The project's electricity would save approximately 485 $MTCO_2e$ emissions in its first year of operation. Power output from solar panels declines at approximately 0.5 percent per year. The project would save over 15,600 $MTCO_2e$ over the 35-year period. Therefore, operation of the project would result in an overall reduction in greenhouse gas emissions and would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

Grasslands Site

No mitigation is necessary.

Beamer/Cottonwood Site

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Greenhouse Gas Reduction Plan Consistency

Impact GHG-2:	**The project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.**

Impact Analysis

Grasslands Site

The project would directly implement multiple emission reduction measures of the CAP, including:

- Measure E-1: Pursue a Community Choice Aggregation Program.
- Measure E-3: Reduce energy consumption in new residential and non-residential units.
- Measure E-4: Increase on-site renewable energy generation to reduce demand for grid energy.
- Measure E-7: Promote weather-based irrigation systems and water efficient turf management.

The project would provide renewable energy for use within the Community Choice Aggregation program (Measures E-1 and E-4). The EEC would be designed and operated as a high-efficiency building, incorporating energy efficient design, thereby implementing Measure E-3. In addition, native and drought-tolerant landscaping would be installed and would utilize rainwater for landscape irrigation (Measure E-7).

Therefore, the project would not conflict with the CAP and would result in a less than significant impact.

Beamer/Cottonwood Site

The project would directly implement multiple emission reduction measures of the CAP, including:

- Measure E-1: Pursue a Community Choice Aggregation Program.
- Measure E-4: Increase on-site renewable energy generation to reduce demand for grid energy.
- Measure E-7: Promote weather-based irrigation systems and water efficient turf management.

The project would provide renewable energy for use within the Community Choice Aggregation program. The project would directly tie in to existing County facilities, thereby increasing the onsite use of renewable energy. In addition, native and drought-tolerant landscaping would be installed around the perimeter fencing.

Therefore, the project would not conflict with the CAP and would result in a less than significant impact.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

Grasslands Site

No mitigation is necessary.

Beamer/Cottonwood Site

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.