



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

Proposed Amendments
Rule 2301
Emission Reduction Credit Banking

(District CEQA Project # 20090452)

Final Environmental Impact Report

January 19, 2012



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Chapter 1- Executive Summary

This rulemaking project consists of adopting amendments to District Rule 2301 (Emission Reduction Credit Banking) to allow voluntary banking of greenhouse gas (GHG) emission reductions. The draft amendments would provide a regulatory mechanism for sources to preserve voluntary GHG emission reductions; provide a regulatory mechanism for the surrender of said GHG emission reductions to offset or mitigate proposed GHG emission increases; and would establish eligibility standards and administrative practices to assure that banked reductions are surplus of required reductions and are voluntary. The draft amendments neither impose conditions requiring installation of pollution control equipment nor require facilities to bank GHG emission reductions. The draft amendments do not define eligible uses of GHG reductions that are banked under this rule.

The District finds that there is no substantial evidence, in light of the whole record before the District, that the project could have a significant effect on the environment, including a cumulatively significant impact on global climate change.

Through the public participation process the District identified the following project specific areas of controversy:

- Use of banked GHG emissions which are not “additional” to any other regulatory requirement.
- Establishment of the baseline period.
- Permanence of banked GHG reductions
- Potential displacement of emissions to other locations - “Leakage”

These areas of controversy are addressed in Chapter 6 of this document.

A Notice of Preparation (NOP) and Initial Study (IS) for the proposed project was circulated for public comment from February 24, 2010 to March 26, 2010 (SCH # 2010022066). The IS demonstrates that the project would not have a significant adverse impact on the environment. GHG emissions and their impact on global climate change is a known subject of scientific and political debate. Recognizing the diversity of views received during an earlier rule development process for Rule 2301, the District decided to prepare an Environmental Impact Report (EIR) to minimize potential delays in implementation of this project. The scope of the EIR is limited to addressing potential impacts implementation would have on global climate change. In response to the NOP/IS, the District received no comments regarding its determination of environmental significance or the proposed scope of the EIR.

There are no known project specific environmental issues to be resolved.



Chapter 2 - Project Description

2.1. Project Description

This rulemaking project consists of adopting amendments to District Rule 2301 (Emission Reduction Credit Banking) to allow voluntary banking of greenhouse gas (GHG) emission reductions. The draft amendments would provide a regulatory mechanism for sources to preserve voluntarily GHG emission reductions; provide a regulatory mechanism for the surrender of said GHG emission reductions to offset or mitigate proposed GHG emission increases; and would establish eligibility standards and administrative practices to assure that banked reductions are surplus of required reductions and are voluntary. The draft amendments neither impose conditions requiring installation of pollution control equipment nor require facilities to bank GHG emission reductions. The draft amendments do not define eligible uses of GHG reductions that are banked under this rule.

2.2. Project Objectives

The objectives of the proposed project are to establish a District administered mechanism to:

- Recognize high quality GHG emission reductions generated within the San Joaquin Valley Air Basin
- Provide a mechanism for the trading of banked GHG emission reductions
- Promote the early reductions of GHGs and their associated criteria and toxic pollutants in the District
- Via the District's extensive experience in banking criteria pollutant emissions, provide a measure of certainty and quality of banked GHG emission reductions lacking in some other GHG registries
- Provide a mechanism for persons to purchase and retire banked GHG emission reductions for societal benefit
- Provide a mechanism for persons to purchase and retire banked GHG emission reductions for California Environmental Quality Act (CEQA) mitigation purposes, within the constraints of the District's CEQA/GHG policy and guidance.
- Allow banked protocol-based GHG emission reductions to be used for compliance offsets in the California Air Resource Board (CARB) cap-and-trade program, provided the CARB cap-and-trade regulation includes such provisions and CARB approves such a use.



2.3. Project Location, Land Use and Zoning

This project is an amendment to existing District Rule 2301 (Emission Reduction Credit Banking), which applies to all transactions involving the storage, transfer, or use of emission reduction credits of affected pollutants within the boundaries of the San Joaquin Valley Unified Air Pollution Control District (see Appendix A, Map of District boundaries). Land use and zoning parameters are not applicable to this project.

2.4. Authority

This project is an amendment to existing District Rule 2301 (Emission Reduction Credit Banking). There are no public agencies that have discretionary authority over the proposed project, other than the San Joaquin Valley Air Pollution Control District. As such, the District is the Lead Agency for this project.

The San Joaquin Valley Air Pollution Control District (District) is the local agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the Basin. The District operates monitoring stations in the San Joaquin Valley air basin (SJVAB), develops and enforces rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning (AQMP) documents, and conducts source testing and inspections. The District AQMP includes control measures and strategies to be implemented to attain state and federal ambient air quality standards in the SJVAB. The District then implements these control measures as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment.

On August 21, 2008 the San Joaquin Valley Air Pollution Control District's Governing Board adopted the Climate Change Action Plan (CCAP). One of the items that the CCAP authorized was the development of a mechanism, through a public process, to allow facilities to preserve greenhouse gas emission reductions that occurred in the District.

These draft amendments to Rule 2301 are implementing this mandate of the District's Governing Board. In general, the SJVAPCD's legal authority to adopt rules is based in the California Health and Safety Code Sections 39002, 40000, and 40001.

Separately, California CEQA guidance allows for lead agencies to develop programs to address the cumulative impacts of projects, provided such a program itself is subject to a CEQA review. The draft amendments to Rule 2301 could be part of a program developed by a lead agency to address the cumulative impacts of projects GHG emissions under CEQA, and in fact the District is proposing these changes as an important part of the District's efforts to address such situations.



2.5. Decision to Prepare an EIR and Scope of EIR

2.5.1. Introduction

At the time of the adoption of a rule or regulation requiring the installation of pollution control equipment, establishing a performance standard, or establishing a treatment requirement, all air pollution control districts and air quality management districts, as defined in Section 39025 of the Health and Safety Code, must perform an environmental analysis of the reasonably foreseeable methods by which compliance with that rule or regulation will be achieved (CCR §15187(a)). An EIR is prepared by the agency at the time of adoption of a rule or regulation satisfies CCR §15187 requirements provided that the document contains the following information:

- An analysis of reasonably foreseeable environmental impacts of the methods of compliance;
- An analysis of reasonably foreseeable feasible mitigation measures relating to those impacts; and
- An analysis of reasonably foreseeable alternative means of compliance with the rule or regulation, which would avoid or eliminate the identified impacts.

Rule 2301 is a voluntary banking rule that provides a regulatory mechanism for sources to store emission reduction credits (ERCs) for later use as offsets where allowed by District, state, and federal rules and regulations. The rule also provides a regulatory mechanism for sources to transfer ERCs to other sources for use as offsets as allowed by Rule 2201 (New and Modified Stationary Source Review Rule), or state and federal rules and regulations. The rule defines eligibility standards, quantitative procedures and administrative practices to ensure that ERCs are real, permanent, quantifiable, surplus, and enforceable. As such, the rule neither mandates specific methods of generating emission reduction credits, nor mandates specific uses of banked emission reduction credits. Accordingly, the most the District can analyze for purposes of CCR §15187(a) is the impacts, if any, of implementing rule provisions that establishes form, structure, and rigor to the currently existing ad hoc process of identifying potential GHG emission reduction credits and their use as mitigation under CEQA.

2.5.2. Scope of EIR

A Notice of Preparation (NOP) and Initial Study (IS) for the proposed project was circulated for public comment from February 24, 2010 to March 26, 2010 (SCH # 2010022066). No public comments were received. The IS demonstrates that implementing the project would not have a significant adverse impact on the environment. The reader is referred to the NOP/IS for discussion of



environmental topics not considered in this EIR, and the rationale for exclusion of each environmental topic. The NOP/IS can be found in Appendix A.

GHG emissions and their impact on global climate change is a known subject of scientific and political debate. Recognizing the diversity of views received during the rule development process the District decided to prepare an Environmental Impact Report (EIR) to minimize potential delays in implementation of this project. The scope of the EIR is limited to addressing potential impacts implementation would have on global climate change.

2.6. Intended Uses of the EIR

The EIR is an informational document that is intended to inform decision-makers, Responsible or Trustee agencies, and the general public of potential environmental effects of the proposed project. Furthermore, the Final EIR is intended to be a decision-making tool that provides full disclosure of the environmental consequences associated with implementing the proposed project. To the extent that local public agencies, such as cities, county planning commissions, etc., are responsible for making land use and planning decisions related to the mitigation of project specific GHG emission impacts, they could rely on the EIR during their decision-making process.

2.7. Process Used in Developing Draft Rule Amendments

To investigate the various issues concerning the development of a mechanism to bank GHG emission reductions, the District formed a diverse technical workgroup consisting of District staff, land use agency representatives, industry representatives, agricultural representatives, environmental group representatives, and other interested parties. The District asked these stakeholders to participate in this process to gather ideas and issues from as many and as varied perspectives as possible, and to allow the District to develop a program that had benefits for Valley residents and businesses. This workgroup met several times in public meetings during late 2008 and early 2009, and engaged in a robust and frank discussion of pros and cons of establishing a carbon exchange. For a summary of the stakeholder contributions during this process the reader is referred to Appendix A of the September 7, 2011, *Final Staff Report for Rule 2301 (Emission Reduction Credit Banking)*, incorporated herein by reference.

The workgroup investigated several areas of interest regarding a GHG emission reduction banking program, including:

- The differences between the CARB cap-and-trade regulation and a GHG emission reduction banking program. Succinctly, the CARB cap-and-trade regulation is a method to reduce actual GHG emissions by operating under a declining GHG cap, whereas GHG emission reduction banking is a method to



- preserve GHG emission reductions that are in excess of any GHG emission reduction requirement, including reductions required by the CARB cap-and-trade regulation;
- Potential uses of banked GHG emission reductions. Banked GHG emission reductions could possibly be used to provide mitigation in the CEQA process, as a means to comply with a GHG cap-and-trade program, or other purposes;
 - A review of other GHG emission reduction registration programs currently in existence was undertaken, including the Chicago Climate Exchange, New York Climate Exchange, Northeast Climate Exchange, Climate Action Reserve, and SCAQMD's SoCal Climate Solutions Exchange;
 - Required elements of a District-administered GHG emission reduction banking program were discussed, including the establishment of criteria for GHG emission reduction banking, the use of CARB protocols, and the concept of additionality to quantify some GHG emission reductions. It was identified that some of the processes the District currently has in place for criteria pollutant emission reduction banking could be applied to GHG emission reduction banking;
 - The advantages and disadvantages of development of a GHG emission reduction banking program; and
 - Alternatives to the development of a District administered GHG emission reduction banking program were discussed, including the District's possible role in the Climate Action Reserve as a GHG emission reduction project verifier and/or providing technical assistance to project proponents quantify and mitigate their projects GHG emissions as part of the CEQA process.

A more detailed discussion of the above topics and workgroup members' various perspectives and conclusions are documented in the *Report to the APCO Regarding the Development of the San Joaquin Valley Carbon Exchange*, dated March 16, 2009, incorporated herein by reference.

While there was no consensus among all of the technical workgroup members, District staff's analysis of the information gathered during this public process led to their recommendation to the APCO to develop a mechanism to allow the banking of GHG emission reductions. District staff believes that by developing a program that allows the issuance of banked GHG emission reductions for those projects that are not addressed by a CARB approved protocol, and those projects that are addressed by such protocols, the concerns of the technical workgroup will be satisfactorily addressed and the advantages of such a program can be realized to the benefit of Valley businesses and residents.

2.8. Discussion of Draft Rule Amendments

The draft amendments to Rule 2301, Emission Reduction Credit Banking, incorporate a method to bank voluntary GHG emission reductions. While the CCAP indicated that such a system would be contained in a rule called the San Joaquin Valley Carbon Exchange, staff proposes that these provisions be



incorporated into Rule 2301. A separate rule allowing the banking of GHG emission reductions is not required.

The goals of the draft amendments to Rule 2301 are to provide a mechanism to preserve voluntary high quality greenhouse gas (GHG) emission reductions.

The draft rule will allow the use of banked GHG emission reductions for any purpose and will not impose any restrictions on their use. The main use that is anticipated for banked GHG emission reductions is to be surrendered as a method to mitigate a project's GHG emissions as part of the CEQA process.

The potential use of banked GHG emission under the CARB cap-and-trade regulation will be subject to the requirements of that regulation. As proposed, District banked GHG emission reductions are not allowed for use as compliance offsets in the CARB cap-and-trade regulation. The CARB cap-and-trade regulation is subject to change in the future.

The draft amendments to Rule 2301 will allow for GHG emission reductions that fall into two different categories to be banked with the District, as discussed below.

2.8.1. Non-protocol GHG Emission Reductions

In quantifying this type of GHG emission reduction the District would use the criteria in Rule 2301, i.e. that the emission reductions be real, enforceable, permanent, surplus, and quantifiable. The District has a tremendous amount of experience in using these criteria and validated techniques to quantify criteria pollutant emissions reductions, and would simply be expanding this rule to extend the same type of time-tested analyses to quantifying and validating GHG emissions reductions.

The District anticipates that the most probable use of banked ERCs quantified without CARB approved protocols would be retirement to mitigate project related GHG emissions during the CEQA process. Under CEQA, the Lead Agency for a particular project has discretionary authority to determine what mitigation measures are appropriate and feasible. When serving as the Lead Agency in the CEQA process, the District would allow retirement of banked GHG ERCs that were quantified without CARB approved protocols as a method to mitigate a project's GHG emission impacts. When serving as a responsible or commenting agency in the CEQA process, the District would support the Lead Agency's use of this type of GHG mitigation, provided the Lead Agency is following the District's guidance on addressing GHG emissions under CEQA.

GHG emission reductions achieved by a facility to comply with the CARB cap-and-trade regulation are required by the regulation, i.e. the facility is relying on the reduction to satisfy, at least in part, the requirements of the CARB cap-and-



trade regulation. As such, these reductions are not surplus and cannot be banked.

Excluding GHG emission reductions achieved in compliance with the CARB cap-and-trade regulation ensures that the reductions made to comply with the cap-and-trade regulation are not double counted. Thus, individual project GHG emission increases at capped sources cannot result in an overall GHG increase, and in fact will result in an overall decrease in GHG emissions.

The CARB cap-and-trade regulation sets a statewide limit on the emissions from sources responsible for 80 percent of California's greenhouse gas emissions and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The program is designed to provide covered entities the flexibility to seek out and implement the lowest-cost options to reduce emissions. The cap-and-trade program also works in concert with other measures, such as standards for cleaner vehicles, low-carbon fuels, renewable electricity and energy efficiency, and complements and supports California's existing efforts to reduce smog-forming and toxic air pollutants." Companies are not given a specific limit on their greenhouse gas emissions but must supply a sufficient number of allowances (each covering the equivalent of one ton of carbon dioxide) to cover their annual emissions. Each year, the total number of allowances issued in the state drops, requiring companies to find the most cost-effective and efficient approaches to reducing their emissions. By the end of the program in 2020 there will be a 15 percent reduction in greenhouse gas emissions compared to today, reaching the same level of emissions as the state experienced in 1990, as required under AB 32.

The CARB cap-and-trade regulation ensures that there is an overall decrease in GHG emissions from capped sources. As such, any project at a capped source that results in an increase in GHG emissions will be fully mitigated through implementation of the CARB cap-and-trade regulation. The CARB cap-and-trade regulation in itself ensures that there is an overall decrease in GHG emissions from capped sources regardless of any individual project that would by itself increase GHG emissions. Thus, during the CEQA process, individual projects at facilities subject to the CARB cap-and-trade regulation would be determined to have a less than significant cumulative impact on global climate change.

Separately, GHG emission reductions that occur as a collateral benefit of an action taken by a facility that is not required by a GHG regulation are surplus GHG emission reductions. As such, quantifiable GHG emission reductions are not specifically required by a GHG regulation could be banked.

As discussed above, the main anticipated use of banked GHG reductions is expected to be the generation and retirement of such emission reductions to provide GHG mitigation as part of the CEQA process. Pursuant to the District's CEQA policy, when the District is the lead agency one option for a project to be



deemed to have a less than cumulatively significant impact on global climate change is to provide GHG mitigation equal to 29% of the project's GHG emission increase, compared to the baseline case. This quantity of mitigation is independent of other actions taken by the facility (or other facilities from which the banked GHG emission reductions are acquired) that result in a GHG emission reduction. As such banked GHG emission reductions would represent an actual reduction in GHG emissions and retirement of such ERCs would be appropriate mitigation under the District's GHG CEQA policy and guidance.

By providing a method for facilities to generate banked GHG emission reductions from a wide variety of emission reduction projects and allowing the transfer and retirement of such ERCs, the District will provide a mechanism to assist facilities to adequately address their project's GHG emissions in the CEQA process. Emission reductions would not be required to be additional, i.e. GHG emission reductions that occur as a collateral benefit of another requirement may qualify for banking, provided they are surplus of existing GHG reduction regulations and requirements.

It is expected that many different types of GHG emission reduction projects would qualify for banking using this approach, and because the District's GHG CEQA policy and guidance allow the use of a majority of such reductions, such reductions would be able to be used to mitigate GHG emissions increases under CEQA, provided the lead agency is using the District's GHG CEQA guidance.

2.8.2. Protocol-based GHG Emission Reduction Credits

In addition to the types of projects described above, the District would be able to bank GHG emission reductions that rely on a CARB approved GHG emission reduction project protocol. CARB approved GHG emission reduction project protocols include detailed procedures on how to quantify GHG emission reductions for specific project types and specific criteria to ensure that the emission reductions are additional.

Emission reductions quantified using such protocols (known as compliance offsets) can be used to a limited degree by facilities to comply with the AB32 cap-and-trade regulations as adopted on Dec 16, 2010 if the reductions are registered with a qualified third party offset program. Furthermore, to be interchangeable with other emission reduction registries, e.g. Climate Action Reserve or the Chicago Climate Exchange, GHG emission reductions would likely have to be quantified pursuant to a CARB approved emission reduction project protocol.

As specified by CARB, for an emission reduction to be additional it must not be due to (either directly or indirectly) a routine replacement of equipment or due (either directly or indirectly) to any regulatory requirement, including any requirement of AB32 or any local, State, or Federal rule requirement. The



requirement that GHG emission reductions be additional means that the actions that generate the emission reduction go beyond any type of requirement that would have the effect (even if not the target of the requirement) of reducing GHG emissions and is due primarily with the intent of generating GHG emission reductions. The requirement that emission reductions be additional is generally more stringent than the Rule 2301 requirement that emission reductions be surplus, i.e. in excess of any current or proposed regulatory requirement that targets that specific pollutant.

As of Dec 16, 2010, there are four currently approved CARB GHG emission reduction project protocols: ozone depleting substances projects, livestock projects, urban forests projects, and U.S. forest projects.

The CARB cap-and-trade regulation allows the use of GHG compliance offsets registered with CARB or with qualified third party offset programs as a means of compliance. California Code of Regulations Article 5, Subarticle 14, section 95990 of the regulation specifies criteria that third party offset programs must meet. One of these criteria is that "the program's primary business is operating an offset project registry for voluntary or regulatory purposes". While a District run program does not meet this criterion, the regulation may be amended in the future to allow District's to operate a qualified third party offset program. This rule will position the District to respond quickly when such a change is made.

In general, the development and CARB approval process for GHG emission reduction project protocols (i.e. approved by incorporation into the cap-and-trade regulation) is generally a very involved and time consuming process. Additional protocols are currently being developed by the Climate Action Reserve and the California Air Pollution Control Officers' Association that may be submitted for CARB incorporation into the regulation in the future.

If Valley businesses or other local entities determine that there is a need for a new CARB approved GHG emission reduction project protocol (to allow such emission reductions to be used for compliance in the CARB cap-and-trade regulation compliance), under this rule the District could develop such a protocol and submit it to CARB for their approval. Due to the District's extensive experience with criteria pollutant emission reduction banking and it's proactive approach to providing Valley businesses and residents with assistance in meeting California's climate change issues, we believe that the District could develop such protocols that would address Valley business and residents concerns in a timely and efficient manner.

GHG emission reductions that are additional and quantified using CARB approved GHG emission reduction project protocols are also intended to be interchangeable with GHG emission reductions in other registries.



Finally, we should note that reductions banked under the non-protocol requirements of the rule would be eligible for re-examination and potential re-banking after a protocol is developed for that type of reduction, to the extent allowed by the approved protocol.

2.9. Implementation of Draft Rule Amendments

Applications to bank GHG emission reductions will take the same form as applications that are currently used for the more traditional criteria pollutant emission reductions. Such applications will be subject to the prevailing fee structure in District Rule 3060 (Emission Reduction Credit Banking Fee). This rule requires that a filing fee and an analysis fee be paid for the evaluation of the emission reductions and issuance of an Emission Reduction Certificate (ERC). Subsequent transactions for a particular ERC are also subject to filing fees.

The District currently has a computerized system in place to issue, transfer, and track the use of ERCs for affected pollutants. Such ERCs are issued in an amount (lb.) per calendar quarter. All valid ERCs are included in an ERC registry that is available on the District's website.

This existing system, with appropriate modifications, will be used to issue, transfer, retire, and track the use of GHG ERCs issued as CO₂ equivalents. The computerized system will be revised to reflect that GHG ERCs are issued on annual amounts (not quarterly) and in units of metric tons (1,000 kg) per year.

In addition, GHG ERCs will be clearly conditioned to reflect the CARB-approved protocol upon which they are based. Likewise, ERCs that are not based on a protocol will be clearly indicated. These separate categories of ERCs will be tracked and reported separately on the District website, so that buyers and sellers of such credits will have a clear indication of the availability of various types. In addition, the District will track, and will display on the District Website, purchase prices of all transactions.

For a detailed discussion of the draft rule amendments and District implementation of the project, the reader is referred to the Final Staff Report Rule 2301 (Emission Reduction Credit Banking), September 7, 2011 and Draft Rule 2301 (Emission Reduction Credit Banking), September 7, 2011.



Chapter 3 – Environmental Setting

3.1. Introduction

CCR §15125 requires that an EIR include a description of the environment within the vicinity of a proposed project as it exists at the time the NOP/IS is published, or if no NOP/IS is published, at the time the environmental analyses commences from both a local and regional perspective. To provide context for the analysis of the project's cumulative impact on global climate change, this chapter presents an overview of the scientific, statutory and regulatory framework behind determining environmental significance of project specific GHG emissions.

3.2. Global Warming and Climate Change

Briefly stated, global climate change (GCC) is the cumulative change in the average weather of the earth that may be measured by changes in temperature, precipitation, storms, or wind. Global Climate Change is now generally accepted by the scientific community to be occurring and caused by greenhouse gases (GHG). Greenhouse gases are gases that trap heat in the atmosphere. The scientific and political communities in the State of California have collectively concluded that a significant and growing scientific body of evidence supports the need for regulating GHG emissions. Compilations of data and analyses, such as the 2007 report from the Intergovernmental Panel on Climate Change (IPCC), have provided a generally accepted scientific basis for implementing climate change policy.

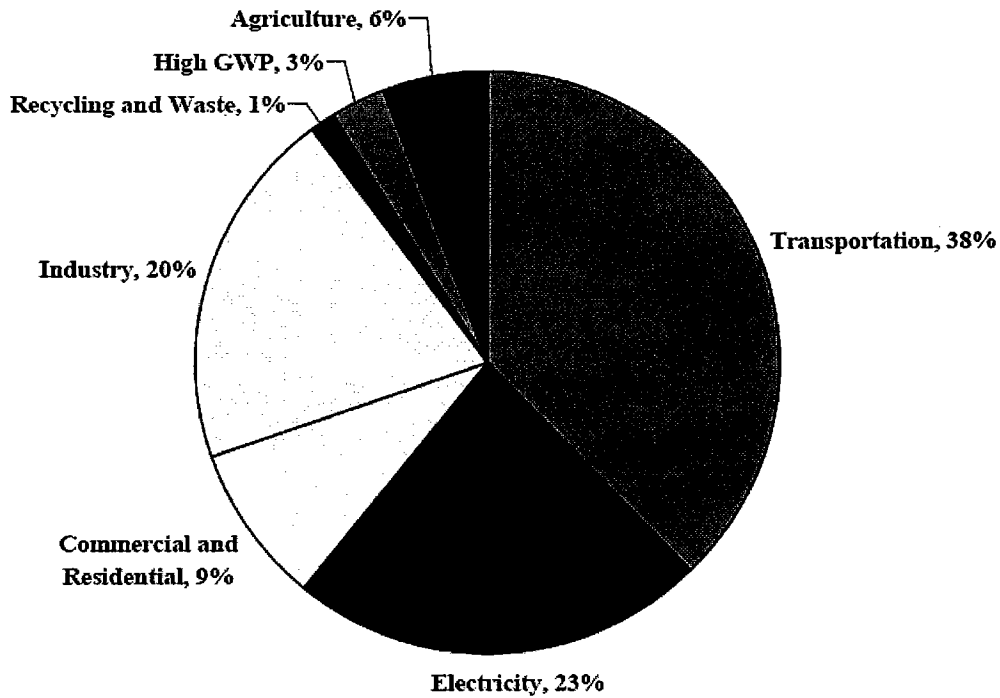
In the last few years information and data have been compiled that demonstrate increases in average global air and ocean temperatures are occurring (AEP 2007). According to the IPCC Report, global temperatures are expected to rise approximately 0.2 degree Celsius per decade for the next couple of decades under a variety of scenarios (IPCC 2007). Further, global temperatures are expected to continue to increase for centuries as a result of human activities due to the time scales associated with climate processes and feedbacks, even if GHG concentrations are stabilized. As a result, based on the current understanding of climate-carbon feedback, model studies show that substantial GHG emission reductions are necessary to avoid substantial increases in global air and ocean temperatures.

As a result of human activities, such as electricity production, vehicle use, etc., GHGs have been accumulating in the earth's atmosphere at a faster rate than has occurred historically, i.e., prior to the Industrial Age starting approximately 150 years ago (AEP 2007).



Figure 1 shows that transportation is the largest source of GHG in California, contributing 38 percent of the State's total GHG emissions for the 2002-2004 time period. Average GHG emissions, expressed in million metric tons Carbon Dioxide Equivalent (MMT_{CO2E}), are up from 35 percent in 1990. Electricity generation and importation is the second largest source, contributing over 25 percent of the State's GHG emissions (CARB 2008). Additional information is available from the Air Resources Board (www.arb.ca.gov).

Figure 1: California's Greenhouse Gas Emissions by Sector (Gross Emissions: 469 MMT CO_{2E})



Source: CARB, 2008

3.3. Greenhouse Gases

Some greenhouse gases such as water vapor occur naturally and are emitted to the atmosphere through natural processes as well as through human activities. The most common GHG that results from human activity is carbon dioxide, followed by methane and nitrous oxide. GHGs can include:

Water Vapor: Although not considered a pollutant, water vapor is the most important, abundant, and variable GHG. In the atmosphere, it maintains a climate necessary for life. The main source of water vapor is evaporation from the ocean (approximately 85 percent). Other sources include sublimation (change from



solid to gas) from ice and snow, evaporation from other water bodies, and transpiration from plant leaves.

Ozone: Unlike other GHG, ozone is relatively short-lived and, therefore, is not global in nature. It is difficult to make an accurate determination of the contribution of ozone precursors (nitrogen oxides and volatile organic compounds) to global climate change (AEP 2007).

Aerosols: Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Cloud formation can also be affected by aerosols. Sulfate aerosols are emitted when fuel-containing sulfur is burned. Black carbon (or soot) is emitted during biomass burning or incomplete combustion of fossil fuels. Particulate matter regulation has been lowering aerosol concentrations in the United States; however, global concentrations are likely increasing.

Chlorofluorocarbons: Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in CH₄ or ethane with chlorine and/or fluorine atoms. CFCs are nonflammable, nontoxic, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were first synthesized in 1928 for use as cleaning solvents, refrigerants, and aerosol propellants. They destroy stratospheric ozone; therefore, their production was stopped as required by the Montreal Protocol in 1987 (AEP 2007).

Carbon dioxide: Carbon dioxide (CO₂) is an odorless, colorless gas, which has both natural and anthropogenic sources. Natural sources include the following: respiration of bacteria, plants, animals, and fungus, evaporation from oceans, volcanic outgassing, and decomposition of dead organic matter. Anthropogenic sources of carbon dioxide are from burning coal, oil, natural gas, and wood. Concentrations of CO₂ were 379 parts per million (ppm) in 2005, which is an increase of 1.4 ppm per year since 1960 (AEP 2007).

Methane: Methane (CH₄) is a flammable gas and is the main component of natural gas. When one molecule of CH₄ is burned in the presence of oxygen, one molecule of carbon dioxide and two molecules of water are released. There are no direct ill health effects from CH₄. A natural source of CH₄ is from the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain CH₄, which is extracted for fuel. Other sources are from cattle, fermentation of manure, and landfills.

Nitrous oxide: Nitrous oxide (N₂O), also known as laughing gas, is a colorless greenhouse gas. Higher concentrations of N₂O can cause euphoria, dizziness, and slight hallucinations. N₂O is produced by microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (nitric acid production, nylon production, fossil fuel-fired power plants, and vehicle emissions) also contribute to its atmospheric load. It is used in racecars, rocket engines, and as an aerosol spray propellant.

Fluorinated Gases: Gases that are synthetic, powerful GHG that are emitted from a variety of industrial processes.



Hydrofluorocarbons: Hydrofluorocarbons (HFCs) are synthetic man-made chemicals that are used as a substitute for CFCs for automobile air conditioners and refrigerants.

Perfluorocarbons: Perfluorocarbons (PFCs) have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays, roughly 60 kilometers above the earth's surface are able to destroy the compounds. PFCs have long lifetimes, ranging between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane and hexafluoroethane. Concentrations of tetrafluoromethane in the atmosphere are over 70 parts per trillion (ppt) (AEP 2007). The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

Sulfur hexafluoride: Sulfur hexafluoride (SF₆) is an inorganic, colorless, odorless, nontoxic, nonflammable gas. Concentrations in the 1990s were roughly 4 ppt (AEP 2007). SF₆ is used for insulation in electric power transmission and distribution equipment, in semiconductor manufacturing, the magnesium industry, and as a tracer gas for leak detection.

Under Assembly Bill 32 (AB 32) GHGs are defined as carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs).

The global warming potential (GWP) of the various GHGs is assigned as a measure of their relative average global radiative forcing effect, the potential of a gas or aerosol to trap heat in the atmosphere. Individual GHG species have varying GWP and atmospheric lifetimes. The carbon dioxide equivalent is a consistent methodology for comparing GHG emissions since it normalizes various GHG emissions to a single metric. The reference gas for GWP is carbon dioxide with a GWP of one and GWP weighted emissions are measured in terms of CO₂ equivalents (CO₂E) (EPA 2008). For example, methane has a GWP of 21; methane has a 21 times greater global warming effect than carbon dioxide on a weight basis (EPA 2008). Several GWPs of other GHGs are shown in Table 1 below:



Table 1: Global Warming Potential of GHGs

Gas	Atmospheric Lifetime	GWP
Carbon dioxide (CO ₂)	50 – 200	1
Methane (CH ₄)	12 ± 3	21
Nitrous oxide (N ₂ O)	120	310
HFC-23 (Hydrofluorocarbons)	264	11,700
HFC-32	5.6	650
HFC-125	32.6	2,800
HFC-134a	14.6	1,300
HFC-143a	48.3	3,800
HFC-152a	1.5	140
HFC-227ea	36.5	2,900
HFC-236fa	209	6,300
HFC-4310mee	17.1	1,300
CF ₄ (Perfluorocarbons)	50,000	6,500
C ₂ F ₆	10,000	9,200
C ₄ F ₁₀	2,600	7,000
C ₆ F ₁₄	3,200	7,400
Sulfer hexafluoride (SF ₆)	3,200	23,900

Source: U.S. EPA (<http://www.epa.gov/>)



3.4. Legislation Relative to Addressing GHG Impacts

3.4.1. Executive Order S-3-05

In response to the increasing body of evidence that GHGs will continue to affect global climate, Governor Schwarzenegger issued executive order (EO S-3-05) in June 2005, which established several greenhouse gas emission reduction targets for California. GHG emissions are to be reduced to 2000 emission levels by 2010; to 1990 emission levels by 2020 (a 29% reduction from Business-as-Usual emissions levels projected for 2020) (CARB 2008); and to 80% below 1990 levels by 2050.

3.4.2. Assembly Bill 32 (AB 32) - The California Global Warming Solutions Act of 2006

On September 27, 2006, Governor Schwarzenegger signed Assembly Bill AB 32. By requiring in law a reduction of GHG emissions to 1990 levels by 2020, California set the stage for its transition to a sustainable, clean energy future. CARB is the lead agency for implementing AB 32, which set major milestones for establishing the overall program. More specifically, AB 32 includes the following requirements for the California Air Resources Board (CARB):

- Identify the statewide level of GHG emissions in 1990 to serve as the emissions limit to be achieved by 2020 (HSC section 38550). In December 2007, the Board approved the 2020 emission limit of 427 million metric tons of carbon dioxide equivalent (MMTCO₂E) of GHGs.
- Adopt a regulation requiring the mandatory reporting of GHG emissions (HSC section 38530). In December 2007, the Board adopted a regulation requiring the largest industrial sources to report and verify their GHG emissions.
- Identify and adopt regulations for Discrete Early Actions that could be enforceable on or before January 1, 2010, (HSC section 38560.5). Beginning in 2007, the Board identified and approved nine Discrete Early Action measures including regulations affecting landfills, motor vehicle fuels, refrigerants in cars, port operations and other sources.
- Develop a "Scoping Plan" that outlines the State's strategy to achieve the 2020 GHG emissions limit. A Scoping Plan sets forth those strategies that, at the time of the adoption of the Plan, CARB believes would be best to pursue. Adoption of a Scoping Plan does not, however, mean that CARB is giving final approval to every strategy contained in that Plan. A substantial number of the strategies contained in an approved Scoping Plan will require their own regulatory processes, at the end of which CARB may choose a course that is different from that set forth in a Scoping Plan. Furthermore, adoption of a Scoping Plan is not a condition precedent for the adoption of greenhouse gas reduction measures CARB may pursue under other provisions of AB 32.



- Convene an Environmental Justice Advisory Committee (EJAC) to advise the Board in developing the Scoping Plan and any other pertinent matter in implementing AB 32 (HSC section 38591). The EJAC met numerous times, providing comments on the proposed development of the Scoping Plan, and submitted its comments and recommendations on the 2008 draft Scoping Plan.
- Appoint an Economic and Technology Advancement Advisory Committee (ETAAC) to provide recommendations for technologies, research and GHG emission reduction measures (HSC section 38591). After a year-long public process, the ETAAC submitted a report of their recommendations to the Board in February 2008. The ETAAC also reviewed and provided comments on the 2008 draft Scoping Plan.
- On or before January 1, 2011, adopt greenhouse emission limits and emission reduction measures by regulation to achieve the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions in furtherance of achieving the statewide greenhouse emissions limit, to become operative beginning on January 1, 2012 (HSC section 38562).

3.4.3. Senate Bill 97 (SB 97) – CEQA: Greenhouse Gas Emissions

In August 2007, Governor Schwarzenegger signed into law Senate Bill (SB) 97 – CEQA: Greenhouse Gas Emissions. SB 97 requires the Office of Planning and Research, by July 1, 2009, to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions, as required by CEQA, including, but not limited to, effects associated with transportation or energy consumption. The Resources Agency would be required to certify and adopt those guidelines by January 1, 2010. The Office of Planning and Research would be required to periodically update the guidelines to incorporate new information or criteria established by CARB pursuant to the California Global Warming Solutions Act of 2006. SB 97 also identifies a limited number of types of projects that would be exempt under CEQA from analyzing GHG emissions. Finally, the legislation will be repealed on January 1, 2010. For further information, see <http://opr.ca.gov/index.php?a=ceqa/index.html>

In April 2009, the Governor's Office of Planning and Research (OPR) proposed several amendments to the CEQA Guidelines to address analysis and mitigation of potential effects of greenhouse gas emissions. Among the proposed amendments are provisions recognizing lead agency discretion to adopt quantitative or qualitative thresholds of significance. 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. Specific amendments are presented below:



- A new subdivision emphasizes that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of CEQA requirements for cumulative impacts analysis;
- A new subdivision was added to assist lead agencies in determining the significance of project related greenhouse gas emissions (CCR §15064.4.). In addition to quantification of GHG emissions, this section provides for the consideration of several other qualitative factors that may be used in the determination of significance. Per the amendments, a lead agency has discretion to determine whether to:
 - Use a model or methodology to quantify greenhouse gas emissions resulting from a project, or
 - To rely on a qualitative analysis, or
 - To apply performance based standards

3.4.4. SB 375 (Steinberg) Transportation, Land Use, and the California Environmental Quality Act (CEQA)

On September 30, 2008, Governor Schwarzenegger signed into law SB 375 (Steinberg). SB 375 focuses on housing and transportation planning decisions to reduce fossil fuel consumption and conserve farmlands and habitat. This legislation is important to achieving AB 32 goals because greenhouse gas emissions associated with land use, which includes transportation, are the single largest sector of emissions in California. Further, SB 375 provides a path for better planning by providing incentives to locate housing developments closer to where people work and go to school, allowing them to reduce vehicle miles traveled every year. Finally, SB 375 provides certain exemptions under CEQA law for projects that are proposed consistent with local plans developed under SB 375. The bill is available here: http://www.leginfo.ca.gov/pub/07-08/bill/sen/sb_0351-0400/sb_375_bill_20080930_chaptered.html

3.5. AB 32 Scoping Plan

3.5.1. Introduction

A “scoping plan” is required by one provision of AB 32 (Health and Safety Code (HSC) section 38561). The Scoping Plan outlines the State’s strategy to reduce its GHG emissions to 1990 levels by 2020. CARB is the State Agency responsible for preparation of the Scoping Plan. In 2008, CARB, consistent with its legislative mandate prepared a Scoping plan for consideration by its Board, which was adopted on May 11, 2009. CARB’s adoption of GHG reduction measures is authorized under a separate provision (HSC section 38562). Thus, consideration of CARB’s objectives in adopting the AB 32 Scoping Plan is important when determining significance of project related GHG emissions on global climate change.



3.5.2. AB 32 Scoping Plan Objectives

CARB derived the following objectives from the requirements of AB 32 for the Scoping Plan (HSC section 38561) and for the adoption of emission reduction measures by regulation (HSC section 38562), including market-based regulations (HSC section 38570):

- Establish regulations to meet the 2020 goal – to establish regulations that implement reduction strategies covering the state’s GHG emissions in furtherance of California’s mandate to reduce GHG emissions to 1990 levels by 2020;
- Reduce fossil fuel use – to reduce California’s reliance on fossil fuels and diversify energy sources while maintaining electric system reliability;
- Link with partners – to link, where feasible, with other Western Climate Initiative (WCI) partner programs to create a regional market system;
- Design an enforceable, amendable program – to design a program that is enforceable and that is capable of being monitored and verified;
- Ensure emission reductions – to pursue emissions reductions that are real, permanent, quantifiable, verifiable and enforceable;
- Achieve technologically feasible and cost-effective reductions – to achieve the maximum technologically feasible and cost-effective reductions in GHG emissions in the aggregate from sources or categories of sources under the cap, in furtherance of achieving the statewide GHG emissions limit (HSC section 38562, subd. (a) and (c));
- Avoid disproportionate impacts – to ensure, to the extent feasible, that activities undertaken to comply with the regulations do not disproportionately impact low-income communities (HSC section 38562, subd. (b)(2));
- Credit early action - to ensure, to the extent feasible, that entities that have voluntarily reduced their GHG emissions prior to the implementation of regulations receive appropriate credit for early voluntary actions (HSC section 38562, subd. (b)(3));
- Complement existing air standards – to ensure, to the extent feasible, that activities undertaken pursuant to the regulations complement, and do not interfere with, efforts to achieve and maintain national and California Air Quality Attainment Standards and to reduce toxic air contaminant (TAC) emissions (HSC, section 38562, subd. (b)(4));
- Consider a broad range of public benefits – to consider overall societal benefits, including reductions in other air pollutants, diversification of energy sources, and other benefits to the economy, environment, and public health (HSC section 38562, subd. (b)(6));
- Minimize administrative burden – to minimize, to the extent feasible, the administrative burden of implementing and complying with the regulation (HSC section 38562, subd. (b)(7));



- Minimize leakage – to minimize, to the extent feasible, leakage of emissions to states and countries without a mandatory GHG emission cap (HSC section 38562, subd. (b)(8));
- Weigh relative emissions – to consider, to the extent feasible, the contribution of each source or category of sources to statewide emissions of GHGs (HSC section 38562, subd. (b)(9));
- Achieve real emission reductions in market-based strategies – to ensure that GHG emission reductions achieved through any market-based compliance mechanisms are real, permanent, quantifiable, verifiable and enforceable by the Board (HSC section 38562, subd. (d)(1));
- Achieve reductions over existing regulation using market-based strategies – to ensure that the reductions from any market-based compliance mechanisms are in addition to any GHG emissions reductions otherwise required by law or regulation, and any other GHG emissions reduction that would otherwise occur (HSC section 38562, subd. (d)(2));
- Complement direct measures – to ensure, if applicable, that the GHG emissions reduction from a market-based compliance mechanism occurs over the same time period and is equivalent in amount to any direct emissions reduction required pursuant to AB 32 (HSC section 38562, subd. (d)(3));
- Consider emissions impacts – to consider, to the extent feasible, the potential for direct, indirect, and cumulative emissions impacts from a market-based compliance mechanism, including localized impacts in communities that are already adversely impacted by air pollution (HSC section 38570, subd. (b)(1));
- Prevent increases in other pollutant emissions – to design, to the extent feasible, any market-based compliance mechanism to prevent any increase in the emissions of criteria air pollutants or toxic air contaminants (TACs) (HSC section 38570, subd. (b)(2));
- Maximize co-benefits – to maximize, to the extent feasible, additional environmental and economic benefits for California, as appropriate (HSC section 38570, subd. (b)(3)); and
- Avoid duplication – to ensure that electricity and natural gas providers are not required to meet duplicative or inconsistent regulatory requirements HSC sections 38501(g) and 38561(a).

3.6. District Policy for Addressing GHG Impacts

On December 17, 2009, the District's Governing Board adopted the District policy: *Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency*. In support of this policy, District staff prepared a staff report: *Addressing Greenhouse Gas Emissions under the California Environmental Quality Act*. The report evaluates different approaches for assessing significance of GHG emission impacts. As presented in the report, District staff reviewed the relevant scientific information and concluded that the existing science is inadequate to support quantification of the extent to which project specific GHG emissions would impact global climatic features such as



average air temperature, average annual rainfall, or average annual snow pack. In other words, the District was not able to determine a specific quantitative level of GHG emissions increase, above which a project would have a significant impact on the environment, and below which would have an insignificant impact. This is readily understood when one considers that global climatic change is the result of the sum total of GHG emissions, both manmade and natural that occurred in the past; that is occurring now; and will occur in the future.

In the absence of scientific evidence supporting establishment of a numerical threshold, the District Policy applies performance based standards to assess project specific GHG emission impacts on global climate change. The determination of significance is founded on the principal that projects whose GHG emissions have been reduced or mitigated consistent with the California Global Warming Solutions Act of 2006, commonly referred to as "AB 32", should be considered to have a less than cumulatively significant impact on global climate change.

The policy relies on the use of performance based standards, otherwise known as Best Performance Standards (BPS), to assess significance of project specific greenhouse gas emissions on global climate change during the environmental review process, as required by CEQA. Projects implementing BPS would be determined to have a less than cumulatively significant impact. Otherwise, demonstration of a 29 percent reduction in GHG emissions, when compared to the projected 2020 business-as-usual emissions level, is required to determine that a project would have a less than cumulatively significant impact.

For a detailed discussion of the District's establishment of thresholds of significance for GHG emissions, and the District's application of said thresholds, the reader is referred to the District document: *Final Staff Report Addressing Greenhouse Gas Emissions Impacts Under the California Environmental Quality Act*, December 17, 2009, and the District policy: *Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency*, incorporated herein by reference.



Chapter 4 – Environmental Impacts

4.1. Introduction

At the time of the adoption of a rule or regulation requiring the installation of pollution control equipment, establishing a performance standard, or establishing a treatment requirement, all air pollution control districts and air quality management districts, must perform an environmental analysis of the reasonably foreseeable methods by which compliance with that rule or regulation will be achieved (CCR §15187(a)). The environmental analysis shall take into account a reasonable range of environmental, economic, and technical factors, population and geographic areas, and specific sites. The agency may utilize numerical ranges and averages where specific data is not available, but is not required to, nor should it, engage in speculation or conjecture. However, the Lead Agency is not required to conduct a project level analysis (CCR §15187 et seq.). An impact is considered significant under CEQA (PRC §21068) when a substantial, or potentially substantial, adverse change in the environment occurs.

Rule 2301 is a voluntary banking rule that provides a regulatory mechanism for sources to store emission reduction credits (ERCs) for later use as offsets where allowed by District, state, and federal rules and regulations. The rule also provides a regulatory mechanism for sources to transfer ERCs to other sources for use as offsets as allowed by Rule 2201 (New and Modified Stationary Source Review Rule), or state and federal rules and regulations. The rule defines eligibility standards, quantitative procedures and administrative practices to ensure that ERCs are real, permanent, quantifiable, surplus, and enforceable. As such, the rule neither mandates specific methods of generating emission reduction credits, nor mandates specific uses of banked emission reduction credits. Accordingly, the most the District can analyze for purposes of CCR §15187(a) is the impacts, if any, of implementing rule provisions that establishes form, structure, and rigor to the existing ad hoc process of identifying potential GHG emission reduction credits and their use as mitigation under CEQA.

4.2. Reasonably Foreseeable Direct Environmental Impacts

As presented above, draft amendments to District Rule 2301 (Emission Reduction Credit Banking) neither impose conditions requiring installation of pollution control equipment, nor require facilities to bank GHG emission reductions, nor do they require such banked reductions be used in any way. Thus, the District finds that implementation of the project would not impose conditions directly resulting in a physical change in the environment.



4.3. Reasonably Foreseeable Indirect Environmental Impacts

Implementation of the proposed rule amendments could foreseeably result in projects undertaken for the purpose of generating GHG emission reduction credits and the use of banked GHG emission reduction credits as mitigation of project specific impacts under CEQA. However, given the wide variety of potential emission reduction projects that could be voluntarily undertaken and the diversity of potential voluntary uses of banked GHG emission reduction credits, characterization of potential indirect environmental impacts is too speculative for analysis. At the project level, the District presumes that the environmental review process, as required by CEQA, is sufficient to ensure that project specific environmental impacts will be fully disclosed to the public and mitigated to the extent required. From a global climate change perspective, implementation of GHG emission reduction projects would be consistent with California's efforts to reduce state wide GHG emissions to 1990 levels by 2020 and intrinsically would have a positive impact on global climate change.

It is reasonably foreseeable that banked GHG emission reductions would be retired for the purpose of mitigating project specific impacts as part of the California Environmental Quality Act (CEQA) environmental review process. As presented in this EIR, the proposed project would be implemented consistent with the regulatory framework currently allowed for criteria pollutant emissions under District 2201 (New and Modified Stationary Source Review Rule). The District has extensive experience in implementing an emissions reduction credit banking system, including establishing eligibility standards, quantitative procedures and administrative practices. As such, implementing the proposed amendments to District Rule 2301 would establish form, structure, and rigor to the existing ad hoc process of securing GHG emission reduction credits and ensuring their permanence and enforceability. Furthermore, use of locally generated GHG emission reduction credits as mitigation, versus carbon credits potentially generated outside the state of California, supports the state's efforts to reduce state wide GHG emissions to 1990 levels by 2020 and adds veracity to mitigating project specific impacts on global climate change. Thus, the District finds that there is no substantial evidence, in light of the whole record before the District, that implementing the proposed rule development project would indirectly have an adverse environmental impact.

4.4. Significant Environmental Impacts

The District finds that there is no substantial evidence, in light of the whole record before the District, that implementation of the project could have a significant effect on the environment. The reader is referred to the NOP/IS for a more thorough discussion and rationale supporting the determination that the project would have a less than significant environmental impact. The NOP/IS can be found in Appendix A.



4.5. Cumulative Impacts on Global Climate Change

CEQA Guidelines §15130(a) requires an EIR to discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects "(CCR §15065(a)(3)).

The challenge in assessing the significance of GHG emissions is complicated by the fact that project specific GHG emissions occur at a micro-scale relative to global emissions. Thus, project specific impacts need to be evaluated in terms of whether or not the project could result in a cumulatively considerable incremental contribution to global climatic change, which is macro-scale impact. Furthermore, the mere existence of significant cumulative impacts caused by other projects does not constitute substantial evidence that a proposed project's incremental effects are cumulatively significant (CCR §15064(h)(4)). It is in this environment of scientific uncertainty that CEQA lead agencies are expected to determine whether a project's GHG emissions will have a significant impact on the environment.

On February 16, 2010, the California Office of Administrative Law approved amendments to the California Code of Regulations, emphasizing that the effects of GHG are cumulative impacts and should be analyzed in the cumulative impacts analysis. To assist lead agencies in determining the significance of project related greenhouse gas emissions a new subdivision was added to the CEQA Guidelines; Section 15064.4 (Determining The Significance of Impacts From Greenhouse Gas). This section provides that when assessing cumulative significance of project specific GHG emissions on global climate change, a lead agency should consider, among other factors, the extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting. In addition to quantification of GHG emissions, this section provides for the consideration of several other qualitative factors that may be used in the determination of significance. Per the amendments, a lead agency has discretion to determine whether to:

- Use a model or methodology to quantify greenhouse gas emissions resulting from a project, or
- To rely on a qualitative analysis, or
- To apply performance based standards

This rulemaking project would adopt amendments to District Rule 2301 (Emission Reduction Credit Banking) to allow voluntary banking of greenhouse gas (GHG) emission reductions and the use of banked GHG emission reductions as mitigation under CEQA. The draft amendments would provide a regulatory mechanism for sources to voluntarily preserve GHG emission reductions; provide



a regulatory mechanism for use of said GHG emission reductions to offset or mitigate GHG emission increases, as currently allowed for criteria pollutant emissions under District 2201 (New and Modified Stationary Source Review Rule); and would establish eligibility standards, quantitative procedures and administrative practices. The draft amendments neither impose conditions requiring installation of pollution control equipment, nor require facilities to bank GHG emission reductions, nor do they require such reductions to be used in any way. Quantification of potential changes in GHG emissions, either increases or decreases, that may result due to implementation of the project requires a degree of speculation and conjecture that is inappropriate and discouraged under CEQA (CCR §15187(d)).

From a qualitative perspective, providing a mechanism to preserve voluntary high quality greenhouse gas (GHG) emission reductions and the use of banked GHG emission reductions to off-set project specific GHG emissions is clearly consistent with the following AB 32 Scoping Plan objectives:

- Credit early action - to ensure, to the extent feasible, that entities that have voluntarily reduced their GHG emissions prior to the implementation of regulations receive appropriate credit for early voluntary actions (HSC section 38562, subd. (b)(3));
- Complement existing air standards – to ensure, to the extent feasible, that activities undertaken pursuant to the regulations complement, and do not interfere with, efforts to achieve and maintain national and California Air Quality Attainment Standards and to reduce toxic air contaminant (TAC) emissions (HSC, section 38562, subd. (b)(4));
- Minimize leakage – to minimize, to the extent feasible, leakage of emissions to states and countries without a mandatory GHG emission cap (HSC section 38562, subd. (b)(8));
- Achieve real emission reductions in market-based strategies – to ensure that GHG emission reductions achieved through any market-based compliance mechanisms are real, permanent, quantifiable, verifiable and enforceable by the Board (HSC section 38562, subd. (d)(1));
- Achieve reductions over existing regulation using market-based strategies – to ensure that the reductions from any market-based compliance mechanisms are in addition to any GHG emissions reductions otherwise required by law or regulation, and any other GHG emissions reduction that would otherwise occur (HSC section 38562, subd. (d)(2));
- Complement direct measures – to ensure, if applicable, that the GHG emissions reduction from a market-based compliance mechanism occurs over the same time period and is equivalent in amount to any direct emissions reduction required pursuant to AB 32 (HSC section 38562, subd. (d)(3));

The District has adopted the Policy: *Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency*. The foundation for determining significance under the policy is that projects reducing



GHG emissions consistent with AB 32 objectives should be determined to have a less than cumulatively significant impact on global climate change. As identified above, District implementation of the project would achieve many key AB 32 objectives. The District finds that there is no substantial evidence, in light of the whole record before the District, that the project could have a cumulatively significant impact on global climate change.



Chapter 5 – Project Alternatives

5.1. Introduction

This chapter identifies and compares the relative merits of a range of reasonable alternatives to the proposed project as required by the CEQA Guidelines section 15126.6. Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (PR Code §21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly (CCR §15126.6(b)).

As previously presented the District finds that there is no substantial evidence, in light of the whole record before the District, that the project could have a cumulatively significant impact on global climate change. Thus, project alternatives are evaluated for their ability to achieve the following District objectives:

- Allow facilities within the San Joaquin Valley to bank GHG emission reductions that can be retired to provide mitigation for CEQA;
- Provide a mechanism for the trading of banked GHG emission reductions;
- Promote the early reductions of GHGs and their associated criteria and toxic pollutants in the District;
- Provide a measure of certainty for banked GHG emission reductions lacking in some other GHG registries due to the District's extensive experience in banking criteria pollutant emissions;
- Provide a mechanism for persons to purchase and retire banked GHG emission reductions for societal benefit; and
- Bank protocol-based GHG emission reductions for use as compliance offsets in the California Air Resource Board (CARB) cap-and-trade program, provided the CARB cap-and-trade regulation includes such provisions.

5.2. Description of Project Alternatives

5.2.1. Alternative 1 – No Project Alternative

CEQA Guidelines § 15126.6 (e) requires evaluation of a "No Project Alternative." Section 15126.6(c) also states that among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (1) failure to meet most of the basic project objectives; (2) infeasibility; or (3) inability to avoid significant environmental impacts. The District rejects the "No project" alternative because it fails to meet the most basic project objectives, as identified above.

5.2.2. Alternative 2 – Adopt a Separate GHG Banking Rule



Development and implementation of a separate GHG banking program would be a duplication of the existing District Emission Reduction Credit banking program. The District rejects alternative two because it unnecessarily increases the cost of implementation, without providing any public benefits.

5.2.3. Alternatives Rejected as Infeasible

Based on the analysis in this EIR, no feasible alternatives were identified that would achieve the objectives of the proposed project.



Chapter 6 – Other CEQA Topics

6.1. Areas of Controversy

6.1.1. Introduction

In accordance with CCR §15123(b)(2), the areas of controversy known to the lead agency, including issues raised by agencies and the public, shall be identified in the CEQA document. GHG emissions and their impact on global climate change is a known subject of scientific and political debate. For a detailed discussion of the scientific and political issues, the reader is referred to the District document: *Final Staff Report Addressing Greenhouse Gas Emissions Impacts Under the California Environmental Quality Act*, December 17, 2009, incorporated herein by reference.

To investigate the various issues concerning the development of a mechanism to bank GHG emission reductions, the District formed a diverse technical workgroup consisting of District staff, land use agency representatives, industry representatives, agricultural representatives, environmental group representatives, and other interested parties. The District asked these stakeholders to participate in this process to gather ideas and issues from as many and as varied perspectives as possible, and to allow the District to develop a program that had benefits for Valley residents and businesses. This workgroup met several times in public meetings during late 2008 and early 2009, and engaged in a robust and frank discussion of pros and cons of establishing a carbon exchange. A detailed discussion of the various perspectives and conclusions are documented in the *Report to the APCO Regarding the Development of the San Joaquin Valley Carbon Exchange*, dated March 16, 2009, incorporated herein by reference. Specific areas of controversy identified during the public participation are:

- Use of banked GHG emissions which are not “additional” to any other regulatory requirement.
- Establishment of the baseline period.
- Permanence of banked GHG reductions
- Potential displacement of emissions to other locations - “Leakage”

6.1.2. Specific Comments and Responses

Although no comments were received on the NOP/IS, during the initial rule development process, conducted in 2009, comments were received from the following special interest groups: Earthjustice, the Center for Biological Diversity and the Center on Race, Poverty and the Environment. These comments were



considered by the District when developing the proposed rule amendments. Comments and District responses are presented below.

Comment 1: Rule 2301 allows sources to bank ERCs that are not “additional” to any other requirement required by law or any greenhouse gas reduction that would otherwise occur. This lack of “additionality” conflicts with proposed CEQA Guidelines; conflicts with AB 32 (health and safety Code 38562(d)(3)); conflicts with a GAO Report; conflicts with the Voluntary Carbon Standard Program; and conflicts with the Kyoto Protocol.

District Response: There are two methods of banking allowed by proposed Rule 2301. The first relies on the criteria authorized by state-approved banking protocols. These reductions would be required to be “additional” according to the state definitions, and all of the required criteria, including additionality, would be built into the protocol itself – if projects meet the protocol, they are additional and can be banked. It is important for these credits to be additional, because they are intended to be used in programs that require additional reductions, notably the State’s future cap and trade program and potentially in the context of other state and federal regulations.

The second method of GHG reduction banking is designed specifically for use as CEQA mitigation, in the context of our GHG CEQA significance threshold proposal. There is no requirement that such CEQA mitigation be “additional”, although the District does specifically forbid the banking of any reductions that would be required by GHG reduction regulations or requirements as such reductions would not be considered surplus. The Commenter appears concerned about the District allowing GHG reductions to be banked if they are “incidental” to non-GHG reduction requirements. However, the District would not allow the banking of any reductions that are required by AB 32, whether or not the requirement is specifically for GHG emissions reductions.

The Commenter seems confused as to the basis of the District’s proposed CEQA significance threshold, but understanding this is critical to understanding the questioned portions of the District’s amendments to Rule 2301. The basis of the District’s significance threshold is the AB 32 scoping plan. As the District discusses in its staff report, there is no science upon which to base a numeric project-by-project significance threshold, and therefore the District turned to the state’s own ambitious GHG reduction goals, as specified in the AB 32 scoping plan, to establish the significance level of GHG emissions. As the District also discusses in the CCAP staff report, the AB 32 reduction target is a 29% reduction from a hypothetical Business as Usual (BAU) level of emissions that is based on the 2002-2004 California baseline emissions which is then grown to 2020 levels, considering growth in emissions and not considering controls on existing or new emissions.



Because AB 32 sets a GHG reduction goal that includes growth in emissions, it is an ideal target to use to establish a CEQA significance threshold, and the District has done so. The second method of banking GHG reductions is therefore designed around the use of the resulting reductions as mitigation towards meeting this AB 32-based CEQA significance threshold. Therefore, provided the reductions are surplus of (or additional to - it means the same thing in this context) the requirements of AB32, they are valid for CEQA mitigation under our significance proposal.

Contrary to the Commenter's contention, the use of the term "surplus" rather than the term "additional" is not in conflict with the CEQA Guidelines. First of all the guidelines are merely clarifying that additional reductions may be used as mitigation. Second, as discussed above, in the context of our CEQA significance threshold all allowed reductions are surplus of all AB 32 requirements (direct or indirect requirements) and therefore are additional to all reduction requirements relevant to our GHG CEQA significance threshold. There is no difference in the application of the terms. This concept is exactly analogous to the banking system established for criteria pollutants. A plan is established to meet the criteria pollutant standard and the only reductions that are allowed to be banked are those that are surplus of the plan's requirements, and these reductions are then available for use as CEQA mitigation.

Similarly, the District's "surplus" requirement does not conflict with the referenced section of AB 32, which specifically addresses GHG reductions required as a result of implementing AB 32. First, it should be noted that the cited section of AB32 applies only to regulations adopted by CARB. Regardless, reductions that are not surplus of AB 32 requirements are not bankable under the District's program, so the District sees no conflict between its rule and this section.

In addition, the District's use of the term "surplus" does not conflict with the Government Accountability Office ("GAO") Report that the Commenter cites. First, it should be noted that the GAO Report does not constitute "evidence" that the District's approach may have a significant effect on the environment. It is simply a "report to congressional requestors" that outlines the scope of the current U.S. carbon offset market. It expressly states that the GAO is not recommending any action. It simply states that there exists a broad array of offset programs and that Congress may want to consider adopting standardized quality assurance mechanisms. The report is neither intended as guidance nor as a binding position taken by Congress or any other branch of the federal government.

With regard to "additionality", it appears that the Commenter has taken statements in the GAO Report out of context. While the report does acknowledge that stake holders and studies claim that additionality is fundamental to the credibility of offsets, it also states that other stakeholders claim that "additionality is not a critical factor at this early stage in the development of carbon markets



and that the key goal should be to keep transaction costs and barriers to entry low to create financial incentives for reducing emissions.” GAO Report at pp. 25-26. The Report further points out that “several stakeholders said that there is no correct technique for determining additionality;” that “[d]etermining additionality is inherently uncertain because, it may not be possible to know what would have happened in the future had the projects not been undertaken;” and that “applying a single test [to determine whether projects are additional] is too simplistic.” See *id.* p. 26.

Thus, it appears that if the GAO Report stands for any proposition, it is that there is no consensus on the question of “additionality” and whether it is a critical component to an offset program. The Report does not constitute evidence that District Rule 2301 as currently proposed may have a significant impact on the environment.

Further, the Commenter’s citation to the Voluntary Carbon Standard (“VCS”) program does not indicate that the District’s definition of “surplus” may result in adverse environmental effects. First, the Commenter has provided no evidence that the VCS program is the “leading standard” governing the trading of carbon credits on the private market as the Commenter claims. In addition, although the VCS program appears to be one possible approach to an offset program, its existence does not indicate that the District’s approach will have a significant impact on the environment. Indeed, the VCS program appears to take the “additionality” concept to one extreme; an extreme that conflicts with many of the concerns raised in the GAO Report also cited by the Commenter. The VCS does not address other approaches to offset programs, such as the District’s approach, nor does it state that other possible approaches may have adverse environmental effects. It does not address CEQA at all. In short, the VCS program provides no evidence that the proposed Rule 2301 will have any adverse effect on the environment.

Finally, the Commenter’s citation to the Kyoto Protocol as evidence that the District’s definition of “surplus” will result in adverse environmental effects is without merit. Like the other sources cited by the Commenter, the Kyoto Protocol does not address CEQA or the implications of using offset programs for purposes of CEQA. In addition, the United States has not even ratified the Kyoto Protocol.

In short, the District disagrees that any evidence demonstrates that proposed Rule 2301 will have an adverse effect on the environment. Further, it appears that the Commenter’s concerns relate not to the banking of ERCs, which the proposed Rule 2301 authorizes, but with the use of ERCs as mitigation for individual CEQA projects. The Commenter will have an opportunity to raise concerns regarding the use of any banked ERCs in a particular instance during the comment period for individual CEQA projects, and to attempt to do so now would involve significant and uniformed speculation.



Comment 2: Rule 2301 would allow emitters to choose any consecutive 24 month period during the previous 60 months as their baseline emissions whether or not that 24 month period is representative of actual or foreseeable greenhouse gas emissions.

District Response: The Commenter seems concerned that this baseline period for banking GHG reduction was different than that specified for criteria (affected) pollutants elsewhere in the same rule, but the criteria pollutant baseline period calculation is established by federal new source review permitting program requirements, and is not applicable to GHG reductions.

The Commenter also appears concerned that this different baseline period would allow “gaming” such that emissions reduction would be somehow illegally maximized. However, the District’s proposal won’t allow any illegal reductions to be banked. The entire baseline period considered by our rule must be after the baseline period of the AB 32 scoping plan (2002-2004) and therefore any reductions that meet the five banking criteria of Rule 2301 (real, surplus, permanent, quantifiable, enforceable) would be appropriate to be banked. In other words, all reductions allowed to be banked by our rule are completely consistent with the AB 32-based nature of our GHG CEQA significance threshold.

Comment 3: Rule 2301 does not ensure permanence of reductions because it does not prevent ERCs resulting from a short-term project from being used for a long term project and because the reductions are not ensured by District permits.

District Response: The District disagrees that Rule 2301 does not assure the permanence of reductions. On the contrary, all reductions banked for CEQA purposes are required to be permanent for the life of the credit – that is one of the five basic criteria that must be met before a credit can be issued. If we are to issue a short-term credit, its useful life will be clearly identified on the credit, and it would not be valid for use as full mitigation of a longer-term project. Similarly, we disagree that the permanence of credits that we issue is somehow threatened by the use of contracts to enforce the credits. In the rare case where we are forbidden by state law to use a permit to enforce a reduction, we can allow the use of a contract. However, if the contract cannot be constructed to assure the enforceability (and the permanence, etc.) of the reduction, the credit cannot be issued under the language of our rule.

Comment 4: Rule 2301 does not prevent leakage (displacement of emissions to other locations).

District Response: GHG reductions must be permanent before they can be banked, as discussed above. If the emissions sources are being removed from



the San Joaquin Valley, but are known to being moved to another location outside the District where they will continue to emit, they are not permanent, and credit cannot be issued under the rule.

6.2. Growth-inducing Impacts of the Proposed Project

CEQA defines growth-inducing impacts as those impacts of a proposed project that “could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects, which would remove obstacles to population growth” (CCR §15126.2(d)).

The proposed project would be implemented consistent with the regulatory framework currently allowed for criteria pollutant emissions under District 2301 (Emission Reduction Credit Banking). The District has extensive experience in implementing an emissions reduction credit banking system for criteria pollutants, including establishing eligibility standards, quantitative procedures and administrative practices. As such, implementing the proposed amendments to District Rule 2301 would establish form, structure, and rigor to the existing ad hoc process of securing GHG emission reduction credits and ensuring their permanence and enforceability. The rule contains no mandates on regulated sources – it merely provides the mechanism to recognize voluntary efforts at reducing GHG emissions. Furthermore, use of locally generated GHG emission reduction credits as mitigation is not growth-inducing when compared to the current use of carbon credits generated under other credit-recognition programs, potentially outside the state of California. Finally encouraging local GHG emissions reductions supports the state’s efforts to reduce statewide GHG emissions to 1990 levels by 2020 has the benefit of generating co-benefit reductions in criteria and hazardous air pollutants, and adds veracity to mitigating project specific impacts on global climate change. Thus, the District finds that there is no substantial evidence, in light of the whole record before the District, that implementing the proposed rule development project would either directly or indirectly have a growth inducing impact.

6.3. Environmental Effects Found Not to be Significant

The environmental effects of the Project are identified and discussed in detail in the preceding chapters of this EIR and in the Initial Study. In summary, the District finds that there is no substantial evidence, in light of the whole record before the District, that the project could have a significant effect on the environmental or could have a cumulatively significant impact on global climate change.



Chapter 7 – References

List of Environmental Impact Report Preparers

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References Cited

Report to the APCO Regarding the Development of the San Joaquin Valley Carbon Exchange, March 16, 2009

Final Staff Report Addressing Greenhouse Gas Emissions Impacts Under the California Environmental Quality Act, December 17, 2009

District policy: *Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency*, December 17, 2009

Notice of Preparation (NOP) and Initial Study (IS) (SCH # 2010022066), February 24, 2010

Final Staff Report for Rule 2301 (Emission Reduction Credit Banking), September 7, 2011

Draft Rule 2301 (Emission Reduction Credit Banking), September 7, 2011

California Global Warming Solutions Act of 2006 (AB32)
(http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_0001-0050/ab_32_bill_20060927_chaptered.pdf)

AB32 Scoping Plan
(<http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>)



Attachment - A

List of Persons, Organizations, and Public Agencies Commenting on the Draft Environmental Impact Report or September 7, 2011 Draft Rule 2301 workshop

- Center for Biological Diversity
- Native American Heritage Commission
- Office of the California Attorney General
- Western States Petroleum Association



Attachment - B

Summary of Comments and Responses on Draft Environmental Impact Report or September 7, 2011 Draft Rule 2301 workshop

The San Joaquin Valley Air Pollution Control District (District) provided a notice of intent to adopt an Environmental Impact Report (EIR) for the proposed amendments to District Rule 2301 (Emission Reduction Credit Banking). The Draft EIR was available for public review and comment from August 12, 2011 to September 26, 2011.

All comments were duly considered and addressed in preparation of the Final Environmental Report. A summary of the comments received and the District's responses follow below.

US Environmental Agency Comments:

None received.

California Air Resources Board Comments:

None Received.

California Attorney General Comments

Comments from the Office of the California Attorney General (AG) pertain to the draft amendments to Rule 2301 and are addressed in the Final Rule 2301 Staff Report. District responses to the AG's comments are germane to the District's determination that approving the project would not have an adverse environmental impact. AG comments and District responses are included herein for informational purposes.

Comment 1

Relying on the phrase "not otherwise required" in CEQA Guidelines section 15126.4(c), the AG's office comments that the District should not create a banking program that allows the banking of GHG reductions that result from regulatory requirements aimed at issues other than reducing GHGs.



Response 1

This comment is inconsistent with the record established during the adoption of the relevant revisions to the CEQA Guidelines.

On July 3, 2009, the Natural Resources Agency noticed its proposal to amend CEQA regulations to implement SB97's requirement of including GHG's in CEQA reviews.

The Initial Statement of Reasons (ISOR) for this action contains, beginning on page 40, a section called the "Consideration and Discussion of Mitigation Measures Proposed to Minimize Significant Effects." It discussed five types of potential mitigations for GHG impacts, one of which is off-site measures, including offsets. The concept of additionality is not discussed in this section, nor is it discussed anywhere in the ISOR. The term "additionality" is not used in the ISOR, nor is the phrase "not otherwise required."

The relevant proposed regulatory language associated with this ISOR is as follows:

(c) Mitigation Measures Related to Greenhouse Gas Emissions.

Consistent with section 15126.4(a), lead agencies shall consider feasible means of mitigating greenhouse gas emissions that may include, but not be limited to:

- (1) Measures in an existing plan or mitigation program for the reduction of emissions that are required as part of the lead agency's decision;
- (2) Reductions in emissions resulting from a project through implementation of project features, project design, or other measures, such as those described in Appendix F;
- (3) Off-site measures, including offsets, to mitigate a project's emissions;
- (4) Measures that sequester greenhouse gases; and
- (5) In the case of the adoption of a plan, such as a general plan, long range development plan, or greenhouse gas reduction plan, mitigation may include the identification of specific measures that may be implemented on a project-by-project basis. Mitigation may also include the incorporation of specific measures or policies found in an adopted ordinance or regulation that reduces the cumulative effect of emissions.

The concept of "additionality" for purposes of CEQA did not appear until the Natural Resources Agency's August 27, 2009 response to comments submitted by the Center for Biological Diversity.



As in the ISOR, there is no discussion of limiting the use of offsets to certain kinds of offsets in the initially proposed regulatory language shown above. Again, there is no discussion of “additionality” or of “not otherwise required.” The concept of additionality was not raised until the Natural Resources Agency responded, on August 27, 2009, to comments from the Center for Biological Diversity, et al., on the proposed Section 15126.4(c). After discussing CEQA’s requirement that there be a “nexus” between a mitigation measure and a project’s impact, the Resources Agency writes in their response:

Notably, this interpretation of the CEQA statute and case law (for the requirement for a nexus between mitigation and impact) is consistent with the Legislature’s directive in AB 32 that reductions relied on as part of a market-based compliance mechanism must be “in addition to any greenhouse gas emission reduction otherwise required by law or regulation, and any other greenhouse gas emission reduction that otherwise would occur.” See Health and Safety Code § 38562(d)(2). While AB 32 and CEQA are separate statutes, the additionality concept may be applied analytically in the latter as follows: *greenhouse gas emission reductions that are otherwise required by law or regulation* would appropriately be considered part of the existing baseline. Pursuant to section 15064.4(b)(1), a new project’s emissions should be compared against that existing baseline (emphasis added).

Thus, in light of the above, and in response to concerns raised in this comment and others, the Natural Resources Agency has revised section 15126.4(c)(3) to state that mitigation may include: “Off-site measures, including offsets that are not otherwise required, to mitigate a project’s emissions[.]” This provision is intended to be read in conjunction with the statutory mandate in Public Resources Code sections 21002 and 21081 that mitigation be tied to the effects of a project.

This provision would not limit the ability of a lead agency to create, or rely on the creation of, a mechanism, such as an offset bank, created prospectively in anticipation of future projects that will later rely on offsets created by those emissions reductions.

The California Health and Safety Code section referenced in the above response, section 38562(d)(2), is actually prefaced as follows:

For regulations pursuant to Part 5 (commencing with Section 38570), the reduction is in addition to any greenhouse gas emission reduction otherwise required by law or regulation, and any other greenhouse gas emission reduction that otherwise would occur.

Part 5, “Market-Based Compliance Systems,” contains the legislature’s directives to the California Air Resources Board, through AB 32, regarding the development of the market-based program that has now been adopted, known as “Cap and



Trade.” Thus, the Legislature directed ARB to require that reductions relied on as part of Cap and Trade be “in addition to any greenhouse gas emission reduction otherwise required by law or regulation, *and any other greenhouse gas emission reduction that otherwise would occur*” (emphasis added).

However, in crafting the amendment to CEQA Guideline section 15126.4, the Natural Resources Agency noted that AB 32 and CEQA are separate statutes, and that, in the CEQA context, the latter phrase (emphasized above) does not necessarily have relevance in a discussion of CEQA mitigation requirements. The Resources Agency, thus, intentionally omitted that portion of the requirement, stating that only greenhouse gas emission reductions that are otherwise required by law or regulation would appropriately be considered part of the existing baseline.

Thus, the administrative record for the amendment to section 15126.4(c) demonstrates that, while the Resources Agency intended greenhouse gas emissions that are required by law or regulation be included in the existing baseline for a project, it specifically excluded “any other greenhouse gas emission reduction that would otherwise occur” from the existing baseline. Accordingly, the Resources Agency has expressly rejected the interpretation of section 15126.4(c)(3) that the AG now urges.

Following the above-referenced comment period, the Resources Agency revised section 151226.4(c) as follows:

(c) Mitigation Measures Related to Greenhouse Gas Emissions.

Consistent with section 15126.4(a), lead agencies shall consider feasible means, supported by substantial evidence and subject to monitoring or reporting, of mitigating the significant effects of greenhouse gas emissions. *Reductions in emissions that are not otherwise required may constitute mitigation pursuant to this subdivision.* Measures to mitigate the significant effects of greenhouse gas emissions may include, among others:

- (1) Measures in an existing plan or mitigation program for the reduction of emissions that are required as part of the lead agency’s decision;
- (2) Reductions in emissions resulting from a project through implementation of project features, project design, or other measures, such as those described in Appendix F;
- (3) Off-site measures, including offsets, to mitigate a project’s emissions;
- (4) Measures that sequester greenhouse gases; and
- (5) In the case of the adoption of a plan, such as a general plan, long range development plan, or greenhouse gas reduction plan, mitigation may include the identification of specific measures that may be implemented on a project-by-project basis. Mitigation may also include the incorporation of specific measures or policies found in an adopted



ordinance or regulation that reduces the cumulative effect of emissions (emphasis added).

Rather than addressing the “not otherwise required” language in subsection (c)(3), the Resources Agency added it to the preface of subsection (c) such that it became applicable to all of the various types of mitigation listed in the section. In other words, it was not just offsets that the Resource Agency proposed to apply the “not otherwise required” standard to, but all off-site mitigation, all measures in plans, all project design features, all sequestration measures, etc.

Natural Resources Agency reaffirmed their concept of “additionality” in the CEQA context in their November 10, 2009 response to comments from the Center for Biological Diversity.

Comments on the above revisions to section 1512604(c) were received and addressed by the Resources Agency in October and November of 2009. This round of responses did not alter the Resource Agency’s position regarding the meaning of “additionality” for purposes of CEQA.

Rather, in its response to the comment submitted by the Center for Biological Diversity, the Resources Agency acknowledged that the language that applied the term “not otherwise required” to all forms of GHG mitigation was confusing, and explained as follows:

...the Natural Resources Agency has further refined section 15126.4(c) to clarify that the “not otherwise required” limitation applies in the context offsets. Specifically, the added sentence has been deleted, and subdivision (c)(3) has been revised to state that mitigation includes: “Off-site measures, including offsets that are not otherwise required, to mitigate a project’s emissions[.]”

This revision does not imply that changes in a project that are made pursuant to environmental regulations cannot be considered mitigation. Offsets by their nature occur as part of some other action. Moving this concept from the general provisions on mitigation of greenhouse gas emissions to the provision on offsets does not materially alter the rights or conditions in the originally proposed text because the “not otherwise required” concept would only make sense in the context of offsets. Because this revision clarifies section 15126.4(c)(3), consistent with the Public Resources Code and cases interpreting it, and does not alter the requirements, rights, responsibilities, conditions, or prescriptions contained in the originally proposed text, this revision is nonsubstantial and need not be circulated for additional public review.

Accordingly, the above makes clear that, by moving the phrase “not otherwise required” to subsection (c)(3), the Resources Agency did not modify its earlier



position on the applicability of “additionality” in a CEQA context, as such a change would be substantive.

Thus, the District believes that the history leading up to the Resources Agency’s addition of CEQA Guideline 15126.4(c)(3) makes clear that, while the Resources Agency intended offsets used to mitigate a project’s greenhouse gas impacts under CEQA to be additional of any *greenhouse gas emission reductions* that are otherwise required by law or regulation, it did not intend for the offsets to be additional of *other types of emissions reductions* required by law or regulation.

Indeed, the AG’s reading of section 15126.4(c)(3) would lead to the absurd result that banked offsets must be additional of *all* other regulatory requirements but other off-site mitigation need only be additional of greenhouse gas requirements. A more plausible reading of the phrase, “offsets that are not otherwise required” is that a project proponent cannot use as CEQA mitigation offsets that have already been used for some other purpose, such as an air district’s new source review regulation.¹

The Final Statement of Reasons for Regulatory Action (FSOR) and the final CEQA Guidelines language were then published by the Natural Resources Agency in December of 2009, claiming no substantial changes to the previous version.

The final version of section 15126.4(c) (shown in strikeout format to demonstrate the revisions) is as follows:

(c) Mitigation Measures Related to Greenhouse Gas Emissions.

Consistent with section 15126.4(a), lead agencies shall consider feasible means, supported by substantial evidence and subject to monitoring or reporting, of mitigating the significant effects of greenhouse gas emissions. ~~Reductions in emissions that are not otherwise required may constitute mitigation pursuant to this subdivision.~~ Measures to mitigate the significant effects of greenhouse gas emissions may include, among others:

¹ This could occur when a proposed project would result in increases in volatile organic compounds (VOC) and GHGs, and the project is required to surrender offsets for the VOC emissions under an Air District regulation. Under this scenario, the project could not then use any GHG reductions that also occurred as a result of the VOC reduction to mitigate the GHG increase. Another example of the “offsets not otherwise required” could be in the context of CAP and Trade facilities: one of the potential compliance mechanisms under Cap and Trade is a partial reliance on GHG offsets banked under an ARB-approved protocol. The plain language of this section is saying that offsets that are relied upon in showing compliance with Cap and Trade are not then available to show mitigation under CEQA.



(3) Off-site measures, including offsets **that are not otherwise required**, to mitigate a project's emissions;

Regarding the changes to the section, the FSOR states on Page 48:

The reference to 'offsets' in subdivision(c)(3) generated several comments during the public review period. The offsets concept is familiar in other aspects of air quality regulation. The Federal Clean Air Act, for example, provides that increases in emissions from new or modified sources in a nonattainment area must be offset by reductions in existing emissions within the nonattainment area. (See, e.g., 42 U.S.C. §7503(a)(1)(A).) California laws also apply to offsets and emissions credits. (See, e.g., Health & Saf. Code, §39607.5.) Those other laws generally require that emissions offsets must be 'surplus' or 'additional'. Comments on the proposed amendments suggested that to be used for CEQA mitigation purposes, offsets should also be 'additional.' Thus, the Natural Resources Agency further refined the revisions it publicized on October 23, 2009, by deleting the lead-in sentence stating that 'Reductions in emissions that are not otherwise required may constitute mitigation pursuant to this subdivision,' and amending subdivision (c)(3) to state that mitigation may include 'Off-site measures, including offsets **that are not otherwise required**, to mitigate a project's emissions[.]'

Moving this concept from the general provisions on mitigation of greenhouse gas emissions to the provision on offsets does not materially alter the rights or conditions in the originally proposed text because the 'not otherwise required' concept would only make sense in the context of offsets. Because this revision clarifies section 15126.4(c)(3), consistent with the Public Resources Code and cases interpreting it, and does not alter the requirements, rights, responsibilities, conditions, or prescriptions contained in the originally proposed text, this revision is non-substantial and need not be circulated for additional public review.

Examining this regulatory history makes it very clear that the Resources Agency never wavered from its initial determination that agencies implementing section 15126.4(c) should not apply the AB 32 standard that reductions relied on as part of Cap and Trade must be "in addition to any greenhouse gas emission reduction otherwise required by law or regulation, *and any other greenhouse gas emission reduction that otherwise would occur*" (emphasis added). Instead, in a CEQA context, lead agencies should apply only a part of that standard, specifically that offsets that are relied on as mitigation should be *greenhouse gas emissions reductions* that are not otherwise required. Accordingly, the Resources Agency never intended to require offsets to be additional of *all* regulatory requirements as the AG suggests.²

² It should also be noted that the Resources Agency uses the words "surplus" and "additional" interchangeably in the FSOR. The term surplus is used in the Clean Air Act



Finally, the definition of “additionality” in the FSOR makes clear that the Resources Agency did not intend its use of the phrase “offsets that are not otherwise required” to mean that offsets must be additional of all regulatory requirements. On page 89 of the FSOR, the Resources Agency defined “additional” as follows:

...the additionality concept may be applied analytically (in the context of CEQA) as follows: *greenhouse gas emission reductions* that are otherwise required by law or regulation would appropriately be considered part of the existing baseline (emphasis added).

Accordingly, while section 15126.4(c)(3) prohibits the use of offsets generated to comply with regulatory requirements directed at greenhouse gas emissions, it does not govern the use of offsets generated as a co-benefit of some other regulatory requirement, such as an air district’s VOC or NOx regulation.

Other Issues related to the AG’s comments on “additionality”

Regardless of the language in CEQA Guideline 15126.4(c), the District appropriately applied the concept of additionality in Rule 2301 because section 15126.4(c) governs the *use of credits as mitigation*, not the adoption of a program to recognize and encourage the *creation* of GHG reductions.

The District agrees that one must examine the appropriateness of using offsets to mitigate a significant GHG increase. The regulation and the FSOR are very clear in that regard. However, this language does not provide any guidance or requirements for programs designed for the creation of offsets, such as Rule 2301. This lack of specificity is appropriate, as lead agencies have wide latitude in determining significance thresholds, based on their examination of the available science and other evidence. The nature of that significance threshold then determines the necessary nature of mitigations required, within the context of the significance threshold used by the lead agency.

If the Resource Agency had intended the limiting language to apply to the *creation* of offsets or credits, rather than the *use* of the offsets as mitigation, it had ample opportunity to say so, but in fact it solely addressed the *use* of offsets as mitigation. Therefore, nothing in CEQA Guideline 15126.4(c) should be applied to a program aimed at the creation of credits.

context to mean additional of only those requirements applicable to the specific pollutant at issue, not additional of all possible regulatory requirements. Thus, the Resources Agency’s use of the terms “surplus” and “additional” synonymously further indicates that the Resources Agency had no intention of requiring greenhouse gas offsets to be additional of all regulatory requirements.



In providing comments on the District's proposed Rule 2301, the AG has expanded the definition of the term additionality by applying a single standard to all offsets, regardless of the FSOR's definition and regardless of a lead agency's analysis and basis of a project's impacts. This is inappropriate under CEQA, as discussed above, and inconsistent with the statutory mandate in Public Resources Code sections 21002 and 21081 that mitigation be tied to the lead agency's analysis of the effects of a project.

Under CEQA, mitigation must be roughly proportional to the impact being mitigated.

Section 15126.4(a)(4)(B) requires that mitigation measures be roughly proportional to the lead agency's analysis of the impacts of a project. Applying a standard of "additionality to all requirements" to all reductions that are then banked as emission reduction credits does not consider the nature and scope of the lead agency's analysis of a project's impacts. This could result in non-proportional mitigation of a project's impacts when those credits are used as offsets.

For instance, the District's analysis of the GHG impacts of a particular project with increased GHG emissions will assess the increases in the context of whether they comply with AB 32's goal of a 29% reduction from the year 2020 projected emissions. Any required mitigation should then also be based on the same approach – namely, are the reductions surplus and additional to the requirements of AB 32. In other words, the mitigation the AG would have us require does not match with, and would not be proportional to, the District's analysis of the GHG impacts of the project. The mitigation under the AG's approach would be required to be surplus and additional to all requirements, rather than just additional to greenhouse gas requirements. As a result, the District would have to require more credits, or more costly credits, than would be required under its current CEQA policy. Requiring disproportional mitigation in this fashion would violate CEQA.

The five types of GHG mitigation types listed in the CEQA Guidelines are not all-inclusive.

Regardless of the discussions above, section 15126.4(c) says, "Measures to mitigate the significant effects of greenhouse gas emissions *may include, among others...* offsets that are not otherwise required, to mitigate a project's emissions" (emphasis added).

This language indicates that both the Office of Planning and Research and the Resources Agency recognized that there may be methods of mitigating GHG impacts other than those considered and listed by the agencies. Again, this is relevant to the District's position that the appropriate time to consider whether any particular use of any mitigation is appropriate for a specific project is at the time the impacts of that project are being considered under CEQA, not at the



time of creation of some recognized “credit” which may or may not be used in a CEQA context. A lead agency may determine and demonstrate that “credits” banked by the District under Rule 2301 are valid mitigation for a GHG increase, in the context of its own significance threshold. As the FSOR states:

The CEQA Guidelines do not establish thresholds of significance for other potential environmental impacts, and SB97 did not authorize the development of a statewide threshold as part of this CEQA Guidelines update. Rather, the proposed amendments recognize a lead agency’s existing authority to develop, adopt and apply their own thresholds of significance or those developed by other agencies or experts. As set forth in the existing section 15064.7, a threshold is “an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant.” Because a threshold would be used in the determination of significance, the threshold would need to be supported with substantial evidence. (CEQA Guidelines § 15064.7(b).)

Therefore it is not appropriate to try to anticipate all the variations in CEQA significance determinations and the related mitigation decisions at the time of creation of credits or offsets that may be used as CEQA mitigation. The effort being discussed here is one more step removed: it is an effort to develop a program designed to recognize and encourage GHG reductions that may eventually be used as CEQA mitigation, under circumstances where they are appropriate based on a lead agency’s analysis of the significance of the GHG impacts of a particular project.

To examine the appropriateness of any particular mitigation, one must wait until the lead agency performs its role under CEQA in analyzing a project’s impacts and the significance of those impacts. Only then can one analyze the appropriateness of any proposed mitigations in the context of the lead agency’s GHG CEQA processes and policies.

The AG’s comments regarding Rule 2301 come too early in the process and should be reserved for individual cases where the AG believes that credits recognized under Rule 2301 are being inappropriately used as mitigation of a GHG impact.

The District recognizes that some lead agencies may want access to offsets that are surplus and additional of all requirements.

The District recognizes that some CEQA lead agencies, even in the San Joaquin Valley, have not adopted the San Joaquin Valley Air District’s Greenhouse Gas CEQA policy, or any other policy based on compliance with the AB 32 obligations. In fact, as discussed above, some lead agencies and other air



districts have instead adopted quite high significance thresholds below which no GHG mitigation is required. To the extent that increases below the threshold go unmitigated, these agencies are relying on incidental reductions in GHG emissions, such as those that result from non-GHG regulatory requirements, to achieve the reduction goal under AB 32. The District does not agree that this hands-off approach is best, and we do not rely on these incidental reductions to achieve the state's GHG reduction goals. Instead, under the District's policy, all projects with GHG emissions increases must demonstrate a 29% reduction in GHG emissions, consistent with the overarching requirements of AB 32 and its scoping plan, as discussed in more detail below.

However, in recognition that these other agencies may need to require extra mitigation for projects exceeding their significance thresholds because they are not requiring all GHG emissions increases to be mitigated, the District is now proposing to issue a second category of non-protocol-based emission reduction credits for GHG reductions: those that are additional of all requirements, rules, or regulations. Each reduction certified by the District will then be labeled with two pieces of information. First, the method of generating the reduction will be identified, and second, the ERC will be labeled as "*surplus and additional to all applicable GHG reduction regulatory requirements*" or "*surplus and additional to all applicable regulatory requirements.*"

Both types of credits would then be available for use as offsets, as appropriate, under an individual lead agency's significance criteria and other CEQA policies.

Credits that are "surplus and additional to all applicable GHG reduction regulatory requirements" are appropriate for use as CEQA mitigation under certain circumstances.

For the purposes of the use of GHG emission reduction credits in the context of the District's GHG CEQA policies and procedures, as explained below, no significant change is necessary to the current proposed amended rule, and so, while the District is adding the second category of GHG ERCs discussed above, we are also maintaining the existing rule language allowing the banking of GHG reductions that are surplus to all required GHG reductions.

For this discussion it's important to note that Rule 2301 does not prescribe any particular use of the GHG emission reduction credits. The District agrees that the resulting credits are likely to be proposed for use to mitigate significant GHG impacts under CEQA, under certain conditions, but they may also be used for various non-regulatory purposes or they may be banked by those making GHG reductions and then never used for any purpose. Rule 2301 in no way supersedes the authority of any lead agency to make determinations of significance or to ascertain proper mitigation. The rule is specific in stating that the nature of any eventual use of credits banked under its provisions is not defined or mandated by the rule.



In fact, the proper time for determining the adequacy of the credits for mitigating a significant impact under CEQA is during the analysis of that proposed use as a mitigation of a specific increase, which analysis must include all factors relevant to the lead agency's policies and practices related to determining and mitigating significant impacts. CEQA provides significant latitude and discretion in determining levels of significance, within certain defined constraints, and that latitude creates widely varying, yet equally valid, determinations of significance across the range of CEQA lead agencies in California³.

Therefore, the AG's comments regarding the validity of Rule 2301, based on the use of credits in the context of some hypothetical CEQA policy, are not ripe. In addition, the AG's comments inappropriately narrow the flexibility and discretion provided by the new section of the CEQA Guidelines that were specifically added to provide that discretion, Section 15064.4, which states in part:

- (a) *The determination of the significance of greenhouse gas emissions calls for careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. 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. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or*
 - (2) *Rely on a qualitative analysis or performance based standards.**

The District's approach to determining the significance of GHG impacts for projects follows the performance-based approach suggested in Section 15064.4(a)(2) above⁴.

³ It should be noted here that the basis of the District's GHG significance criteria for CEQA purposes (namely using the performance standard of compliance with AB 32's goal of reducing GHG emissions by 29% of the 2020 business as usual baseline emissions) has been upheld by the California courts. See *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista*, 197 Cal App 4th 327, 335-337 (2011), *review denied* (Oct. 19, 2011).

⁴ See the District's staff report (<http://www.valleyair.org/Programs/CCAP/12-17-09/1%20CCAP%20-%20FINAL%20CEQA%20GHG%20Staff%20Report%20-%20Dec%2017%202009.pdf>) and permitting policy (<http://www.valleyair.org/Programs/CCAP/12-17-09/2%20CCAP%20-%20FINAL%20District%20Policy%20CEQA%20GHG%20-%20Dec%2017%202009.pdf>) for a fuller discussion of the District's approach to the significance of GHG emissions under CEQA.



The District's policy on this issue does not establish a threshold above which GHG emissions increases are believed to be significant. Instead, it requires that all projects with increases in GHG emissions provide mitigation consistent with compliance with AB 32 and its scoping plan. In other words, increased GHG emissions that are mitigated by 29% (compared to ARB's projected 2020 emissions)⁵ are not significant, because such mitigated emissions are wholly consistent with the AB 32 Scoping Plan's assessment of the reductions in California's 2020 emissions (including the growth in GHG emissions between 2004 and 2020) that are necessary to reach the 1990 GHG emissions level mandated by AB 32, and therefore meet our performance standard. Note that all expected growth in GHG emissions is included in ARB's analysis – this includes the specific growth that will be analyzed under CEQA for any particular proposed GHG increase.

In practice, this means that the District's CEQA policy requires that all permitting projects proposed in the San Joaquin Valley with increased GHG emissions must propose to mitigate those emissions by 29%, or be considered significant. While we have built some streamlined processes⁶ for project proponents to meet this target, the District continues to see a need for other mitigation methodologies. Offsets that are generated by reductions in GHG emissions are one potential method, if it can be demonstrated that the reductions are consistent with the District's underlying CEQA significance policy.

To that end, Rule 2301 defines the criteria for bankable GHG emissions reductions, in part, as follows:

4.5.3 The greenhouse gas emission reductions are real, surplus, permanent, quantifiable, and enforceable...

For the purposes of this discussion, the essential word is "surplus." Surplus is further defined for the purposes of GHG banking in two relevant sections of the rule (note that 4.5.3.1 and 4.5.3.4 are not relevant to this discussion):

4.5.3.2 Greenhouse gas emission reductions that occur as a result of law, rule, or regulation that required the greenhouse gas emission reduction are not surplus.

4.5.3.3 Greenhouse gas emission reductions that occur due to an action taken by an entity that is not the result of any greenhouse gas emission reduction requirement are surplus and additional of all greenhouse gas reduction requirements...

⁵ This 29% reduction is derived from the AB 32 scoping plan, and is the calculated reduction from expected GHG emissions in California in the year 2020, including economic growth, but excluding any GHG controls, necessary to achieve year 1990 GHG emissions levels as mandated by AB 32.

⁶ Most notably by proposing to use equipment or controls that meet the "Best Performance Standards" established by the District for specific types of proposals.



Section 4.5.3.2 would prohibit the District from issuing credit for any reduction that is required by AB 32 and the AB 32 scoping plan, and 4.5.3.3 clarifies that reductions that are co-benefits of some other type of regulatory effort are surplus, as long as they are not specifically required as a GHG emissions reduction effort.

Now the question is do such credits properly mitigate GHG emissions increases under the District's CEQA policies? The answer is yes.

For instance, let's look at an example of a reduction to which the District would be required to apply both 4.5.3.2 and 4.5.3.3 before issuing a corresponding emission reduction credit:

Rule 4702 is a rule adopted by the air district to reduce pollution emissions, primarily nitrogen oxides (NOx), from internal combustion engines. It is not designed to reduce GHG emissions, nor does it require any GHG reductions. Agricultural irrigation pump engines are subject to this rule, and owners of such engines must reduce the NOx emissions from those engines. They may propose to replace the engine with a significantly cleaner (lower NOx emissions) internal combustion engine, but this does not have a significant impact on GHG emissions as approximately the same amount of fuel will be burned in both cases, and therefore approximately the same amount of CO2 emissions will be generated.

However, another option available to the owner is to electrify the irrigation pump, eliminating the combustion process entirely. This approach is preferred by the District, because it removes all of the local pollution impacts entirely. In addition, because grid electrical power is more efficiently produced than mechanical engine power, there is a reduction in GHG emissions (and other pollutants) when an engine is electrified. This GHG reduction is real and quantifiable, and would be made enforceable and permanent under Rule 2301 by permit conditions or legal contract. Also, it is not required by any GHG reduction effort envisioned in the AB 32 scoping plan so it complies with section 4.5.3.2.

So electrification is an optional method of complying with the required NOx emissions reductions of Rule 4702, but that doesn't affect the nature of the GHG reduction: it is still real, quantifiable, permanent, enforceable, and surplus of all GHG emissions reduction efforts. And in fact, we're hoping that the existence of Rule 2301 creates market conditions that drive engine operators to electrify, rather than merely replace their engines with other, albeit cleaner, engines – as explained above, the air quality impacts are significantly more favorable when the engines are electrified.

The District would then, following the rule compliance analysis sketched above, issue a certificate that certifies the GHG reduction meets the criteria of the rule.



Now let's look at a project that might need to mitigate an increase in GHG emissions under the District's CEQA policy. For example, consider a proposed boiler at a manufacturing plant. When this permitting project is proposed, the District, in its role of CEQA lead agency, would analyze whether the GHG emissions increase is mitigated by 29%. This mitigation could be provided in any number of ways, including providing offsets that are consistent with the District's CEQA policy. Again, our CEQA policy is based on the State of California's determination, via AB 32, that 2020 emissions, including growth in emissions after 2004, must be reduced by 29%. If the District requires all increases to be mitigated by 29% from projected 2020 levels, we have successfully assisted California in meeting that goal.

The AB 32 scoping plan has laid out in considerable detail the reductions that will be necessary to achieve the 29% reduction, but GHG reductions from the electrification of agricultural irrigation engines are not included. Because the GHG emissions reduction from the engine discussed above is not in any way accounted for in the AB 32 scoping plan's assumptions or requirements, it is a valid reduction to use towards meeting the District's CEQA obligation of a 29% reduction. In other words, these engine electrification reductions are additional to all AB 32 requirements.

In conclusion, the answer to the question, "Does Rule 2301 result in the creation of credits that can be used to *...mitigat(e) the significant effects of greenhouse gas emissions?*" is "Yes, reductions banked under Rule 2301 are additional to all GHG reductions required under AB 32, and therefore are consistent with the District's CEQA policies related to GHGs."

It should be noted that the Governor's Office of Research and Planning and the California Natural Resources Agency both declined to use the word "additional" in the CEQA guidelines related to defining allowable offsets. This omission was appropriate, since the word "additional" has been used in so many contexts relating to GHG reductions that it has no single meaning. One group who commented on the District's rule believes that for a reduction to be additional, it must be one that would not happen in the absence of the credit system acknowledging the emissions reduction. Others say that a reduction can be additional if it is not otherwise required (directly or indirectly) by a rule or regulation. Both definitions are likely appropriate within the confines of one or more of the various GHG reduction efforts that now exist in the world, but, as discussed in more detail above, neither is appropriate to apply to Rule 2301.

In recognition of this potential for confusion, the District had at first chosen to avoid the use of the word "additional" in its rule. However, the AG's comments, and those of others, has caused the District to understand that the absence of the word has contributed to the confusion it hoped to avoid, and causes some to be concerned about the adequacy of the credits. The District now believes that a better approach is to carefully define the use of the word "additional" within the confines of the rule.



As discussed above, the District will define “additionality” for use in the context of Rule 2301 via sections 4.5.3.3 and 4.5.3.4, as follows:

- 4.5.3.3 Greenhouse gas emission reductions that occur due to an action taken by an entity that is not the result of any greenhouse gas emission reduction requirement are surplus and additional of all greenhouse gas reduction requirements. Such emission reduction credit certificates shall be identified as specified in Section 6.15.2.
- 4.5.3.4 Greenhouse gas emission reductions that occur due to an action taken by a facility that is not the result of any requirement, including any requirement that is not intended to control greenhouse gases, are surplus and additional of all requirements. Such emission reduction credit certificates shall be identified as specified in Section 6.15.3.

Finally, on this “additionality” concept, the AG’s references to a report by a District-sanctioned technical workgroup are incomplete and off-target⁷. The section of the report referenced by the AG is applicable to the development of a carbon exchange system that serves as a registry for greenhouse gas credits banked under CARB-approved protocols and are theoretically interchangeable with other national or international carbon registry. The District is proposing such a registry with amended Rule 2301 (see sections 4.5.1, 4.5.5, 5.6, and 6.15.1), but all credits associated with that registry would be required to follow CARB-approved GHG reduction protocols. CARB has made it clear that all such protocols must include carefully defined and individually identified methods for assuring “additionality.” In fact, the AG is not commenting on the section of the rule that discusses such a carbon exchange registry. Instead, the AG is commenting on the non-protocol credits that would then be available for use under the District’s CEQA policy.

Fortunately, the same technical workgroup report referenced by the AG does discuss and provide guidance on, beginning on page 14, the option on which the AG is commenting, namely, “Develop a District-only greenhouse reduction registration program.” The discussion that follows is quite clear in specifying that credits issued under such a program could be for emission reductions that are surplus (additional to GHG reduction requirements), rather than “additional” to all requirements.

In conclusion, in recognition of the potential for other agencies’ reliance on numeric significance thresholds, and the probable need for credits that are additional of any and all requirements, rules, or regulations, the District is

⁷ See <http://www.valleyair.org/Programs/CCAP/03-04-09/SJVCE%20program%20final%20report%20to%20APCO%203-4-09.pdf>



proposing to satisfy the AG's comments by creating another category of certified GHG emissions reduction for such credits. Such credits will be labeled accordingly, and should be a valuable mitigation option for other lead agencies' approaches to addressing GHGs under CEQA. However, the District will continue to offer, with these rule amendments, the service of certifying GHG emission reductions that are additional to all GHG-reduction requirements, as well. Such surplus reductions may be available to mitigate GHG emissions increases under the District's CEQA policy, and any other lead agency's CEQA policy that relies on AB 32 compliance as its basis.

Comment 2

The AG's office commented that the Rule 2301 amendments should not allow the calculation of the quantity of emission reductions as the difference between any 24 month period in the last 60 months and the post-project emission level. This methodology could allow applicants to choose a high level of pre-project emissions that is not representative of normal operations or that does not have a likelihood of continuing into the future without the emission reduction project. This would result in inflated credits or paper reductions, which do not constitute mitigation under CEQA. In addition, the AG's office states that the effects of climate change will disproportionately impact lower income residents who can't afford air conditioning and farm workers who must work outside, and implies that such "inflated" credits will exacerbate that problem.

Response 2

The District's original proposal to calculate greenhouse gas emission reductions allowed the use of any consecutive 24 month period during the previous 60 months determine the actual emissions. The emission reduction is the difference between the actual greenhouse gas emissions and the potential greenhouse gas emissions after the emission reduction project. This methodology is consistent with the methods used in the Federal Clean Air Act "New Source Review" requirements to calculate actual emissions, and the District's experience in implementing this regulation is that the fear of inflated emissions is not borne out in practice. Typically, the emissions from any 24-month period have proven roughly representative of normal operations.

However, the District recognizes the potential for manipulation of operations to spike emissions, and we agree with the AG's office that the District should instead use our standard approach to ascertaining historical emissions for the purposes of banking criteria for non-GHG pollutants, consistent with the requirements in District Rule 2201 – New and Modified Stationary Source Review. Specifically, the District now proposes to require that the actual emissions be the historical annual average emissions calculated using the 24 consecutive month period immediately prior to when the emission reduction occurred, or another consecutive 24 month period in the 60 months prior to when the emission reduction occurred, if the alternate period is determined by the Air



Pollution Control Officer as more representative of normal operation. Section 4.5.4 has been amended accordingly.

This proposed revision will ensure that applicants do not manipulate their operation in a manner to maximize emission reductions beyond what would have normally occurred, and will make the calculation of historical emissions consistent with that used in the District's traditional emissions reduction banking processes. This should eliminate the AG's concern about the potential for inflated credits.

Although the above should also address any concern the AG has over the rule exacerbating any "*effects of climate change...disproportionately affect(ing) certain San Joaquin Valley residents,*" it is important to note that the OEHHA report referenced by the AG very clearly shows a strong decrease in extreme heat trends at almost all San Joaquin Valley sites referenced over the past fifty-plus years. It is simply not possible, given the data presented, to conclude that the Valley's temperature or number of extreme heat events has increased over that period. Therefore, any conclusion based on this data that climate change is having a negative impact on people in the San Joaquin Valley is speculative.

Comment 3

The AG commented that the proposed rule amendments would reduce the incentives under CEQA for project proponents to actually mitigate GHG emissions, and therefore inhibit the reduction of harmful co-pollutants.

Response 3

The District's disagrees with the comment. The proposed amendments would neither reduce nor enhance incentives to mitigate GHG emissions under CEQA. The proposed amendments to Rule 2301 do nothing to affect mitigations – they only identify the processes and criteria for the District to certify that a reduction has taken place. In fact, the District believes that the amendments to Rule 2301 will provide market forces that will encourage the generation of emissions reductions that would not have otherwise occurred (see irrigation pump example under Response 1, above). The appropriateness of whether those reductions are available and viable as CEQA mitigations would then be determined during the CEQA analysis of a specific project with proposed increases in emissions, within the confines of the relevant and specific CEQA significance policy and process adopted by the lead agency, and not at the time an emissions reduction is generated.

To the extent that the AG's comment 3 was directed at the District's pre-project emissions calculation methodology, we are now proposing to change that methodology consistent with the AG's comments (see response to comment 2).



Comment 4

The AG states that these comments do not constitute an exhaustive review of the District's proposed rule.

Response 4

Considering the weight carried by comments from the Attorney General, it is unfortunate that the Attorney General's office did not take the time to review and understand the District's proposed rule and its relationship to the District's GHG CEQA policy more thoroughly before submitting its comments. Although the Rule 2301 amendments have potential uses beyond providing GHG mitigation under CEQA, the AG's comments on this rule are exclusively regarding this CEQA context. In the absence of state guidance on establishing CEQA significance thresholds, the District has invested thousands of person-hours to investigate and publicly discuss all the possible paths to establishing a workable and environmentally protective GHG CEQA policy.

The District believes strongly in bringing innovation and streamlining to our regulatory obligation to clean up the San Joaquin Valley's air quality. In today's recessionary business environment and anti-regulatory atmosphere, it is more important than ever for environmental protection agencies to exercise creativity in protecting our natural resources in ways that allow continued economic growth and simultaneously protect the public's health.

The District is proud to have developed a GHG CEQA approach that does just that. It is streamlined in implementation and more protective of climate change than any other air district policy that we've seen put into place to deal with GHG emission increases under CEQA. Other policies allow increases in GHG emissions under various arbitrary thresholds to go unmitigated, artificially label projects as non-discretionary, or allow lead agencies to regularly make findings of overriding considerations. On the other hand, the San Joaquin Valley Air District's policy requires every permitting project with increased GHG emissions to mitigate those emissions. Hopefully, these benefits will be recognized by the AG's office after a more exhaustive review of the District's proposed rule and the responses to the AG's comments above.

Center for Biological Diversity Comments (CBD)

Comments from the CBD that pertain to the EIR were received after the close of the comment period. District responses to CBD comments are germane to the District's determination that approving the project would not have an adverse environmental impact. CBD comments and District responses are included herein for informational purposes.



Comment 1

Comments submitted by the Center for Biological Diversity (CBD) in 2009 remain relevant and are incorporated by reference.

Response 1

See Attachment - C to this Final EIR.

Comment 2

CBD states that the proposed Rule fails to ensure additionality of the credits, as required for use in CEQA.

Response 2

Please see responses to the Attorney General's comments for a fuller discussion of the issues, but The District disagrees with CBD's comments on additionality.

In brief, the rule does not mandate the use of the credits in any way, and the credits may have a number of uses outside the CEQA context upon which CBD bases all of its comments. Furthermore, the proper time to ascertain the appropriateness of any mitigation under CEQA is at the time it is proposed to be used to mitigate an environmental impact. Therefore, it is unnecessary to include the concept of additionality in the rule, and premature to find fault with the rule because, CBD believes, it creates credits that may not be valid for use under some lead agencies' GHG CEQA policies and procedures.

However, due to the confusion caused by the absence of the word "additional" in prior versions of the proposed amended rule, the District has addressed the additionality issue by carefully defining "additional" within the confines of the rule and considering the GHG emission reduction credits' presumed use in a CEQA context. In addition, most relevant to CBD's concerns, the District has added a category of credit for GHG reductions that are additional of all requirements, so that those lead agencies that have not adopted a CEQA GHG policy that is, like the District's, based on AB 32 compliance, can rely on the District's Rule 2301 to provide credits that additional to all requirements and are therefore presumably valid under their policies, as well. Again, note that the proper time to assess that validity will be when a lead agency proposes to allow the mitigation of a significant GHG impact with such credits.

Finally, CBD refers several times in its comments to a report by Ramseur, called "The Role of Offsets in a Greenhouse Gas Emissions Cap and Trade Program..." The District is not proposing to use the non-protocol credits on which CBD is commenting in any cap and trade program, and therefore these references by CBD are not illustrative or appropriate.



This response and the responses to the AG's comments addressed above also adequately address CBD's comments regarding additionality as addressed in the Draft EIR.

Comment 3

CBD comments that the proposed rule relies on a flawed conception of the CEQA "baseline" and permits double-counting of reductions, and that the California Attorney General has explicitly warned the District that its "business as usual" threshold of significance for GHG emissions will not adequately mitigate the effects of new projects and will leave the District and other lead agencies vulnerable to legal challenges.

Response 3

The District disagrees with the commenter. Rule 2301 relies on no CEQA concepts at all. As discussed above, the rule does not mandate the use of the resulting GHG reduction credits in any manner, and to the extent that such credits do get used to mitigate GHG impacts under CEQA, the appropriate time to address the validity and adequacy of those credits is at that time.

However, it should be noted that the District's CEQA policy has been in place for approximately two years, without legal challenge. In fact, the basis of the District's GHG significance criteria for CEQA purposes (namely using compliance with AB 32, including its scoping plan's business-as-usual baseline, as its measure of the significance of GHG emissions increases) has been upheld by the California Courts. See *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista*, 197 Cal App 4th 327, 335-337 (2011), review denied (Oct. 19, 2011).

Even notwithstanding the *City of Chula Vista* case, the District believes CBD's analysis of double-counting is flawed. CBD incorrectly concludes that ARB's definition of "business as usual" emissions in the year 2020 includes reductions that would have occurred for "virtually any reason" other than those required by a GHG reduction regulation. ARB could not predict the quantity of GHG reductions that will occur without the benefit of a GHG reduction requirement before the year 2020. In fact, it was not necessary for ARB to do so, because it developed the business as usual emissions estimates for the year 2020 by considering only growth in GHG emissions from the 2002-2004 baseline period. ARB did not consider or anticipate reductions of any type, except as they related to negative economic growth. See discussion of growth factors, pages F-3 and F-4, of Appendix F of ARB's Climate Change Scoping Plan.

Comment 4

CBD comments that the draft EIR fails to comply with CEQA, because it is based on an impermissible baseline for evaluating significance, namely one that



“compares project effects to a projected “business as usual” baseline derived from the AB 32 Scoping Plan.”

Response 4

As discussed above, the District’s CEQA significance approach for GHGs, including the “business as usual” baseline, has been upheld by the California courts, and has been found to be a valid implementation of CEQA. However, CBD’s contrary conclusions may be because of a basic misunderstanding of our approach. The District’s CEQA approach does not compare a project’s effects to the 2020 projected baseline to determine significance. Instead, it determines the significance of a project via the performance standard of comparing the project’s effects to the state’s own AB 32 scoping plan goal of reducing those “business as usual” projected baseline emissions by 29%.

See the District’s response to the Attorney General’s comments (above) for a full discussion, but under the District’s CEQA policy, all projects with increased GHG emissions are considered significant, unless they successfully demonstrate that they have met that 29% reduction through one of several mechanisms.

Comment 5

CBD comments that the DEIR’s alternatives analysis is flawed in rejecting alternative banking systems that recognize “additional” credits.

Response 5

The DEIR appropriately rejected setting up a requirement that all reductions be additional before allowing them to be banked through proposed Rule 2301, because such a requirement is not necessary for the reductions to be used in the context of mitigation under the District’s CEQA policy. It would be nonsensical to create such discrepancies between the District’s CEQA policy and a banking rule that establishes credits that may be used within that CEQA policy, as discussed above. See the District’s response to the Attorney General’s comment 1.

However, as also discussed above, the District has created another category of credit which does require additionality of all requirements, and those credits presumably address CBD’s concerns.

Western States Petroleum Association Comments (WSPA)

Comments from WSPA pertain to the draft amendments to Rule 2301 and are addressed in the Final Rule 2301 Staff Report. District responses to WSPA comments are germane to the District’s determination that approving the project would not have an adverse environmental impact. WSPA comments and District responses are included herein for informational purposes.



Comment 1

WSPA disagrees with section 4.5.3.1 of the draft rule which states that reductions that occur at facilities subject to cap and trade are not surplus (and are therefore not eligible for banking).

WSPA specifies that this comment applies to both protocol-based credits and non-protocol based credits.

Response 1

Answering the latter comment first: the limitation of 4.5.3.1 applies only to non-protocol credits. All the requirements of Section 4.5.3 and its subsections apply only to non-protocol credits, as indicated by the phrase, "...*except as provided in Section 4.5.5,*" which section says,

Greenhouse gas emission reductions proposed to be quantified using CARB approved emission reduction project protocols shall be calculated in accordance with the applicable protocol.

Therefore section 4.5.3 does not apply to protocol-based credits.

However, the District disagrees with WSPA's position that reductions that occur at a cap-and-trade facility are surplus. We believe that issuing credits for reductions that happen at cap and trade facilities would result in double-counting of those reductions, and the end result could be an unmitigated increase in GHG emissions. For instance, a facility that is subject to cap and trade is required to reduce its emissions by a certain percentage each year, or surrender a corresponding amount of allowances, offsets, or some other kind of "compliance instrument."

Thus, if a cap and trade facility reduces its own GHG emissions, that action reduces its reliance on those other cap and trade compliance instruments and the facility can even sell its excess allowances to other facilities that haven't reduced their emissions sufficiently to meet their own cap and trade obligation. Clearly, then, this reduction has already been used to meet the facility's obligation under the AB 32 cap and trade program (a GHG-reduction requirement), and so that reduction is not surplus.

If the District were to then allow that reduction to be banked as an emission reduction certificate, it could then be available to others to mitigate a GHG increase, thus double-counting the reduction, resulting in an unmitigated increase. For these reasons, the District does not agree with WSPA's comment, and will not consider reductions occurring at cap and trade facilities as surplus (accept as noted under the response to Comment 3, below).



Comment 2

WSPA comments that reductions achieved at cap and trade facilities could be considered surplus because they can't be used as offsets to satisfy a facilities cap and trade obligations.

Response 2

As noted above, reductions at cap and trade facilities don't have to be banked to become a part of the facility's cap and trade compliance effort. The reduced emissions mean that fewer other allowances or offsets need be obtained, and therefore are a direct piece of its cap and trade compliance method.

Comment 3

At the September 7 workshop, WSPA commented that the prohibition on considering reductions at cap and trade facilities to be surplus should only apply after cap and trade compliance requirements has kicked in. They reiterate this comment in their comment letter.

Response 3

The District agrees that some reductions that occur at cap and trade facilities prior to the start of cap and trade obligations can be banked. However, we believe that such reductions must occur prior to the baseline year which is used in establishing the industry-sector's cap, the year 2012. CARB has indicated that they will be issuing allowances based on 2012 emissions, using a calculation that will benefit the most efficient facilities within each industry sector. Since efficiency efforts implemented in 2012 will then benefit facilities in the cap and trade program, the District does not believe that it would be appropriate for the same facility to also benefit through the issuance of GHG credits for that same reduction.

To that end, section 4.5.3.1 has been modified to specify that reductions at cap and trade facilities that occur on or after January 1, 2012 are not surplus.

Comment 4

WSPA asks that the District revise language of section 4.5.4 to more clearly indicate that reductions may be calculated using any 24 month period out of the past 60 months.

Response 4

As discussed in our response to the Attorney General's comment 2, and for the reasons stated there, we have modified this language to require that the calculation of actual emissions be based on the 24 months just prior to the



reduction occurring, or be based of some other 24 hour period that is more representative of normal operations. Therefore, the District will not be making the clarification requested by WSPA.

Native American Heritage Commission Comments

Comment 1

Native American cultural resources were not identified within one-half mile of the area of potential effect (APE). Note: the absence of recorded Native American cultural resources does not preclude their existence.

Response 1

The comment is for informational purposes. No response is necessary.

Comment 2

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries of cultural resources or burial sites once a project is underway. The Native American Heritage Commission (NAHC) recommends that the District make contact with the provided list of Native American Contacts to see if the proposed project might impact Native American cultural resources and to obtain their recommendations concerning the proposed project.

Response 2

The draft amendments to District Rule 2301 (Emission Reduction Credit Banking) neither imposes conditions requiring installation of pollution control equipment, nor imposes conditions directly resulting in a physical change in the environment. Thus, approval of the draft amendments would not impact Native American Cultural resources.

Comment 3

The NAHC is of the opinion that the project remains under the jurisdiction of the statues and regulation of the National Environmental Policy Act (NEPA). Consultation with tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with federal requirements.

Response 3

The comment is for informational purposes. No response is necessary.



Comment 4

Confidentiality of “Historic properties of religious and cultural significance” should be considered as protected by California Government Code §6254(r) and may be protected by federal statute.

Response 4

The comment is for informational purposes. No response is necessary.

Comment 5

Processes to be followed in the event of accidental discovery of archeological resources or human remains during construction are provided in California Public Resources Code §5097.98, CA Government Code §27491, and CA Health and Safety Code §7050.5.

Response 5

The comment is for informational purposes. No response is necessary.



Attachment - C

Summary of Comments and Responses On Draft Rule 2301 Received November 3, 2009

The San Joaquin Valley Air Pollution Control District (District) provided notice of a public hearing to be held November 5, 2009, to consider adopting draft amendments to District Rule 2301 (Emission Reduction Credit Banking). The District received comments from Earthjustice, The Center for Biological Diversity, and The Center on Race, Poverty and the Environment on November 3, 2009.

Comments from the CBD pertain to the 2009, draft amendments to District Rule 9510. CBD comments and District responses are included herein for informational purposes.

Comment 1

The District has not provided any evidence that adoption of Rule 2301 will not have an adverse effect on the environment and, therefore, cannot claim an exemption under CEQA Guidelines 15061(b)(3).

Response 1

The comment is no longer relevant. A Notice of Preparation (NOP) and Initial Study (IS) for the proposed project was circulated for public comment from February 24, 2010 to March 26, 2010 (SCH # 2010022066). The IS demonstrates that the project would not have a significant adverse impact on the environment. GHG emissions and their impact on global climate change is a known subject of scientific and political debate. Recognizing the diversity of views received during an earlier rule development process for Rule 2301, the District prepared an Environmental Impact Report (EIR) to minimize potential delays in implementation of this project. The scope of the EIR is limited to addressing potential impacts implementation would have on global climate change. In response to the NOP/IS, the District received no comments regarding its determination of environmental significance or the proposed scope of the EIR.

Comment 2

Adoption of Rule 2301 will cause significant environmental impacts because Rule 2301 does not adopt the four general criteria for offsets (that the offsets be additional, quantifiable, real, and permanent) as outlined in a General Accountability Office ("GAO") Report. More specifically:



a) Additionality. Rule 2301 allows sources to bank ERCs that are not “additional” to any other requirement required by law or any greenhouse gas reduction that would otherwise occur. This lack of “additionality” conflicts with proposed CEQA Guidelines; conflicts with AB 32 (health and safety Code 38562(d)(3)); conflicts with a GAO Report; conflicts with the Voluntary Carbon Standard Program; and conflicts with the Kyoto Protocol.

b) Baseline. Rule 2301 would allow emitters to choose any consecutive 24 month period during the previous 60 months as their baseline emissions whether or not that 24 month period is representative of actual or foreseeable greenhouse gas emissions.

c) Permanence. Rule 2301 does not ensure permanence of reductions because it does not prevent ERCs resulting from a short-term project from being used for a long term project and because the reductions are not ensured by District permits.

d) Leakage. Rule 2301 does not prevent leakage (displacement of emissions to other locations).

Response 2

Response Re: ADDITIONALITY. See Response #1 to Attorney General comments and Response #2 to CBD comments (Attachment - B).

In addition, the Commenter seems confused as to the basis of the District’s proposed CEQA significance threshold, but understanding this is critical to understanding the questioned portions of the District’s amendments to Rule 2301. The basis of the District’s significance threshold is the AB 32 scoping plan. As the District discusses in its staff report, there is no science upon which to base a numeric project-by-project significance threshold, and therefore the District turned to the state’s own ambitious GHG reduction goals, as specified in the AB 32 scoping plan, to establish the significance level of GHG emissions. As the District also discusses in the CCAP staff report, the AB 32 reduction target is a 29% reduction from a hypothetical Business as Usual (BAU) level of emissions that is based on the 2002-2004 California baseline emissions which is then grown to 2020 levels, considering growth in emissions and not considering controls on existing or new emissions.

Because AB 32 sets a GHG reduction goal that includes growth in emissions, it is an ideal target to use to establish a CEQA significance threshold, and the District has done so. Therefore, provided the reductions are surplus of (or additional to - it means the same thing in this context) the requirements of AB32, they are valid for CEQA mitigation under our significance proposal.

The District’s “surplus” requirement does not conflict with the referenced section of AB 32, which specifically addresses GHG reductions required as a result of



implementing AB 32. First, it should be noted that the cited section of AB32 applies only to regulations adopted by CARB. Regardless, reductions that are not surplus of AB 32 requirements are not bankable under the District's program, so the District sees no conflict between its rule and this section.

Furthermore, the District's use of the term "surplus" does not conflict with the Government Accountability Office ("GAO") Report that the Commenter cites. First, it should be noted that the GAO Report does not constitute "evidence" that the District's approach may have a significant effect on the environment. It is simply a "report to congressional requestors" that outlines the scope of the current U.S. carbon offset market. It expressly states that the GAO is not recommending any action. It simply states that there exists a broad array of offset programs and that Congress may want to consider adopting standardized quality assurance mechanisms. The report is neither intended as guidance nor as a binding position taken by Congress or any other branch of the federal government.

With regard to "additionality", it appears that the Commenter has taken statements in the GAO Report out of context. While the report does acknowledge that stake holders and studies claim that additionality is fundamental to the credibility of offsets, it also states that other stakeholders claim that "additionality is not a critical factor at this early stage in the development of carbon markets and that the key goal should be to keep transaction costs and barriers to entry low to create financial incentives for reducing emissions." GAO Report at pp. 25-26. The Report further points out that "several stakeholders said that there is no correct technique for determining additionality;" that "[d]etermining additionality is inherently uncertain because, it may not be possible to know what would have happened in the future had the projects not been undertaken;" and that "applying a single test [to determine whether projects are additional] is too simplistic." See *id.* p. 26.

Thus, it appears that if the GAO Report stands for any proposition, it is that there is no consensus on the question of "additionality" and whether it is a critical component to an offset program. The Report is does not constitute evidence that District Rule 2301 as currently proposed may have a significant impact on the environment.

Further, the Commenter's citation to the Voluntary Carbon Standard ("VCS") program does not indicate that the District's definition of "surplus" may result in adverse environmental effects. First, the Commenter has provided no evidence that the VCS program is the "leading standard" governing the trading of carbon credits on the private market as the Commenter claims. In addition, although the VCS program appears to be one possible approach to an offset program, its existence does not indicate that the District's approach will have a significant impact on the environment. Indeed, the VCS program appears to take the "additionality" concept to one extreme; an extreme that conflicts with many of the concerns raised in the GAO Report also cited by the Commenter. The VCS does



not address other approaches to offset programs, such as the District's approach, nor does it state that other possible approaches may have adverse environmental effects. It does not address CEQA at all. In short, the VCS program provides no evidence that the proposed Rule 2301 will have any adverse effect on the environment.

Finally, the Commenter's citation to the Kyoto Protocol as evidence that the District's definition of "surplus" will result in adverse environmental effects is without merit. Like the other sources cited by the Commenter, the Kyoto Protocol does not address CEQA or the implications of using offset programs for purposes of CEQA. In addition, the United States has not even ratified the Kyoto Protocol.

Response Re: BASELINE: See response #2 to Attorney General comments and Responses 3 and 4 to CBD comments (Attachment - B).

Response Re: PERMANENCE: The District disagrees that Rule 2301 does not assure the permanence of reductions. On the contrary, all reductions banked for CEQA purposes are required to be permanent for the life of the credit – that is one of the five basic criteria that must be met before a credit can be issued. If we are to issue a short-term credit, its useful life will be clearly identified on the credit, and it would not be valid for use as full mitigation of a longer-term project. Similarly, we disagree that the permanence of credits that we issue is somehow threatened by the use of contracts to enforce the credits. In the rare case where we are forbidden by state law to use a permit to enforce a reduction, we can allow the use of a contract. However, if the contract cannot be constructed to assure the enforceability (and the permanence, etc.) of the reduction, the credit cannot be issued under the language of our rule.

Response Re: LEAKAGE. GHG reductions must be permanent before they can be banked, as discussed above. If the emissions sources are being removed from the San Joaquin Valley, but are being moved to another location outside the District where they will continue to emit, they are not permanent, and credit cannot be issued under the rule.



Attachment - D

Changes to the Draft EIR

The San Joaquin Valley Air Pollution Control District (District) provided a notice of intent to adopt an Environmental Impact Report (EIR) for the proposed amendments to District Rule 2301 (Emission Reduction Credit Banking). The Draft EIR was available for public review and comment from August 12, 2011 to September 26, 2011. All comments were duly considered and addressed in preparation of the Final Environmental Report.

Changes to the Final EIR are clerical in nature and neither constitute substantive changes to the environmental document, nor alter the District's conclusion that implementation of the project would not result in significant environmental impacts. Major changes to the environmental document are:

1. Table of Contents adjusted to reflect addition of Attachments A thru D
2. Section 6.1.2: The reader is referred to Attachments B and C for District responses to comments
3. Addition of Attachments A thru D