

Greenhouse Gas Emissions

Chapter 3.7

SUMMARY OF FINDINGS

The proposed Project will result in ***Less Than Significant Impacts*** related to Greenhouse Gas (GHG) Emissions. A detailed review of potential impacts is provided in the analysis below. A Greenhouse Gas Impact Assessment conducted by consultant Alta Environmental is included as Appendix "C" of this document, which is used as the basis for determining that this proposed Project will result in no significant impacts.

California Environmental Quality Act (CEQA) Requirements

Section 15064.4 Determining the Significance of Impacts from Greenhouse Gas Emissions

- “(a) The determination of the significance of greenhouse gas emissions calls for a 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.
- (b) A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:
- (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
 - (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
 - (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the projects incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted

regulations or requirements, an EIR must be prepared for the project.”¹

ENVIRONMENTAL SETTING

“Gases that trap heat in the atmosphere are called greenhouse gases (GHGs). The major concern is that increases in GHGs are causing global climate change. Global climate change is a change in the average weather on earth that can be measured by wind patterns, storms, precipitation and temperature. The gases believed to be most responsible for global warming are water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydro fluorocarbons (HFCs), per fluorocarbons (PFCs), and sulfur hexafluoride (SF₆).”²

“In 2007, Tulare County generated approximately 5.2 million tonnes of Carbon Dioxide Equivalent (CO₂e). The largest portion of these emissions (63 percent) is attributed to dairies/feedlots, while the second largest portion (16 percent) is from mobile sources,” as seen in Table 3.7-1.³

**Table 3.7-1
Emissions by Sector in 2007⁴**

Sector	CO ₂ e (tonnes/year)	% of Total
Electricity	542,690	11%
Natural Gas	321,020	6%
Mobile Sources	822,230	16%
Dairy/Feedlots	3,294,870	63%
Solid Waste	227,250	4%
Total	5,208,060	100%
Per Capita	36.1	

The Tulare County General Plan contains the following: “Enhancement of the greenhouse effect can occur when concentrations of GHGs exceed the natural concentrations in the atmosphere. Of these gases, CO₂, and methane are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas methane primarily results from off-gassing associated with agricultural practices and landfills. SF₆ is a GHG commonly used in the utility industry, as an insulating gas in transformers and other electronic equipment. There is widespread international scientific agreement that human-caused increases in GHGs has and will continue to contribute to global warming, although there is much uncertainty concerning the magnitude and rate of the warming.

¹ CEQA Guidelines, Section 15064.4

² Tulare County General Plan 2030 Update, *Background Report*, Page 6-17

³ Ibid. Page 6-37

⁴ Ibid. Page 6-38

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Some of the potential resulting effects in California of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years⁵. Globally, climate change has the potential to impact numerous environmental resources through potential, though uncertain, impacts related to future air temperatures and precipitation patterns. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects⁶:

- Higher maximum temperatures and more hot days over nearly all land areas;
- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas;
- Reduced diurnal temperature range over most land areas;
- Increase of heat index over land areas; and
- More intense precipitation events.

Also, there are many secondary effects that are projected to result from global warming, including global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood, and much research remains to be done, the potential for substantial environmental, social, and economic consequences over the long term may be great.”⁷

Thresholds of Significance

“The San Joaquin Valley Air Pollution Control District proposes the following process... for determining the cumulative significance of project specific GHG emissions on global climate change when issuing permits for stationary source projects.”⁸

- “Projects complying with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located would be determined to have a less than significant individual and cumulative impact for GHG emissions. Such plans or programs must be specified in law or approved by the lead agency with jurisdiction over the affected resource and supported by a CEQA compliant environmental review document adopted by the lead agency. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement BPS.”⁹
- “Projects not implementing Best Performance Standards would require quantification of project specific GHG emissions and demonstration that project specific GHG emissions would be reduced or mitigated by at least 29%, compared to BAU, including GHG emission reductions achieved since the 2002-2004 baseline period, consistent with GHG emission reduction targets established in ARB’s AB 32 Scoping Plan. Projects achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG.”¹⁰

⁵ Intergovernmental Panel on Climate Change, 2001. Climate Change 2001: Working Group I: The Scientific Basis. Section F.4 http://www.grida.no/publications/other/ipcc_tar/?src=/climate/ipcc_tar/wg1/032.htm#f5. Accessed June, 2014.

⁶ Ibid.

⁷ Tulare County General Plan 2030 Update, *Background Report*, Pages 6-27 to 6-28

⁸ San Joaquin Valley Air Pollution Control District. District Policy, Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as Lead Agency, Page 8

⁹ Ibid.

¹⁰ Ibid. Page. 9

- “Projects requiring preparation of an Environmental Impact Report would require quantification of project specific GHG emissions. Projects implementing BPS or achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG.”¹¹

The applicable BPS for the proposed Project falls under a New Continuous Mix Asphalt Plant Dryer. The facility is determined to be in compliance with applicable regulatory requirements related to GHG reduction based on warm mix asphalt capability, aggregate mixing chamber, and electric motors. The minimum percentage achieved GHG emission reduction relative to baseline emissions is 13.1%. Refer to Attachment I of Appendix C for the SJVAPCD draft standard.

REGULATORY SETTING

Federal Agencies & Regulations

Title V Operating Permit

Title V was added to the Clean Air Act in 1990, and introduced an operating permit program. It required EPA to promulgate regulations setting forth provisions under which states would develop operating permit programs for major facilities and submit them to the EPA for approval. A major facility is defined as any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit ten tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants.¹² The San Joaquin Valley Air Pollution Control District (SJVAPCD) is the local agency with permit authority over most types of stationary emission sources, which the SJVAPCD exercises through its Rules and Regulations.

Standards of Performance for New Stationary Sources

Section 111 of the Clean Air Act, “Standards of Performance of New Stationary Sources,” requires U.S. EPA to establish national emission standards for source categories, which cause or contribute significantly to air pollution. These standards are intended to promote use of the best air pollution control technologies, taking into account the cost of such technology and any other non-air quality, health, and environmental impact and energy requirements. The U.S. EPA has established New Source Performance Standards (NSPS) for several source categories (40 CFR 60). The New Source Performance Standards program is implemented by the SJVAPCD. Two of the NSPS apply to the proposed facility. These include NSPS Subpart I: Standards of Performance for Asphaltic Concrete Plants and Subpart UU: Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture. Subpart I prohibits the discharge into the atmosphere from any affected facility any gases which: 1) contain particulate matter in excess of 90 milligrams per dry standard cubic meter (0.04 grain per dry standard cubic meter) or 2) exhibit 20 percent opacity, or greater. Subpart UU prohibits the discharge into the atmosphere

¹¹ San Joaquin Valley Air Pollution Control District. District Policy, Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as Lead Agency, Page 9

¹² Clean Air Act, Sec. 112. Hazardous Air Pollutants

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from any asphalt storage tank exhaust gases with opacity greater than 0 percent, except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for clearing.

State Agencies & Regulations

California Air Resources Board

“The Air Resources Board (ARB or Board) has established State ambient air quality standards (State standards) to identify outdoor pollutant levels considered safe for the public. After State standards are established, State law requires ARB to designate each area as attainment, nonattainment, or unclassified for each State standard. The area designations, which are based on the most recent available data, indicate the healthfulness of air quality throughout the State.”¹³ The California Air Resources Board has prepared the 2004 Carbon Monoxide State Implementation Plan.

San Joaquin Valley Air Pollution Control District (SJVAPCD)

“The San Joaquin Valley Air District (SVJAPCD) is a public health agency whose mission is to improve the health and quality of life for all Valley residents through efficient, effective and entrepreneurial air quality-management strategies.”¹⁴ “The San Joaquin Valley Air Pollution Control District is made up of eight counties in California’s Central Valley: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare and the San Joaquin Valley Air Basin portion of Kern.”¹⁵

The SJVAPCD determined that the quantification of GHG Emissions is expected for all projects that require an Environmental Impact Report.¹⁶

CAPCOA is the California Association of Air Pollution Control Officers which represent all thirty-five local air quality agencies throughout California. CAPCOA has been in existence since 1975, and is dedicated to protecting the public health and providing clean air for all our residents and visitors to breathe, and is initiating the Greenhouse Gas Reduction Exchange.

The Greenhouse Gas Reduction Exchange (GHG Rx) is a registry and information exchange for greenhouse gas emissions reduction credits designed specifically to benefit the state of California. The GHG Rx is a trusted source of locally generated credits from projects within California, and facilitates communication between those who create the credits, potential buyers, and funding organizations. Four public workshops have been held throughout the state including in the SJVPACD. The mission is to provide a trusted source of high quality California-based greenhouse gas credits to keep investments, jobs, and benefits in-state, through an Exchange with integrity, transparency, low transaction costs and exceptional customer service¹⁷.

California Clean Air Act

¹³ Cal/EPA Air Resources Board, <http://www.arb.ca.gov/desig/desig.htm>. Accessed June, 2014.

¹⁴ San Joaquin Valley Air Pollution Control District. About the District. http://www.valleyair.org/General_info/aboutdist.htm#Mission. Accessed June, 2014.

¹⁵ Ibid.

¹⁶ San Joaquin Valley Air Pollution Control District. District Policy, Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as Lead Agency, Page 6

¹⁷ California Air Pollution Control Officers Association. Greenhouse Gas Reduction Exchange. <http://www.ghgrx.org/>. Accessed June, 2014.

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“The California Clean Air Act (California CAA) of 1988 establishes an air quality management process that generally parallels the federal process. The California CAA, however, focuses on attainment of the State ambient air quality standards, which, for certain pollutants and averaging periods, are more stringent than the comparable federal standards. Responsibility for meeting California’s standards is addressed by the CARB and local air pollution control districts (such as the eight county SJVAPCD, which administers air quality regulations for Tulare County). Compliance strategies are presented in district-level air quality attainment plans.”¹⁸

Executive Order S-3-05

“In 2005, in recognition of California’s vulnerability to the effects of climate change, Governor Schwarzenegger issued Executive Order S-3-05, which sets forth a series of target dates by which statewide emission of GHGs would be progressively reduced, as follows:

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

The Executive Order additionally ordered that the Secretary of the California Environmental Protection Agency (Cal EPA) would coordinate oversight of the efforts among state agencies made to meet the targets and report to the Governor and the State Legislature biannually on progress made toward meeting the GHG emission targets. Cal EPA was also directed to report biannually on the impacts to California of global warming, including impacts to water supply, public health, and agriculture, the coastline, and forestry, and prepare and report on mitigation and adaptation plans to combat these impacts.

In response to the Executive Order, the Secretary of Cal EPA created the Climate Action Team (CAT), composed of representatives from the Air Resources Board; Business, Transportation, & Housing; Department of Food and Agriculture; Energy Commission; California Integrated Waste Management Board (CIWMB); Resources Agency; and the Public Utilities Commission (PUC). The CAT prepared a recommended list of strategies for the state to pursue to reduce climate change emission in the state (Climate Action Team, 2006).”¹⁹

Assembly Bill 32: California Global Warming Solutions Act of 2006

“In 2006, California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500, et seq.), which requires the CARB to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide GHG emissions are reduced to 1990 levels by 2020.”

The bill also requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG emission reductions. The bill authorizes CARB to adopt market-based compliance mechanisms. The bill additionally requires the state board to monitor compliance with and enforce any rule, regulation, order, emission limitation, emissions reduction measure, or market-based compliance mechanism adopted by the state board, pursuant to specified provisions of existing law. The bill also authorizes CARB to adopt a schedule of fees to be paid by regulated sources of GHG emissions. Because the bill

¹⁸ Tulare County 2030 General Plan DEIR, pages 3.3-2 to 3.3-3

¹⁹ Tulare County General Plan 2030 Update, *Background Report*, Page 6-19

requires CARB to establish emissions limits and other requirements, the violation of which would be a crime, this bill would create a state-mandated local program.

Under AB 32, by June 30, 2007, CARB was to identify a list of discrete early action GHG reductions that will be legally enforceable by 2010. By January 1, 2008, CARB was also to adopt regulations that will identify and require selected sectors to report their statewide GHG emissions. By January 1, 2011, CARB must adopt rules and regulations to achieve the maximum technologically feasible and cost-effective reductions in GHG reductions. CARB is authorized to enforce compliance with the program that it develops.”²⁰

Senate Bill 97

“Governor Schwarzenegger signed Senate Bill (SB) 97 (Sutton), a CEQA and GHG emission bill, into law on August 24, 2007. SB 97 requires the Governor’s Office of Planning and Research (OPR) to prepare CEQA guidelines for the mitigation of GHG emissions, including, but not limited to, effects associated with transportation or energy consumption. OPR must prepare these guidelines and transmit them to the Resources Agency by July 1, 2009. On April 13, 2009, OPR submitted to the Secretary for Natural Resources its proposed amendments to the state CEQA Guidelines for greenhouse gas emissions. The Resources Agency must then certify and adopt the guidelines by January 1, 2010. OPR and the Resources Agency are required to periodically review the guidelines to incorporate new information or criteria adopted by CARB pursuant to the Global Warming Solutions Act, scheduled for 2012.

The OPR published a Technical Advisory in June of 2008 that is an “informal guidance regarding the steps lead agencies should take to address climate change in their CEQA documents” to serve in the interim until guidelines are established pursuant to SB 97 (OPR, 2008). This Advisory recommends that CEQA documents include quantification of estimated GHG emissions associated with a proposed project and that a determination of significance be made. With regard to significance the Advisory states that “lead agencies must determine what constitutes a significant impact. In the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a “significant impact”, individual lead agencies may undertake a project-by-project analysis, consistent with the available guidance and current CEQA practice.”²¹

Climate Change Scoping Plan

“The CARB published a *Climate Change Scoping Plan* in December 2008 that outlines reduction measures to lower the state’s GHG emissions to meet the 2020 limit. The *Scoping Plan* “proposes a comprehensive set of actions designed to reduce overall carbon emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health”. Key elements for reducing California’s GHG emissions to 1990 levels by 2020 include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;

²⁰ Tulare County General Plan 2030 Update, *Background Report*, Page. 6-20

²¹ Ibid. Pages 6-23 to 6-24

- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation."²²

Local Policy & Regulations

Tulare County General Plan Policies

The General Plan has a number of policies that apply to projects within Tulare County that support reduction efforts of GHG. General Plan policies that relate to the proposed Project are listed below.

AQ-1.7 Support Statewide Climate Change Solutions - The County shall monitor and support the efforts of Cal/EPA, CARB, and the SJVAPCD, under AB 32 (Health and Safety Code §38501 et seq.), to develop a recommended list of emission reduction strategies. As appropriate, the County will evaluate each new project under the updated General Plan to determine its consistency with the emission reduction strategies.

AQ-1.8 Greenhouse Gas Emissions Reduction Plan/Climate Action Plan - The County will develop a Greenhouse Gas Emissions Reduction Plan (Plan) that identifies greenhouse gas emissions within the County as well as ways to reduce those emissions. The Plan will incorporate the requirements adopted by the California Air Resources Board specific to this issue. In addition, the County will work with the Tulare County Association of Governments and other applicable agencies to include the following key items in the regional planning efforts.

1. Inventory all known, or reasonably discoverable, sources of greenhouse gases in the County,
2. Inventory the greenhouse gas emissions in the most current year available, and those projected for year 2020, and
3. Set a target for the reduction of emissions attributable to the County's discretionary land use decisions and its own internal government operations.

AQ-1.9 Support Off-Site Measures to Reduce Greenhouse Gas Emissions - The County will support and encourage the use of off-site measures or the purchase of carbon offsets to reduce greenhouse gas emissions.

Tulare County Climate Action Plan

²² Tulare County General Plan 2030 Update, *Background Report*, Page. Pages 6-24 to 6-25

“The Tulare County Climate Action Plan (CAP) serves as a guiding document for County of Tulare (“County”) actions to reduce greenhouse gas emissions and adapt to the potential effects of climate change. The CAP is an implementation measure of the 2030 General Plan Update. The General Plan provides the supporting framework for development in the County to produce fewer greenhouse gas emissions during Plan build out. The CAP builds on the General Plan’s framework with more specific actions that will be applied to achieve emission reduction targets consistent with California legislation.”²³

IMPACT EVALUATION

Would the project:

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

The Tulare County Climate Action Plan (CAP) presents a comprehensive set of actions to reduce the County’s direct and indirect GHG emissions. To demonstrate consistency with the CARB Scoping Plan 2020, new development in the County subject to discretionary approval needs to provide an overall minimum reduction of six percent beyond that provided by State and SJVAPCD regulation²⁴. Projects have the option to comply with an adopted statewide, regional, or local plan for reduction and mitigation; comply with an SJVAPCD approved Best Performance Standard (BPS) for the project; or quantify and demonstrate the project achieves AB32 targeted reductions compared to BAU.

The proposed Project utilizes the New Continuous Mix Asphalt Plant Dryer BPS that has been approved by SJVAPCD. The GHG inventory in Table 3.7-2 quantifies baseline, proposed Project, and resulting net increase in metric tons of carbon dioxide, methane, nitrous oxide, and total carbon dioxide-equivalents (CO₂e) that are estimated to be generated by the Project. GHG emissions for long-term operations were quantified using emission factors from the IPCC Fourth Assessment Report²⁵, EMFAC2011, SCAQMD Off-Road Mobile Source database, CalEEMod, and site utility data. Modeling details can be seen in Attachment "L" of Appendix "C" of this DEIR.

**Table 3.7-2
Long-Term GHG Emission Inventory**

Emission Source	MT CO ₂ /year	MT CH ₄ /year	MT N ₂ O/year	MT CO ₂ e/year
<i>Baseline Emissions</i>				
Asphalt Dryer	339	0.006	0.001	339.592
Hot Oil Heater	930	0.02	0.00	931
Haul Truck Exhaust	2	0.00	0.00	2
Haul Truck Idling	3	-	-	3

²³ Tulare County Climate Action Plan, page 1

²⁴ Ibid. Page 15

²⁵ Intergovernmental Panel on Climate Change (IPCC). Fourth Assessment Report. 2007. http://www.ipcc.ch/publications_and_data/ar4/syr/. Accessed December, 2014.

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Emission Source	MT CO₂/year	MT CH₄/year	MT N₂O/year	MT CO₂e/year
Employee Exhaust	0	-	-	0
End Loader	89	0.01	-	89
Purchased Electricity	5	0.00	0.00	5
Off-Site Truck Exhaust	19	0.00	0.00	19
Building Energy Use	0	0.00	0.00	0
Total	1386	0.03	0.00	1388
<i>Cumulative Emissions</i>				
Asphalt Dryer	6102	0.12	0.01	6108
Hot Oil Heater	930	0.02	0.00	931
Haul Truck Exhaust	102	0.02	0.00	102
Haul Truck Idling	96	-	-	96
Employee Exhaust	2	-	-	2
End Loader	148	0.01	-	148
Purchased Electricity	3	0.00	0.00	3
Off-Site Truck Exhaust	394	0.00	0.00	394
Building Energy Use	332	0.36	0.00	340
Total	8188	0.51	0.02	8205
Indirect Project Emissions (MT CO₂e/year)				99
Project Net Increase (MT CO₂e/year)				6916

"The facility net increase is 6,906 MTCO₂e emitted per year over baseline operations. By incorporating BPS for the facility, included in this total is a net reduction in emissions of at least 13.1%. Therefore, it is appropriate to consider this facility's impact on climate change as ***Less Than Significant*** as it meets both the County emission reduction targets and GHG reduction criteria for CEQA."²⁶

Cumulative Impact Analysis: ***Less than Significant Impact***

The geographic area of this cumulative analysis is the San Joaquin Air Basin.

The proposed Project will continue to be required to comply with all requirements of the Tulare County CAP, the SJVAPCD, and AB32. Compliance with such regulations will ensure that cumulative impacts will be minimized. Project specific and cumulative impacts related to this Checklist Item will be ***Less Than Significant***.

Mitigation Measure(s): ***None Required.***

Conclusion: ***Less than Significant Impact***

²⁶ Air Quality Impact Analysis and Greenhouse Gas Study for a Hot Mix Asphalt Plant. Page 32. Prepared by Alta Environmental. December 2014. [See Appendix "C" of this DEIR].

The proposed Project will have a ***Less Than Significant Impact*** related to the GHG resource. No mitigation is required.

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

Project Impact Analysis: ***No Impact***

This Project does not conflict with the Tulare Climate Action Plan, the Tulare County General Plan, or any Air District rules/regulations, for the purpose of reducing greenhouse gas emissions.

As concluded in the Greenhouse Gas Study prepared by consultants Alta Environmental and included as Appendix "C" of this DIER, the proposed Project's objectives and Project components are consistent with the goals of AB 32 and greenhouse gas reduction and the proposed Project will implement BPS to reduce GHG emissions by greater than 13.1%. As such, the proposed Project is consistent with the aforementioned plans, policies, and regulations. ***No Project-specific Impacts*** related to this Checklist Item will occur.

Cumulative Impact Analysis: ***No Impact***

The geographic area of this cumulative analysis is the San Joaquin Valley Air Basin. This cumulative analysis is based on the information provided in the Air Quality Impact Study prepared by consultants Alta Environmental and included as Appendix "C" of this DIER.

As the proposed Project is consistent with aforementioned plans, policies, and regulations, ***No Cumulative Impacts*** related to this Checklist Item will occur.

Mitigation Measure(s): ***None Required.***

Conclusion: ***No Impact***

As the proposed Project is consistent with aforementioned plans, policies, and regulations, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item will occur.

DEFINITIONS/ACRONYMS

DEFINITIONS

Achieved-in-Practice - “Any equipment, technology, practice or operation available in the United States that has been installed and operated or used at stationary source site for a reasonable period of time sufficient to demonstrate that the equipment, technology, practice or operation is reliable when operated in a manner that is typical for the process. In determining whether equipment, technology, practice or operation is Achieved-in-Practice, the District will consider the extent to which grants, incentives or other financial subsidies influence the economic feasibility of its use.”²⁷

Approved Alternate Technology - “Any District approved, Non-Achieved-in- Practice GHG emissions reduction measure equal to or exceeding the GHG emission reduction percentage for a specific BPS.”²⁸

Baseline - “The three year average (2002-2004) of GHG emissions for a type of equipment or operation within an identified class and category, expressed as annual GHG emissions per unit.”²⁹

Best Performance Standard - “For a specific Class and Category, the most effective, District approved, Achieved-In-Practice means of reducing or limiting GHG emissions from a GHG emissions source, which is also economically feasible per the definition of Achieved-in-Practice. BPS includes equipment type, equipment design, and operational and maintenance practices for the identified service, operation, or emissions unit class and category.”³⁰

Business-as-Usual - “The emissions for a type of equipment or operation within an identified class and category projected for the year 2020, assuming no change in GHG emissions per unit of activity as established for the baseline period.”

Category - “A District approved subdivision within a “class” as identified by unique operational or technical aspects.”³¹

Class - “The broadest District approved division of stationary GHG sources based on fundamental type of equipment or industrial classification of the source operation.”³²

Global Warming - “Global warming is an increase in the temperature of the Earth's troposphere. Global warming has occurred in the past as a result of natural influences, but the term is most often used to refer to the warming predicted by computer models to occur as a result of increased emissions of greenhouse gases.”³³

Greenhouse Gas - “Greenhouse gas (GHG) emissions are the release of any gas that absorbs infrared radiation in the atmosphere. Generally when referenced in terms of global climate they are considered to be harmful. Greenhouse gases include, but are not limited to, water vapor,

²⁷ San Joaquin Valley Air Pollution Control District Policy, Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as Lead Agency, page 6

²⁸ Ibid. Page 6

²⁹ Ibid. Page 7

³⁰ Ibid.

³¹ Ibid.

³² Ibid.

³³ Tulare County 2030 Update General Plan Background Report, page 6-3

carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydro chlorofluorocarbons (HCFCs), ozone (O₃), hydro fluorocarbons (HFCs), per fluorocarbons (PFCs), and sulfur hexafluoride (SF₆).”³⁴

Operational Boundaries - “Operational boundaries are defined as “[t]he boundaries that determine the direct and indirect emissions associated with operations owned or controlled by the reporting company. This assessment allows a company to establish which operations and sources cause direct and indirect emissions, and to decide which indirect emissions to include that are a consequence of its operations.”³⁵

ACRONYMS

AB	Assembly Bill
ARB	Air Resources Board (Short for CARB)
BAU	Business As Usual
BPS	Best Performance Standards
CAA	Clean Air Act
Cal EPA	California Environmental Protection Agency
CARB	California Air Resources Board
CH ₄	Methane
CO ₂	Carbon Dioxide
GHG	Greenhouse Gases
HFCs	Hydro fluorocarbons
MRF/TS	Material Recovery Facility/Transfer Station
MSW	Municipal Solid Waste
N ₂ O	Nitrous Oxide
OPR	Governor’s Office of Planning and Research
PFCs	Per fluorocarbons
SF ₆	Sulfur Hexafluoride
AIR DISTRICT	San Joaquin Valley Air Pollution Control District
WARM	Waste Reduction Model

REFERENCES

"Air Quality Impact Analysis and Greenhouse Gas Study for a Hot Mix Asphalt Plant" prepared by Alta Environmental, December 2014. [See Appendix "C" of this DEIR]

Cal/EPA Air Resources Board, <http://www.arb.ca.gov/desig/desig.htm>. Accessed June, 2014.

California Air Pollution Control Officers Association. Greenhouse Gas Reduction Exchange. <http://www.ghgrx.org/>. Accessed June, 2014.

³⁴ Ibid. Page 6-3

³⁵ Ibid. Page 6-29

CEQA Guidelines, Section 15064.4

Clean Air Act, Sec. 112. Hazardous Air Pollutants

Intergovernmental Panel on Climate Change, 2001. Climate Change 2001: Working Group I: The Scientific Basis. Section F.4

http://www.grida.no/publications/other/ipcc_tar/?src=/climate/ipcc_tar/wg1/032.htm#f5. Accessed June, 2014.

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http://www.ipcc.ch/publications_and_data/ar4/syr/. Accessed December, 2014.

San Joaquin Valley Air Pollution Control District. About the District.

http://www.valleyair.org/General_info/aboutdist.htm#Mission. Accessed June, 2014.

San Joaquin Valley Air Pollution Control District. District Policy, Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as Lead Agency, Pages 6, 7, 8, 9

Tulare County Climate Action Plan, pages 1, 15

Tulare County 2030 General Plan DEIR, pages 3.3-2 to 3.3-3

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