

San Joaquin Valley Unified Air Pollution Control District

E & J Gallo Winery

Project Number N-1110722

Livingston California Merced County

Initial Study and Draft Mitigated Negative Declaration

September 2011

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT **GOVERNING BOARD 2011**

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INITIAL STUDY AND DRAFT MITIGATED NEGATIVE DECLARATION

E & J Gallo Winery

(Project N-1110722)

September 2011

Lead Agency: San Joaquin Valley Air Pollution Control District

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Project Sponsor

and Location:

E & J Gallo Winery

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Project Contact: Kimberley Burns

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Daniel Barber Ph.D., Supervising Air Quality Specialist

A. INTRODUCTION

The San Joaquin Valley Unified Air Pollution Control District (District) has received an Authority to Construct (ATC) application from E & J Gallo Winery for the conversion of seven existing grape juice storage tanks (non-wine service) to red and white wine fermentation tanks.

B. PURPOSE AND AUTHORITY

The District has discretionary approval power over the Project via its Permits Required Rule (Rule 2010) and New and Modified Stationary Source Review Rule (Rule 2201). No other Agency is known to have discretionary approval over the Project. As such, the District is the public agency having principal responsibility for approving the Project and serves as Lead Agency; California Environmental Quality Act (CEQA) Guidelines 15367.

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The District adopted its *Environmental Review Guidelines* (ERG) in 2001. The ERG was prepared to comply with this requirement and is an internal document used to comply with CEQA.

The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.
- Identify the ways that environmental damage can be avoided or significantly reduced.
- Prevent significant, avoidable damage to the environment by requiring changes in projects through use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Under CEQA the Lead Agency is required to:

- Conduct preliminary reviews to determine if applications are subject to CEQA [CCR §15060].
- Conduct review to determine if projects are exempt from CEQA [CCR §15061].
- Prepare Initial Studies for projects that may have adverse environmental impacts [CCR §15063].

- Determine the significance of the environmental effects caused by the project [CCR §15064]
- Prepare Negative Declarations or Mitigated Negative Declarations for projects with no significant environmental impacts [CCR §15070].
- Prepare, or contract to prepare, EIRs for projects with significant environmental impacts [CCR §15081].
- Adopt reporting or monitoring programs for the changes made to projects or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment [PRC §21081.6 & CCR §15097].
- Comply with CEQA noticing and filing requirements.

Project Description

E & J Gallo Winery has proposed the conversion of seven existing grape juice storage tanks (non-wine service) to red and white wine fermentation tanks. This project is essentially a change in use of the existing tanks and does not involve any construction new tanks. However, fermentation of grapes results in increased emissions of volatile organic compounds (VOC) and is subject to District permit requirements.

Project Construction

Use of existing storage tanks as fermentation tanks may require some minor modifications to existing equipment, but no construction of new tanks will occur. Construction related activities are limited to the confines of the existing facility and are considered too small to affect overall project related environmental effects. Thus, a quantitative analysis of construction related impacts is not included in this assessment.

Process Description

E & J Gallo Winery produces both red and white table wines, as well as other specialty wine products, from the fermentation of grapes. During the "crush season," typically from late August to late November, both red and white grapes are received by truck and delivered to a crusher-stemmer which serves to crush the grapes and remove the stems. In the case of red wines, the resultant juice (termed "must" and containing the grape skins, pulp and seeds) is pumped to red wine fermentation tanks for fermentation, a batch process. The red wine fermentation tanks are specifically designed to ferment the must in contact with the skins and to allow the separation of the skins and seeds from the wine after fermentation. In the case of white wines, the must is sent to screens and presses for separation of grape skins and seeds prior to fermentation. After separation of the skins and seeds, the white must is transferred to a fermentation tank. White wine fermentation can be carried out in a tank without design provisions for solids separation since the skins and seeds have already been separated.

After transfer of the must or juice (for red or white wine) to the fermentation tank, the must or juice is inoculated with yeast which initiates the fermentation reactions. During fermentation, the yeast metabolizes the sugar in the grape juice, converting it to ethanol and carbon dioxide (CO₂) while releasing heat. Temperature is typically controlled by refrigeration, and is maintained at 45–65 °F for white wine fermentation and 70–95 °F for red wine fermentation. The sugar content of the fermentation mass is measured in °Brix (weight %) and is typically 22–26° for unfermented grape juice, dropping to 4° or less at the end of fermentation. Finished ethanol concentration is approximately 10 to 14 percent by volume. Batch fermentation requires 3-5 days per batch for red wine and 1-2 weeks per batch for white wine. VOC are emitted during the fermentation process along with the CO₂. The VOCs consist primarily of ethanol along with small quantities of other fermentation byproducts.

Following the completion of fermentation, white wine is transferred directly to storage tanks. Red wine is first directed to the presses for separation of solids and then routed to the storage tanks. All tanks in the winery typically operate as two separate emissions units: (1) a fermentation operation during which the tank is vented directly to the atmosphere to release the evolved CO₂ byproduct from the fermentation reaction; and (2) a storage operation during which the tank is closed to minimize contact with air and refrigerated to preserve the wine. Post-fermentation operations such as cold stabilization, racking, and filtration are conducted in the tanks, resulting in a number of inter-tank transfers during the period between the end of fermentation and bottling or bulk shipment. Storage operations are conducted year-round. VOC emissions occur primarily as a result of the inter-tank transfers which are necessitated by the post fermentation operations.

Project Location

The Project is located at 18000 West River Road, Livingston, California, which is the San Joaquin Valley Air Basin (see Figure 1).

General Plan Designation and Zoning

The project sites is currently designated in the Merced County as Agriculture and is currently zoned Agriculture (A-1).

Surrounding Land Uses and Setting

The area immediately surrounding the Project is designated as Agriculture and is currently zoned Agriculture (A-1).



The District has verified that the Project is not within 1,000 feet of the school's outer boundary. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to the Project.

Other Public Agencies Whose Approval Is Required

US Environmental Protection Agency (US EPA)

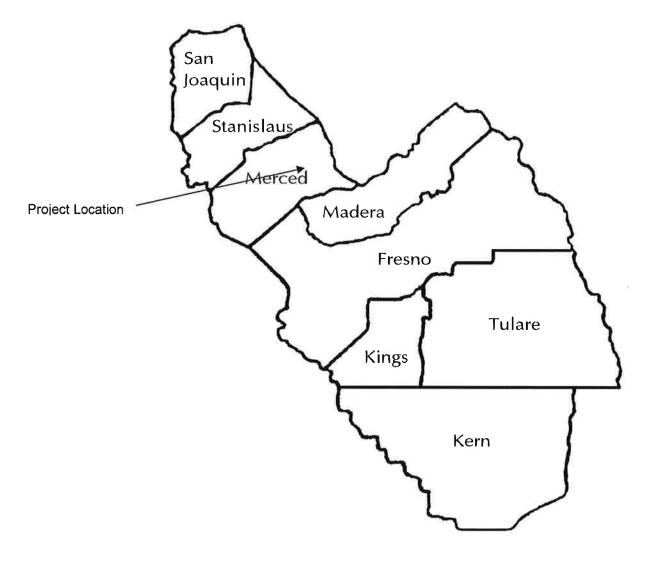
E & J Gallo Winery possesses a Title V permit. The proposed project is a Significant Modification to the Title V permit since the project triggers a Federal Major Modification under Rule 2201. The applicant has requested to issue the ATCs with a Certificate of Conformity (COC), which is the Environmental Protection Agency's (EPA's) 45-day review of the project prior to the issuance of the final ATCs.

C. DECISION TO PREPARE A MITIGATED NEGATIVE DECLARATION

Consistent with CEQA requirements the District prepared an Initial Study that evaluated potential environmental effects of the Project. The District has determined that air quality is the only environmental resource potentially affected by the conversion of existing storage tanks for use in wine fermentation. The District finds that with mitigation the Project will have a less than significant impact on the environment. The District concludes that a Mitigated Negative Declaration would be appropriate for the Project. Project design elements and mitigation measures that reduce the Project's impact on the environment would be enforced through District permit conditions and offset fees.

Figure 1: The San Joaquin Valley Air Basin

Regional Location within the SJVAB





San Joaquin Valley Unified Air Pollution Control District Initial Study and Final Mitigated Negative Declaration *E & J Gallo Winery N-1110722*

D. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by the proposed Project, involving at least one impact that is a "Potentially Significant Impact" or "Potentially Significant Unless Mitigated", as indicated by the checklist on the following pages. Agriculture and Forestry \boxtimes Air Quality Aesthetics Resources Biological Resources Cultural Resources Geology / Soils Greenhouse Gas Hazards & Hazardous Hydrology / Water **Emissions** Materials Quality Land Use / Planning Mineral Resources Noise Population / Housing Public Services Recreation Mandatory Findings of Transportation / Traffic Utilities / Service Systems Significance E. <u>DETERMINATION</u> I certify that the Project was independently reviewed and analyzed and that this document reflects the independent judgment of the District. I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. \boxtimes I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION has been prepared. П I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required. Signature: Date: _____ Printed name: <u>David Warner</u>

Title: Director of Permit Services

F. ENVIRONMENTAL IMPACT CHECKLIST

I.	AESTHETICS puld the Project:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
a)	Have a substantial adverse effect on a scenic vista?				Х
b)	Substantially damage scenic resources, including, but not limited to trees, rock, outcroppings, and historic buildings within a state scenic highway?				X
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?				Х
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X

Conclusion: There is no substantial evidence of record to support a conclusion that the Project would have a detrimental impact on environmental resources identified above (a-d).

Discussion: The Project is located within E & J Gallo Winery's existing boundaries and is consistent with current and surrounding land uses. The project consists of a change in use of existing wine storage tanks to include use of the tanks in the wine fermentation process. This change in use does not involve construction of new tanks or alteration of the existing facilities. Thus, there is no substantive change in existing conditions.

Mitigation: None required

Reference

II. AC	GRICULTURAL RESOURCES	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact		
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1197) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agricultural and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resource Board. Would the Project:							
a)					х		
b)					х		
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220 (g)), timberland (as defined by Public Resource Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 (g))?				x		
d)	Result in the loss of forest land or conversion of forest land to non-forest use?				х		
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				х		

Conclusion: There is no substantial evidence of record to support a conclusion that the Project would have a detrimental impact on environmental resources identified above (a-e).

Discussion: The Project is located within E & J Gallo Winery's existing boundaries and is consistent with current and surrounding land uses. The project consists of a change in use of existing wine storage tanks to include use of the tanks in the wine fermentation process. This change in use does not involve construction of new tanks or alteration of the existing facilities. Thus, there is no substantive change in existing conditions.

Mitigation: None required.

Reference

San Joaquin Valley Air Pollution Control District. June 2011 *Authority to Construct: Application Review*, Application No. N-1237-483-0 through -489-0, Project No. N-1110722. Available at San Joaquin Valley Air Pollution Control District, 1990 East Gettysburg Avenue, Fresno, CA 93611.

III. AIR Q	UALITY	Potentially Significant Impact	 Less Than Significant Impact	No Impact
	vailable, the significance criteria established control district may be relied upon to make the Project:		ty manageme	nt or air
	ict with or obstruct implementation of the cable air quality plan?			Х
subst	e any air quality standard or contribute antially to an existing or projected air y violation?		х	
increa Proje applic stand excee	It in a cumulatively considerable net ase of any criteria pollutant for which the ct region is non-attainment under an cable federal or state ambient air quality ard (including releasing emissions which ed quantitative thresholds for ozone irsors)?		х	
	se sensitive receptors to substantial ant concentrations?		Х	
1 '	re objectionable odors affecting a antial number of people?		х	

Air Quality Plans and Standards (a, b, c)

Conclusion: The Project, with the incorporation of mitigation measures, will have a less than significant impact on air quality.

Discussion: The District is tasked with implementing programs and regulations by the Federal Clean Air Act and the California Clean Air Act and has prepared plans to attain federal and state ambient air quality standards. The District has established thresholds of significance for criteria pollutant emissions, which are based on federal offset requirements for stationary sources. The District's thresholds of significance for determining whether project emissions would have a significant adverse impact on air quality are: 10 tons per year (tpy) reactive organic gases (ROG), which includes emissions of volatile organic compounds (VOC); 10 tpy oxides of nitrogen (NOx), and 15 tpy particulate matter smaller than 10 micrometers (PM10).

Stationary sources in the District are subject to some of the most stringent regulatory requirements in the nation. Emission reductions achieved through implementation of federal offset requirements are a major component of the District's air quality plans. For

that reason, projects with emissions below the thresholds of significance for criteria pollutants would be determined not to conflict or obstruct implementation of the District's air quality plans.

Project Details

E & J Gallo Winery has proposed the conversion of seven existing grape juice storage tanks (non-wine service) to red and white wine fermentation tanks. Conversion of existing wine storage tanks to a fermentation tank is a change in use of the tanks and does not involve any construction of new tanks or alteration of the existing tanks. However, fermentation of grapes results in emissions of volatile organic compounds (VOC) and is subject to District permit requirements.

Construction Emissions

Use of existing storage tanks as fermentation tanks may require some minor modifications to existing equipment, but no construction of new tanks will occur. Construction related activities are limited to the confines of the existing facility and are considered too small to affect overall project related environmental effects. Thus, a quantitative analysis of construction related impacts is not included in this assessment.

Operational Emissions

Mobile Source Emissions: The Project will be maintained by existing E & J Gallo Winery personnel and contractors. Therefore, the Project will not result in any new mobile source emissions.

Stationary Source Emissions: The Project consists of the conversion of seven existing grape juice storage tanks (non-wine service) to red and white wine fermentation tanks. The District has conducted an Engineering Evaluation (EE) for the project, incorporated herein by reference, which demonstrates that project related fugitive emissions would increase operational VOC emissions by 12.15 tons per year. E & J Gallo Winery is a major stationary source with a Title V permit, and is required to offset all project related increases in stationary source emissions. VOC offset requirements for this project, were calculated at an offset ratio of 1.5 to 1. As presented in Table 1 - Operational Emissions and Offset Requirements, E & J Gallo Winery will be required to surrender VOC emission reduction credits (ERCs) totaling 18.23 tons. This facility is an existing Major Source of VOC emissions and will remain a Major Source of VOC emissions as a result of this project.

Table 1 - Operational Emissions and Offset Requirements

Project Emissions	VOC (tons/year)
Stationary Source Emissions Increase	12.15
Offset Requirements	*18.23
Significance Threshold	10.00
Significant after Mitigation	No

^{*}Offset requirements for this project, were calculated at an offset ratio of 1.5 to 1

Air Quality Plans

Through surrendering ERCs, project emissions will be mitigated to below the District's Thresholds of Significance. Thus, the project does not conflict with the implementation strategy of the San Joaquin Valley Regional Air Quality Management Plans (2008 PM 2.5 Plan; 2007 8-Hour Ozone Plan; 2007 PM10 Maintenance Plan; 2006 PM10 SIP; 2004 1-Hour Ozone SIP; 2003 PM10 SIP).

The ERCs must be surrendered to the District prior to the commencement of operation of the equipment proposed under the ATC.

Air Quality Standards

Determination of whether project emissions would violate any ambient air quality standard is largely a function of air quality dispersion modeling. If project emissions would not exceed state and federal ambient air quality standards at the project's property boundaries, the project would be considered to not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Cumulative Impacts

By its very nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development. Future attainment of state and federal ambient air quality standards is a function of successful implementation of the District's attainment plans. Consequently, the District's application of thresholds of significance for criteria pollutants is relevant to the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality. If a project's emissions is less than the thresholds of significance for criteria pollutants the project would not be expected to result in a cumulatively considerable net increase of any criteria pollutant for which the District is in non-attainment under the applicable federal or state ambient air quality standards. As discussed above, Project emissions are below the District's thresholds of significance

for criteria pollutant emissions. Therefore, project related emissions would have a less than significant impact on air quality.

Mitigation:

AIR-1 – E & J Gallo Winery will surrender ERCs sufficient to fully offset operational emissions as required by District New Source Review (NSR) requirements.

Health Risk Impacts

Conclusion: The Project would not expose sensitive receptors to substantial pollutant concentrations.

Discussion: Under the Clean Air Act, toxic air contaminants (TACs) are airborne pollutants that may be expected to result in an increase in mortality or serious illness or which may pose a present or potential hazard to human health. Potential health impacts from TACs include long-term health effects such as cancer, birth defects, neurological damage, or genetic damage; or short-term affects such as eye watering, respiratory irritation, throat pain and headaches. TACs may also be referred to as hazardous air pollutants (HAPs). There are currently more than 900 substances classified by the US EPA and California Air Resources Board (ARB) as TACs. Air Quality problems occur when sources of TACs and sensitive receptors are located in proximity to one another.

TACs can be separated into carcinogens and non-carcinogens based on the nature of the physiological degradation associated with exposure to the pollutant. For regulatory purposes, carcinogens are assumed to have no safe threshold below which health impacts would not occur. Cancer risk is expressed as excess cancer cases per one million exposed individuals.

Non-carcinogens differ in that there is generally assumed to be a safe level of exposure below which no negative health impact would occur. These levels are determined on a pollutant-by-pollutant basis. Acute and chronic exposure to non-carcinogens is expressed by using a Hazard Index, which is the ratio of expected exposure levels to acceptable health-acceptable exposure levels.

The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly) was enacted in 1987, and requires stationary sources to report the type and quantities of certain substances routinely released into the air. The goals of AB 2588 are to collect emission data, to identify facilities having localized impacts, to ascertain risks to acceptable levels. AB 2588 requires air districts to establish the prioritization score threshold at which facilities are required to prepare a health risk assessment (HRA). In establishing priorities, an air district must consider potency, toxicity, quantity, and volume of hazardous materials released from the facility, the proximity of the facility to

potential receptors, and any other factors that the district determines may indicate that the facility may pose a significant risk.

In implementing its responsibilities under AB 2588, the District Governing Board adopted notification procedures, including prioritization score thresholds, for notifying the public of significant carcinogenic and non-carcinogenic health risks. The District concludes that use of the existing prioritization score thresholds to establish thresholds of significance under CCR §15064.7 is an appropriate and effective means of promoting consistency in significance determinations within the environmental review process. The District's thresholds of significance for determining whether project emissions would expose sensitive receptors to substantial pollutant concentrations are:

- Carcinogens: Probability of contracting cancer for the Maximally Exposed Individual (MEI) exceeds ten (10) in one million.
- Non-Carcinogens: Ground Level concentrations of non-carcinogenic TACs would result in a Hazard Index greater than one (1) for the MEI.

An HRA is not required for a project with a prioritization score of less than one (1).

The District has conducted and engineering evaluation of the project, which demonstrates that potential health risks would be below the District's threshold of significance. The District concludes that there is no substantial evidence of record to support a conclusion that the project would expose sensitive receptors to significant health risks.

Mitigation: None required.

Odor Impacts

Conclusion: The Project would not create objectionable odor affecting a substantial number of people.

Discussion: Odors can be very unpleasant leading to considerable distress among the public and often generating citizen complaints to local governments and the District. Any project with the potential to frequently expose members of the public to objectionable odors should be deemed to have a significant impact. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, there is no quantitative or formulaic methodologies to determine if potential odors would have a significant impact. Rather, projects must be assessed on a case-by-case basis.

The District's *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI) defines a significant odor impact as either more than one (1) confirmed complaint per year

averaged over a three year period or three (3) unconfirmed complaints per year averaged over a three year period. A review of the District's compliance complaint database revealed that there are no complaints received, in 2010, against E & J Gallo Winery. Therefore, the District concludes that there is no substantial evidence of record to support a conclusion that the project would create objectionable odors affecting a substantial number of people.

Mitigation: None required.

References

California Air Resources Board. *AB 2588 Air Toxics "Hot Spots" Program*. Website: http://www.arb.ca.gov/ab2588/ab2588.htm

Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI), January 2002. Website:

http://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI%20Jan%202002%20Rev.pdf

	BIOLOGICAL RESOURCES	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			·	x
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?				x

(Co	BIOLOGICAL RESOURCES ontinued) ould the Project:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	•	•		x
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				x
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				Х
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				x

Conclusion: There is no substantial evidence of record to support a conclusion that the Project would have a detrimental impact on environmental resources identified above (a-f).

Discussion: The Project is located within E & J Gallo Winery's existing boundaries and is consistent with current and surrounding land uses. The project consists of a change in use of existing wine storage tanks to include use of the tanks in the wine fermentation process. This change in use does not involve construction of new tanks or alteration of the existing facilities. Thus, there is no substantive change in existing conditions.

Mitigation: None required

Reference

San Joaquin Valley Air Pollution Control District. June 2011. *Authority to Construct: Application Review*, Application No. N-1237-483-0 through -489-0, Project No. N-1110722. Available at San Joaquin Valley Air Pollution Control District, 1990 East Gettysburg Avenue, Fresno, CA 93611

V.	CULTURAL RESOURCES Would the Project:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
a)	Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?			10	Х
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?				х
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				х
d)	Disturb any human remains, including those interred outside of formal cemeteries?				Х

Conclusion: There is no substantial evidence of record to support a conclusion that the Project would have a detrimental impact on environmental resources identified above (a-d).

Discussion: The Project is located within E & J Gallo Winery's existing boundaries and is consistent with current and surrounding land uses. The project consists of a change in use of existing wine storage tanks to include use of the tanks in the wine fermentation process. This change in use does not involve construction of new tanks or alteration of the existing facilities. Thus, there is no substantive change in existing conditions.

Mitigation: None required

Reference

VI.	GEOLOGY / SOILS Would the Project	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
(a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				х
	ii) Strong seismic ground shaking?			X	
	iii) Seismic-related ground failure, including liquefaction?				Х
	iv) Landslides?				X
b)	Result in substantial soil erosion or the loss of topsoil?				Х
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in onor off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				x
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				х
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X

Conclusion: There is no substantial evidence of record to support a conclusion that the Project would have a detrimental impact on environmental resources identified above (a-e).

Discussion: The Project is located within E & J Gallo Winery's existing boundaries and is consistent with current and surrounding land uses. The project consists of a change in use of existing wine storage tanks to include use of the tanks in the wine fermentation process. This change in use does not involve construction of new tanks or alteration of the existing facilities. Thus, there is no substantive change in existing conditions.

Mitigation: None required



Reference

San Joaquin Valley Air Pollution Control District. June 2011. *Authority to Construct: Application Review*, Application No. N-1237-483-0 through -489-0, Project No. N-1110722. Available at San Joaquin Valley Air Pollution Control District, 1990 East Gettysburg Avenue, Fresno, CA 93611

VII	. GREENHOUSE GAS EMISSIONS Would the Project:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b)	Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			х	

Conclusion: There is no substantial evidence of record to support a conclusion that the Project would have a detrimental impact on environmental resources identified above (a-b).

Discussion: The Project is located within E & J Gallo Winery's existing boundaries and is consistent with current and surrounding land uses. The project consists of a change in use of existing wine storage tanks to include use of the tanks in the wine fermentation process. This change in use does not involve construction of new tanks or alteration of the existing facilities. The proposed change in tank usage could increase facility wide wine fermentation and thus, increase emissions of carbon dioxide (CO₂). CO₂ is a greenhouse gas, however, as discussed below, these biogenic CO₂ emissions are considered to be carbon neutral. Thus, the project would not result in a substantive change in global greenhouse gases.

Terrestrial carbon sequestration is the process through which carbon dioxide (CO_2) from the atmosphere is absorbed by trees, plants and crops through photosynthesis, and stored as carbon in biomass (tree trunks, branches, foliage and roots) and soils. The term "sinks" is also used to refer to forests, croplands, and grazing lands, and their ability to sequester carbon. Agriculture and forestry activities can also release CO_2 to the atmosphere. Therefore, a carbon sink occurs when carbon sequestration is greater than carbon releases over some time period.

Grape vines sequester CO₂ from the atmosphere to produce biomass, including grapes. Much of the CO₂ sequestered in grapes is in the form of glucose, which has a molecular weight of 180.16 g mol⁻¹. CO₂ has a molecular weight of 44.01 g mol⁻¹. Fermentation yields two molecules of CO₂ per each molecule of glucose, resulting in a conversion ratio of 48.86 percent, by weight. While these emissions are real, the amounts of



carbon remaining sequestered in biomass and residual sugars in wine result in an overall long-term carbon balance which is considered to be a carbon sink.

Furthermore, CO_2 emissions resulting from fermentation processes and CO_2 emissions released when grape biomass decays at a future date originates from atmospheric CO_2 , which was absorbed by grape vines through photosynthesis. The, re-release of this short-term sequestered CO_2 into the atmosphere would not result in an overall increase in atmospheric CO_2 . Therefore, these biogenic CO_2 emissions are considered to be carbon neutral.

Mitigation: None required

References

VII	I. HAZARDS & HAZARDOUS MATERIALS Would the Project:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				х
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				x
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				Х
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				x

VIII. HAZARDS & HAZARDOUS MATERIALS (CONTINUED)		Potentially	Potentially Significant Impact	Less Than	
	Would the Project:	Significant Impact	Unless Mitigated	Significant Impact	No Impact
e)	For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area?				x
f)	For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area?				X
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				x

Conclusion: There is no substantial evidence of record to support a conclusion that the Project would have a detrimental impact on environmental resources identified above (a-h).

Discussion: The Project is located within E & J Gallo Winery's existing boundaries and is consistent with current and surrounding land uses. The project consists of a change in use of existing wine storage tanks to include use of the tanks in the wine fermentation process. This change in use does not involve construction of new tanks or alteration of the existing facilities. Thus, there is no substantive change in existing conditions.

Mitigation: None required

Reference

IX.	HYDROLOGY / WATER QUALITY Would the Project:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
a)	Violate any water quality standards or waste discharge requirements?				X
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				x
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?				x
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				x
e)	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?				x
f)	Otherwise substantially degrade water quality?				Х
g	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				х
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				х
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				х
j)	Inundation by seiche, tsunami, or mudflow				X

Conclusion: There is no substantial evidence of record to support a conclusion that the Project would have a detrimental impact on environmental resources identified above (a-j).

Discussion:

The Project is located within E & J Gallo Winery's existing boundaries and is consistent with current and surrounding land uses. The project consists of a change in use of existing wine storage tanks to include use of the tanks in the wine fermentation process. This change in use does not involve construction of new tanks or alteration of the existing facilities. The proposed change in tank usage would increase facility wide wine fermentation and thus, increase water usage and wastewater discharge.

Each tank will use an additional 9,000 gallons of groundwater per year (63,000 gallons total for seven tanks). The current 3-year, average groundwater draw for the facility is approximately 166 million gallons per year (MGY). Therefore, the increase in water demand for this project compared to the facility's current groundwater consumption is less than 0.04%. Based upon this incremental additional demand, a reduction of the production rate of pre-existing nearby wells is not expected.

Wastewater accumulates in a sump located on site and is systematically land applied in conformance with Waste Discharge Requirements (WDR) permit 91-135 issued by the Central Valley Regional Water Quality Control Board. The permit allows for 4.5 million gallons per day (30-day average, dry weather). Currently, the 3-year average, monthly quantity of wastewater generated and land applied ranges from 0.2 -1.8 million gallons per day; therefore, this incremental additional wastewater is not expected to create any adverse issues. Additionally, once wastewater has been land applied, crops are grown to uptake wastes. Therefore, there will be no significant impacts to groundwater quality or existing drainage patterns are not anticipated as a result of this project.

Wastewater, including process and storm water is land applied per the WDR permit. All discharges will remain on site, on the existing fields pursuant to the WDR and there will be no change to existing drainage patterns. Furthermore, there is no change to the impervious surfaces associated with this project and therefore, no change in quantity of storm water discharged to the fields.

In the past four years, Gallo has implemented water conservation measures resulting in an annual volumetric reduction of 134,000,000 gallons (a reduction of 46.8%). These measures included recycling of sanitation water, reduction in boiler blow-down, general employee awareness and engagement, use of low-flow high pressure nozzles for general cleanup, and various equipment improvements.

Mitigation: None required

Reference

San Joaquin Valley Air Pollution Control District. June 2011. *Authority to Construct: Application Review*, Application No. N-1237-483-0 through -489-0, Project No. N-1110722. Available at San Joaquin Valley Air Pollution Control District, 1990 East Gettysburg Avenue, Fresno, CA 93611

E & J Gallo. August 2011. Electronic Correspondence; Lupe Munoz

	ND USE / PLANNING ould the Project:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
a)	Physically divide an established community?				X
b)	policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				x
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?				x

Conclusion: There is no substantial evidence of record to support a conclusion that the Project would have a detrimental impact on environmental resources identified above (a-c).

Discussion: The Project is located within E & J Gallo Winery's existing boundaries and is consistent with current and surrounding land uses. The project consists of a change in use of existing wine storage tanks to include use of the tanks in the wine fermentation process. This change in use does not involve construction of new tanks or alteration of the existing facilities. Thus, there is no substantive change in existing conditions.

Mitigation: None required

Reference

	NERAL RESOURCES	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b)					х

Conclusion: There is no substantial evidence of record to support a conclusion that the Project would have a detrimental impact on environmental resources identified above (a-b).

Discussion: The Project is located within E & J Gallo Winery's existing boundaries and is consistent with current and surrounding land uses. The project consists of a change in use of existing wine storage tanks to include use of the tanks in the wine fermentation process. This change in use does not involve construction of new tanks or alteration of the existing facilities. Thus, there is no substantive change in existing conditions.

Mitigation: None required

<u>Reference</u>

XII. NO	DISE ould the Project:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
a)	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		W.		X
b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				Х
C)	A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?				X
d)	A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?				X
e)	For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?				x
f)	For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?				х

Conclusion: There is no substantial evidence of record to support a conclusion that the Project would have a detrimental impact on environmental resources identified above (a-f).

Discussion: The Project is located within E & J Gallo Winery's existing boundaries and is consistent with current and surrounding land uses. The project consists of a change in use of existing wine storage tanks to include use of the tanks in the wine fermentation process. This change in use does not involve construction of new tanks or alteration of the existing facilities. Thus, there is no substantive change in existing conditions.

Mitigation: None required

<u>Reference</u>

	OPULATION / HOUSING	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
a)	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				x
b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				Х
c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				Х

Conclusion: There is no substantial evidence of record to support a conclusion that the Project would have a detrimental impact on environmental resources identified above (a-c).

Discussion: The Project is located within E & J Gallo Winery's existing boundaries and is consistent with current and surrounding land uses. The project consists of a change in use of existing wine storage tanks to include use of the tanks in the wine fermentation process. This change in use does not involve construction of new tanks or alteration of the existing facilities. Thus, there is no substantive change in existing conditions.

Mitigation: None required

Reference

XIV	. PUBLIC SERVICES	Potentially	Potentially Significant Impact	Less Than	
	Would the Project:	Significant Impact	Unless Mitigated	Significant Impact	No Impact
a)	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i)	Fire protection?				X
ii)	Police protection?				X
iii)	Schools?				Х
iv)	Parks?				Х
V)	Other public facilities?				Х

Conclusion: There is no substantial evidence of record to support a conclusion that the Project would have a detrimental impact on environmental resources identified above.

Discussion: The Project is located within E & J Gallo Winery's existing boundaries and is consistent with current and surrounding land uses. The project consists of a change in use of existing wine storage tanks to include use of the tanks in the wine fermentation process. This change in use does not involve construction of new tanks or alteration of the existing facilities. Thus, there is no substantive change in existing conditions.

Mitigation: None required

Reference

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XV. RECREATION Would the Project:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significan t Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				x
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				x

Conclusion: There is no substantial evidence of record to support a conclusion that the Project would have a detrimental impact on environmental resources identified above (a-b).

Discussion: The Project is located within E & J Gallo Winery's existing boundaries and is consistent with current and surrounding land uses. The project consists of a change in use of existing wine storage tanks to include use of the tanks in the wine fermentation process. This change in use does not involve construction of new tanks or alteration of the existing facilities. Thus, there is no substantive change in existing conditions.

Mitigation: None required

Reference

	RANSPORTATION / TRAFFIC	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
a)	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation systems, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				X
b)	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				X
c)					x
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				x
e)					Х
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				х

Conclusion: There is no substantial evidence of record to support a conclusion that the Project would have a detrimental impact on environmental resources identified above (a-f).

Discussion: The Project is located within E & J Gallo Winery's existing boundaries and is consistent with current and surrounding land uses. The project consists of a change

in use of existing wine storage tanks to include use of the tanks in the wine fermentation process. This change in use does not involve construction of new tanks or alteration of the existing facilities. The proposed change in tank usage could increase facility wide wine fermentation and thus, increase truck traffic associated with delivery of grapes for processing and shipment of finished product (wine). The project is anticipated to increase heavy-duty truck trips by 700 trips per year. This increase of 700 trips per year increase (daily average increase of 2 additional trucks per day) will not degrade the service of public roads, in particular, the main road leading to the winery, West Vineyard Avenue. Currently, the daily heavy duty truck traffic on this road ranges from 189-939 trucks. Therefore, the addition of less than 2 additional trucks on will not have an adverse impact

Mitigation: None required

Reference

E & J Gallo. August 2011. Electronic Correspondence; Lupe Munoz

	JTILITIES / SERVICE SYSTEMS	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				х
b)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				x
c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				х

(Contin	Utilities / Service Systems ued) ould the Project:	Potentially Significant	Potentially Significant Impact Unless	Less Than Significant	No
d)	Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?	Impact	Mitigated	Impact	Impact X
e)	Result in a determination by the wastewater treatment provider that serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?				x
f)	Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?				x
g)	Comply with federal, state, and local statutes and regulations related to solid waste?				x

Wastewater and Storm Water Facilities

Conclusion: The Project would not exceed wastewater treatment requirements or require the construction of new wastewater or storm water facilities. The Project will have sufficient water supplies and new or expanded entitlements are not required

Discussion: The Project is located within E & J Gallo Winery's existing boundaries and is consistent with current and surrounding land uses. The project consists of a change in use of existing wine storage tanks to include use of the tanks in the wine fermentation process. This change in use does not involve construction or alteration of the existing facilities. Thus, there is no change in existing conditions. Therefore, the District concludes that there is no substantial evidence of record to support a conclusion that the Project would have a detrimental impact on environmental resources identified above (a-g).

Mitigation: None required

Reference

San Joaquin Valley Air Pollution Control District. June 2011. *Authority to Construct: Application Review*, Application No. N-1237-483-0 through -489-0, Project No. N-1110722. Available at San Joaquin Valley Air Pollution Control District, 1990 East Gettysburg Avenue, Fresno, CA 93611

(VIII. MANDATORY FINDINGS OF BIGNIFICANCE Would the Project	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
a) Does the Project have the potent to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of major periods of California history or prehistory?	e or the			X
b) Does the Project have impacts the are individually limited, but cumulatively considerable? ("Cumulatively Considerable" means that the incremental effect of a Project are considerable whe viewed in connection with the effects of past Projects, the effect of other current Projects, and the effects of probable future Projects.	ets en ets			x
c) Does the Project have environmental effects, which will cause substantial adverse effect on human beings, either directly indirectly?	s			х

Impacts on the Environment

Conclusion: The Project will have a less than significant impact on the environment.

Discussion: The Project is located within E & J Gallo Winery's existing boundaries and is consistent with current and surrounding land uses. The project consists of a change in use of existing wine storage tanks to include use of the tanks in the wine fermentation process. This change in use does not involve construction or alteration of the existing

facilities. Thus, there is no change in existing conditions. Therefore, the District concludes that there is no substantial evidence of record to support a conclusion that the Project would have a detrimental impact on environmental resources identified above (a-c).

Mitigation: Mitigation Measure: **AIR-1** – E & J Gallo Winery will surrender ERCs sufficient to fully offset operational emissions as required by District New Source Review (NSR) requirements.

Reference