

**California Regional Water Quality Control Board  
Central Valley Region**

**INITIAL STUDY AND  
DRAFT MITIGATED NEGATIVE  
DECLARATION**

for

Waiver of Waste Discharge Requirements for  
Small Food Processors, Wineries, and Related Agricultural Processors  
within the Central Valley Region

California Regional Water Quality Control Board  
Central Valley Region  
Rancho Cordova, California  
31 October 2014

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# INITIAL STUDY / MITIGATED NEGATIVE DECLARATION ANALYSIS

## WAIVER OF WASTE DISCHARGE REQUIREMENTS FOR SMALL FOOD PROCESSORS, WINERIES, AND RELATED AGRICULTURAL PROCESSORS WITHIN THE CENTRAL VALLEY REGION

### 1. INTRODUCTION

#### 1.1 Project Overview

The project is the adoption of a General Conditional Waiver of Waste Discharge Requirements (Conditional Waiver) by the Central Valley Regional Water Quality Control Board (Central Valley Water Board or Board). The proposed Conditional Waiver would regulate the discharge of wastewater and residual solids discharges from small food processing operations, small wineries, and certain agricultural operations (such as nut hulling and seed processing) throughout the Central Valley Region. The Conditional Waiver would authorize regulated entities to irrigate crops or landscaped areas with up to 1,000,000 gallons of wastewater per year, provided that the characteristics of the wastewater meet criteria specified in the Conditional Waiver. The Conditional Waiver would also regulate the use of the residual solids as a soil amendment on cropped or landscaped areas owned by the discharger.

The Conditional Waiver will impose consistent requirements throughout the Central Valley Region and will ensure that discharges associated with the regulated industries will comply with all applicable plans and policies of the Central Valley Water Board and the State Water Resources Control Board (State Water Board). If managed appropriately, the discharge of wastewater and residual solids to land by small food processors poses a low threat to groundwater quality. In order to qualify for coverage under the Conditional Waiver, the discharges must meet specified enrollment conditions designed to mitigate any potential threat to the environment. Furthermore, the Conditional Waiver imposes a mitigation monitoring program designed to ensure that all applicable mitigation measures are fully implemented by regulated entities.

#### 1.2 Regulatory Overview

The Central Valley Water Board regulates discharges of waste that threaten to affect surface and ground waters within the Central Valley Region primarily by prescribing waste discharge requirements (WDRs) or by conditionally waiving such requirements, when such a waiver is consistent with any applicable state or regional water quality control plan and is in the public interest. (Wat. Code, §§ 13263, 13269.) The Central Valley Water Board has adopted two Basin Plans, one for the Sacramento River and San Joaquin River Basins and one for the Tulare Lake Basin.

Waivers may be adopted for specific discharges or for broad types of discharges. (Wat. Code, § 13269.) When there are numerous individual discharges containing similar waste constituents that are managed using similar methods, a general waiver for that type of discharge can more efficiently address the numerous discharges. A waiver may not exceed five years in duration, but may be renewed by the state board or a regional board. (Wat. Code, § 13269, subd. (b).)

### **1.3 Purpose**

The purpose of this Initial Study is to evaluate the potential environmental effects that would occur as a result of the Board's adoption of the proposed Conditional Waiver. This Initial Study has been prepared in accordance with Public Resources Code section 21000 et seq. and California Code of Regulations, title 14, section 15000 et seq. An initial study of a project is conducted by the lead agency to determine if a project may have a significant effect on the environment. (Cal. Code Regs. tit. 14, § 15063.) An environmental impact report (EIR) must be prepared if there is substantial evidence (including the results of an initial study) that a project may have a significant effect on the environment. (Cal. Code Regs. tit. 14, § 15064, subd. (a).) A negative declaration or mitigated negative declaration may be prepared if the lead agency determines that the project would have no potentially significant impacts or that revisions made to the project mitigate the potentially significant impacts to a less than significant level. (Cal. Code Regs. tit. 14, § 15070.)

### **1.4 Lead Agency**

Under CEQA, the lead agency is the public agency with primary responsibility over the proposed project. (Cal. Code Regs. tit. 14, § 15050.) The Central Valley Water Board is the lead agency under CEQA for this Project because it is the agency that is proposing to adopt the Conditional Waiver. However, the Central Valley Water Board has no land use planning authority and cannot itself authorize construction or operation of the facilities that will generate the waste subject to regulation under the waiver. Such authorizations fall outside the scope of this analysis; this Initial Study focuses on the significant effects that could occur as a result of the discharge of waste under the conditions described in the Conditional Waiver.

### **1.5 Responsible and Trustee Agencies**

Wineries, food processing facilities, and agricultural commodity processing activities such as nut hulling and seed processing may be subject to local agency approvals, Use Permits, and/or building permits issued by the local planning department. Other permits may be required from the local air pollution control district for construction and operation of boilers or other equipment that generates regulated air emissions and from the County Environmental Health Department for onsite wastewater treatment systems (OWTS) used for disposal of domestic wastewater.

### **1.6 Public Review and Comment**

This Initial Study is available for a 30-day public review period beginning on 31 October 2014 and ending on 1 December 2014. Written comments may be submitted by 1 December 2014 at 5:00 p.m. to:

Anne Olson  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Drive, Suite 200  
Rancho Cordova, CA 95670

Comment letters may also be submitted by email to [aolson@waterboards.ca.gov](mailto:aolson@waterboards.ca.gov). For email submittals, please indicate in the subject line:

**“Comment Letter- Food Processor Waiver Initial Study/MND”**

## **2. REGULATORY SETTING**

### **2.1 Statutory Authority**

California's Porter-Cologne Water Quality Control Act (Porter-Cologne Act) established the State Water Board and divided the state into nine regional basins, of which the Central Valley Water Board is one. (Wat. Code, § 13200.) The State Water Board is the "principle state agency with the primary responsibility for the coordination and the control of water quality" in California. (Wat. Code, § 13201.) The Porter-Cologne Act authorizes the regional water boards, including the Central Valley Water Board, to prescribe waste discharge requirements or to conditionally waive such requirements, when such a waiver is consistent with any applicable state or regional water quality control plan and is in the public interest. (Wat. Code, §§ 13263, 13269.) State waters within the jurisdiction of the State and Regional Water Boards are defined as any surface water or groundwater, including saline waters, within the boundary of the state. (Wat. Code, § 13050.)

Each regional board is required to formulate and adopt water quality control plans for all areas within the region. (Wat. Code, § 13240.) The Central Valley Water Board has adopted two Basin Plans, one for the Sacramento River and San Joaquin River Basins and one for the Tulare Lake Basin (collectively referred to as the "Basin Plans").

### **2.2 Antidegradation Policy**

In 1968, the State Water Board adopted Resolution 68-16 which states:

- 1. Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.*
- 2. Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.*

The Implementation Plans of the Basin Plans establish procedures for the implementation of the antidegradation directives of the State Water Board. Any activity that results in the degradation of the quality of waters of the state is required to employ best practicable treatment or control of the discharge necessary to assure that pollution or nuisance will not occur and the highest quality of water will be maintained consistent with maximum benefit to the people of the state.

## **3. PROJECT DESCRIPTION**

### **3.1 Background**

In July 2003, the Central Valley Water Board adopted a waiver of Waste Discharge Requirements for small food processors and wineries (Resolution R5-2003-0106) to provide a streamlined permitting process for numerous small food processing facilities and wineries that had begun to proliferate within the Central Valley Region. The waiver was well received by the

industry, and 97 facilities (mostly wineries) applied for and received a Notice of Applicability. The waiver expired in July 2008.

In October 2009, the Central Valley Water Board adopted a new waiver to replace the expired one (Order R5-2009-0097). The second waiver contained the same eligibility requirements and discharge conditions as the previous waiver, but included an application form to capture the technical details needed to determine eligibility and prepare a NOA. It also included a simple form for the annual monitoring report. The Board's Executive Officer issued 74 Notices of Applicability under the 2009 waiver. Most of the facilities covered were wineries, but there has been an increase in other types of food processing facilities, such as small olive oil mills. Additionally, the Central Valley has seen an increase in the number of seed processors and nut hullers, which are not food processors, but which generate wastes that are similar in character to the wastes that are produced by the food processing industry. The 2009 waiver will expire on 8 October 2014, and staff of the Central Valley Water Board is proposing to renew the waiver and expand its applicability to larger discharges and certain wastewater storage practices common to nut hullers.

### **3.2 Proposed Conditional Waiver**

The proposed Conditional Waiver would be applicable to more dischargers and would include a tiered regulatory approach that matches the fee, permit application complexity, discharge requirements, and monitoring requirements to the size of the discharge and the potential threat that the discharge poses to water quality. Specifically, under the proposed Conditional Waiver, the smallest discharges that pose the lowest threat would require the least regulatory oversight by the Central Valley Water Board to determine compliance, and would consequently have the lowest fee and would require little or no monitoring. Conversely, under the proposed Conditional Waiver, larger and/or more complex discharges would pay a higher fee and more comprehensive monitoring requirements would be imposed by the Board.

The proposed Conditional Waiver categories and tiers would accomplish three objectives:

- Provide a no-fee regulatory system for discharges that pose essentially no threat to water quality – those that discharge no more than 10,000 gallons of wastewater and associated residual solids per year.
- Expand the applicability of the waiver to provide regulatory coverage for larger facilities by increasing the annual wastewater flow limit to 1,000,000 million gallons of wastewater and associated residual solids per year, provided that the water and waste constituent loadings are consistent with the requirements of previous waivers on a per-acre basis.
- Expand the applicability of the waiver to seasonal nut hulling operations that use shallow, unlined ponds to temporarily store wash water prior to land application. Use of such ponds would be allowed only during the harvest season (typically August through December).

In addition to limited land discharges of wastewater and residual solids, the 2009 waiver also regulated the use of tanks to store wastewater for offsite disposal at permitted wastewater treatment facilities. Since the wastewater facilities themselves are already permitted, the holding and hauling of wastewater does not constitute a discharge of waste that could affect the quality of waters of the state and thus is not subject to regulation by the Central Valley Water Board. This category of operations is being removed from the waiver.

### 3.3 Waiver Basis and Waste Character

The Central Valley Water Board is proposing to regulate small wineries, food processors and related agricultural processors under a Conditional Waiver because published references that describe best management practices for land discharge to minimize the threat to water quality<sup>1,2</sup> have proven to be effective at regulating the typical wastewater generated by these industries.

Furthermore, the land application of food processing wastes is a common practice in the Central Valley Region because the facilities that generate food processing or similar wastes are often located in areas that are not served by municipal sewer systems, and land application is often the least costly method of disposal. Land application provides treatment of the organic portion of the waste and has the additional benefits of recycling water, low cost organic soil amendment and low cost organic crop fertilization. In its years of experience dealing with the land application of these wastes, the Central Valley Water Board has not seen any significant groundwater or surface water degradation caused by these discharges when appropriate best management practices are employed to minimize the threat posed by these wastes.

The liquid and solid waste streams that would be regulated under the proposed Conditional Waiver are similar in chemical character

- They may contain high concentrations of biodegradable organic matter (measured as biochemical oxygen demand or BOD) on the order of 1,000 to 3,000 mg/L.
- They may contain high concentrations of nitrogen on the order of 100 mg/L. Initially most of the nitrogen is in organic form, but much of that will readily convert to ammonia and then nitrate when adequate oxygen is present. This is the case with a well-managed land application system.
- They may contain other salts that were taken up by the crop from the soil and irrigation water used to grow the crop. These typically include sodium, chloride, potassium, phosphorus, carbonate, sulfate, and bicarbonate. Some additional salinity may be added by processing equipment cleaning and sanitation solutions. In order to differentiate between true salts and dissolved organic matter, fixed dissolved solids (FDS) is used as the best salinity indicator for wastewaters with significant BOD.
- They may contain minor amounts of other cleaning solution chemicals, but are unlikely to significant concentrations of toxic constituents.

The characteristics of food processing residual solids vary greatly depending on the commodity and the nature of the processing operation, and there is little information available to quantify the organic matter and nitrogen content for the various types of residual solids. The following table provides a qualitative description of the most common food processing residuals.

| Process and Residual Solids Type | Moisture Content | Carbon to Nitrogen Ratio <sup>1</sup> | Relative Putrescibility <sup>2</sup> |
|----------------------------------|------------------|---------------------------------------|--------------------------------------|
| Winery                           |                  |                                       |                                      |
| Pomace (leaves, stems, skins)    | Low              | High                                  | Low                                  |
| Lees (settled solids)            | High             | Moderate                              | High                                 |
| Cannery (culls, screenings)      | High             | Moderate                              | High                                 |

<sup>1</sup> Manual of Good Practice for Land Application of Food Processing/Rinse Water, California League of Food Processors, 2007.

<sup>2</sup> Draft Sustainable Winery Practices for Process Water Management, Wine Institute, 2007.

| Process and Residual Solids Type   | Moisture Content | Carbon to Nitrogen Ratio <sup>1</sup> | Relative Putrescibility <sup>2</sup> |
|------------------------------------|------------------|---------------------------------------|--------------------------------------|
| Olive Oil Processor (olive pulp)   | High             | Moderate                              | High                                 |
| Nut Huller (nut hulls)             | Moderate         | High                                  | Low                                  |
| Seed Processor (fruit pulp, skins) | High             | Moderate                              | High                                 |

<sup>1</sup> High carbon to nitrogen ratio (C:N) is associated with slower rates of biodegradation and mineralization of organic nitrogen. When combined with low moisture content, high C:N results in a low rate of decay, which results in low nuisance potential and slow conversion of organic nitrogen to nitrate.

<sup>2</sup> Putrescibility is a relative measure of the rate of biodegradation, which governs the potential for reducing conditions and nuisance conditions (odor and flies). It is usually associated with high moisture content and/or larger particle size, which restricts the transfer of atmospheric oxygen into the waste mass.

If the discharge of these wastes to land is not properly managed, it could cause a nuisance due to odors and insects, and could pose a significant threat to water quality. Specifically:

- If BOD and/or organic matter loading rates *on the day of application* are not controlled by applying the waste evenly over adequately sized land application areas, the waste may undergo rapid decomposition that causes odors and attracts insects such as flies. High BOD *average daily* loading rates, which can occur as a result of too-frequent wastewater application, may also deplete oxygen levels in the underlying soil and may release naturally occurring iron, manganese, and/or arsenic from the soil which can then travel to groundwater with percolating water.
- If nitrogen from the waste in combination with other sources (such as fertilizer, compost, and manure) is applied at rates that exceed the needs of the crops or vegetation grown in the land application area, excess nitrate can leach to groundwater and potentially impact its beneficial uses.
- Most salinity constituents cannot be taken up by plants. Therefore, even irrigation with relatively low salinity water will lead to some level of water quality degradation due to evapoconcentration of salts. Generally this effect is seen throughout the Central Valley Region, with the effect being more pronounced in agricultural areas with low annual rainfall. Using relatively saltier wastewater as the sole source of irrigation water will increase the level of water quality degradation, but this can be minimized by spreading the wastewater over a large enough area so that a significant amount of higher quality irrigation water is needed to sustain the crops or vegetation grown.

Sections 3.4 through 3.6 describe how the proposed Conditional Waiver is structured in terms of regulatory tiers; how the proposed regulatory tiers would limit and control waste constituent loading rates; and the other specific requirements that will reduce the threats of nuisance conditions and water quality impacts to less than significant.

### 3.4 Proposed Waiver Tiers

The 2009 Waiver allowed the discharge of up to 100,000 gallons of process wastewater per year to irrigate crops or landscaped areas on land owned by the discharger, along with the land application of the associated residual solids, provided that the enrollees complied with certain conditions that mandated that best management practices were employed. The 2009 Waiver did not allow the land application of high salinity waste streams, such as those associated with

equipment cleaning/sanitation, boilers, water softeners, or reverse osmosis water purification systems.

Dischargers enrolled under the 2009 waiver were required to submit a simple annual monitoring report that included an estimate of the volume of wastewater that was applied over the previous year, the methods by which this wastewater was applied, the crops/vegetation grown in the land application areas, and a certification that enrollees would sign, under penalty of perjury, that they complied with the conditions of the waiver.

The proposed Conditional Waiver would set stricter requirements on discharges regulated under the Conditional Waiver, and would allow larger amounts of wastewater to be used to irrigate acreage under the control of the enrollees. There are three tiers of dischargers under the proposed Conditional Waiver; Tiers 1 and 2 are substantially similar to categories that existed under the 2009 Waiver, while Tier 3 is new. The tiers are categorized as follows:

**Tier 1:** is a continuation of the 2009 waiver. It would allow land application of a very small volume of wastewater (less than 10,000 gallons per year) and associated residual solids. Wastewater and residual solids must be beneficially reused on crops and/or landscaped areas at rates consistent with nutrient demand and water needs. Enrollees regulated under Tier 1 would be required to submit a simple form-based annual monitoring report to certify compliance with the waiver conditions, and no fee would be due. Applicants for Tier 1 waiver coverage would submit a simple Notice of Intent form and a site plan, and no application fee would be required. The Board would issue a Notice of Applicability letter to confirm enrollment under Tier 1.

**Tier 2:** Enrollees that are considered “Tier 2” dischargers represent a very low threat to water quality, provided that best management practices are implemented. Tier 1 dischargers may apply up to 100,000 gallons of wastewater per year along with associated residual solids. Wastewater and residual solids must be beneficially reused on crops and/or landscaped areas at rates consistent with nutrient demand and water needs. Enrollees regulated under Tier 1 would be required to submit a simple form-based annual monitoring report to demonstrate compliance with the waiver conditions. Applicants for Tier 2 waiver coverage would submit a simple Report of Waste Discharge and a one-time application fee. The Board would issue a Notice of Applicability letter to confirm enrollment under Tier 2.

**Tier 3:** Enrollees that are considered “Tier 3” dischargers represent a low threat to water quality, provided that best management practices are implemented. Therefore, more detailed requirements apply to Tier 3 discharges. Tier 1 dischargers may apply up to 1,000,000 gallons of wastewater per year along with the associated residual solids. Wastewater and residual solids must be beneficially reused on crops and/or landscaped areas at rates consistent with nutrient demand and water needs. Tier 3 would require a minimum land application area 1 acre per 100,000 gallons of wastewater land applied per year. Enrollees regulated under Tier 1 would be required to submit a form-based annual monitoring report would to demonstrate compliance with the waiver conditions. Applicants for Tier 3 waiver coverage would submit a simple Report of Waste Discharge, an application fee that will serve as the first annual fee, and annual fees every year thereafter. The Board would issue a Notice of Applicability letter to confirm enrollment under Tier 3.

### 3.5 Expected Waste Constituent Loading Rates

Tier 1 and Tier 2 dischargers are not expected to exceed the hydraulic or nutrient loading capacity of the lands that the wastewater is applied to, because the volumes of wastewater that are discharged are relatively small and because the proposed Conditional Waiver prohibits the discharge of high-strength wastewater. However, even though the discharge of high-strength wastewater is prohibited under Tier 3 of the proposed Conditional Waiver, Tier 3 dischargers might still represent a threat to water quality if they do not apply the wastewater to sufficient acreage to prevent hydraulic overloading. Based on typical winery and food processing wastewater character, the hydraulic and waste constituent mass loadings that would be allowed under Tier 3, are provided in the table below.

|                                     |           |                          |
|-------------------------------------|-----------|--------------------------|
| <b>Annual Wastewater Volume</b>     | 1,000,000 | gallons/year             |
| <b>Land Application Area</b>        | 1         | acre per 100,000 gallons |
| <b>Wastewater Hydraulic Loading</b> | 3.7       | inches/year              |
| <b>Constituent Concentrations:</b>  |           |                          |
| Biochemical Oxygen Demand (BOD)     | 2,000     | mg/L                     |
| Fixed Dissolved Solids (FDS)        | 1,000     | mg/L                     |
| Total Nitrogen                      | 100       | mg/L                     |
| <b>Wastewater Mass Loading:</b>     |           |                          |
| BOD                                 | 1,700     | lb/ac/year               |
| FDS                                 | 830       | lb/ac/year               |
| Total Nitrogen                      | 83        | lb/ac/year               |

For wastewater discharges only:

- The maximum allowable hydraulic wastewater loading of 3.7 inches per year would require significant supplemental irrigation water to sustain any crop, including xeriscape landscaping. Estimated annualized dilution ratios for supplemental irrigation water would vary widely, but are estimated to be 4:1 (minimum) to 20:1 (maximum). Even if the maximum allowed volume is generated and land applied over a short processing season of three months, the wastewater hydraulic loading would be trivial (about 1.2 inches per month).
- The estimated maximum annual BOD loading rate would be high enough to cause nuisance and or temporary reducing conditions in surficial soils if it were applied all at one time to poorly drained soils. However, it is estimated that wastewater applications would typically be divided into at least four irrigation events at least two weeks apart, which would result in a maximum daily BOD loading of 420 lb/ac/day and an irrigation cycle average BOD loading of 30 lb/ac/day. These rates would put the discharge in California League of Food Processors (CLFP) Risk Category 1, which CLFP describes as a “de minimus” loading rate that is indistinguishable from common agronomic conditions when the load is evenly distributed across the land application area<sup>1</sup>.
- The estimated maximum FDS loading rate is lower than most food processing discharges regulated under individual WDRs and is roughly equivalent to the FDS load

associated with applying 9.2 inches of high quality irrigation water with a TDS concentration of 400 mg/L.

- The estimated annual nitrogen loading is substantially lower than the requirements of most crops and typical landscaped areas with the possible exception of mature xeriscape and mulched native plantings.

Land application of residual solids would add to the BOD and nitrogen loadings discussed above. Non-putrescible solids would continue to be subject to the requirement to use them at agronomic rates and in accordance with best management practices. Additionally, the proposed Conditional Waiver would require that enrollees evenly apply putrescible residual solids at a rate that does not exceed the agronomic rate for nitrogen or two inches, whichever is less. The proposed Conditional Waiver would also continue the discharge area setbacks imposed by the 2009 Waiver.

A new feature of the proposed Conditional Waiver is that it would allow short-term seasonal use of unlined wastewater storage ponds for nut hulling operations. The proposed Conditional Waiver would impose stringent limits in the form of Conditions of Discharge that are designed to ensure that any ponds do not pose a significant threat to water quality.

### **3.6 Conditions of Discharge**

The proposed Conditional Waiver includes certain requirements to ensure that the discharges that are regulated under the Conditional Waiver are substantially similar in chemical character (i.e., no unusual or high-salinity wastes would be allowed to be discharged under the Conditional Waiver). The proposed Conditional Waiver also imposes conditions to prevent nuisance odors and unreasonable degradation of water quality, including an absolute prohibition on discharges of waste to surface waters.

The combination of prohibitions and conditions will ensure that all of the potentially-significant effects upon the environment due to the discharge of wastewater and residual solids will not have a significant effect on the environment. These prohibitions and conditions are discussed in more detail below. The proposed Conditional Waiver also will impose monitoring requirements designed to ensure that these mitigation measures are fully implemented by the enrollees; the mitigation monitoring program/monitoring and reporting program requires that enrollees submit annual reports to the Central Valley Water Board so that Board technical staff will be able to evaluate the effectiveness of the mitigation measures and to evaluate overall compliance with the proposed Conditional Waiver.

The following would be prohibited under the proposed Conditional Waiver:

1. Discharge of wastewater and residual solids associated with slaughterhouses, other meat processing operations, and pistachio hulling operations.
2. Discharge of stillage, water softener regeneration brine, reverse osmosis brine, boiler blowdown, and other high salinity wastes.
3. Discharges of process wastewater and residual solids to septic systems.
4. The use of ponds for wastewater treatment, storage, or disposal, except for seasonal temporary use of shallow storage ponds used for nut hulling wash water.

The proposed Conditional Waiver would also impose certain specifications on the discharges regulated under the Conditional Waiver as follows:

1. Ponds may be used only for temporary storage of nut hulling wash water between August 1<sup>st</sup> and December 31<sup>st</sup> each year if all of the following conditions are met:

- a. Ponds must be operated and maintained to ensure that there is no discharge to surface water.
  - b. The water table must be at least 5 feet below the base of any pond.
  - c. The pond water depth must be no greater than 5 feet at any time in any pond.
  - d. A minimum of one foot of freeboard as measured from the water surface in any pond to the surrounding grade must be maintained at all times.
  - e. The discharger must begin land applying wastewater from each pond as soon as practical to minimize the duration of pond use and depth of water.
  - f. Discharge to any pond must cease and all ponds must be completely drained by December 31<sup>st</sup> each year. Draining includes removal of all water, visible residual solids and other organic matter.
  - g. Ponds must be backfilled with soil, or runoff controls must be installed to prevent storm water runoff from entering the pond between December 31<sup>st</sup> each year and June 30<sup>th</sup> of the following year.
2. Process wastewater and residual solids must not be discharged to any septic system.
  3. Process wastewater and residual solids applied to land must not contain stillage waste, water softener regeneration brine, boiler blowdown, or other high salinity waste.
  4. For Tiers 2 and 3, Wastewater and residual solids land application areas must be limited to those expressly described and mapped in the Report of Waste Discharge.
  5. For Tier 3 only, The Discharger must maintain and use at least one acre of cropland and/or landscaped area for each 100,000 gallons of wastewater and/or equivalent mass of residual solids applied to land each year.
  6. Objectionable odors due to the storage and/or land application of process wastewater or residual solids must not be perceivable beyond the limits of the property owned by the Discharger.
  7. The Discharger must take all reasonable steps to reduce the salinity of the wastewater that is applied to land. These steps must include, at a minimum:
    - a. Minimize the use of salt-containing additives in the process water and minimize the discharge of chemicals into the wastewater stream;
    - b. Minimize the use of non-biodegradable cleaners and other chemicals; and
    - c. When feasible, remove dry or solid wastes from equipment and floors before washing to prevent introduction of soluble waste constituents into the wastewater conveyance system.
  8. If wastewater is stored on-site prior to land application or off-site for disposal:
    - a. Wastewater must be fully contained in one or more tanks so that the waste does not contact the ground.
    - b. Wastewater must be removed from storage tanks before capacity is reached and land applied or transported off-site for disposal immediately upon removal.
  9. If wastewater is applied to land:
    - a. Wastewater must not be applied to land during rainfall or when the ground is saturated.
    - b. Wastewater must be applied to cropland or landscaped areas at a rate consistent with the water needs of the crop or vegetation grown in the land application area and

- at rates that do not exceed crop demand for nitrogen, including nitrogen loads from all sources (e.g., wastewater, residual solids, manure, and commercial fertilizer).
- c. Wastewater must not be applied within 25 feet of a water supply well.
  - d. Wastewater must not be applied within 25 feet of a surface water or surface water drainage course unless the land application area is graded or bermed to prevent discharge of runoff into the drainage course.
  - e. Wastewater must be evenly applied across the entire land application area.
10. If residual solids are temporarily stored on-site prior to land application or off-site for disposal:
- a. Residual solids must be fully contained so that the waste does not contact the ground.
  - b. Residual solids must be stored such that any leachate or storm water that contacts the waste is managed as wastewater in accordance with the conditions of this Order.
  - c. Residual solids drying and/or storage areas must be designed, constructed, operated, and maintained to prevent the washout or inundation due to floods with a 100-year return frequency.
11. Residual solids must be removed from storage tanks or areas before capacity is reached and land-applied or transported off-site for disposal immediately upon removal.
12. If residual solids are applied to land:
- a. Land application methods, rates, and management practices must be in accordance with those proposed in the Report of Waste Discharge unless the Discharger finds that specific changes are necessary to ensure continued compliance with the conditions of the Waiver.
  - b. If residual solids that contain free liquids are applied to land, the Discharger must ensure that all liquid is absorbed into the soil within 12 hours of application and that no liquid runs off the application area.
  - c. Residual solids must be applied to land at rates that do not exceed crop demand for plant nutrients based on the nutrient content of the solids, the nutrient requirements of the crops or other vegetation grown on the land application area, and the amount of other forms of fertilizer used.
  - d. Residual solids must be evenly applied across the entire land application area.
  - e. Grape stems or other dry, nonputrescible<sup>3</sup> matter (e.g., dry nut hulls) may be segregated from the rest of the residual solids and applied to the Discharger's property, including dirt roads, for erosion or dust control. However, such waste must be applied in a manner that prevents displacement by runoff into surface waters during storm events.
  - f. Any on-site composting must comply with the composting regulations found in Title 14 of the California Code of Regulations, Division 7, Chapter 3.1.

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<sup>3</sup> For the purpose of this Waiver, putrescible solids are residual solids that contain readily decomposable organic matter and moisture such that they are likely to create objectionable odors and attract insects under ambient outdoor conditions.

13. Land application of putrescible solids<sup>12</sup> must be conducted in accordance with the following requirements, which are in addition to those in Specific Condition C.16 above:
- a. Residual solids must not be applied within 25 feet of a surface water drainage course unless the land application area is graded or bermed to prevent discharge of runoff into the drainage course.
  - b. Residual solids must not be applied within 25 feet of a water supply well.
  - c. Residual solids must not be applied to land during rainfall or when the land application area is saturated.
  - d. The total annual loading rate for putrescible residual solids must not exceed the rate specified above for nonputrescible solids, or a total thickness of two inches, whichever is more restrictive.

## **4. ENVIRONMENTAL CHECKLIST**

### **4.1 Baseline for Environmental Review**

The Central Valley Region is home to numerous food processing facilities, wineries, and agricultural commodity processing facilities. The majority of these facilities generate process wastewater and/or residual solids, but many of them are in rural areas where public sewer service is not available. Historically, these wastes have been discharged to land in various ways, including via percolation ponds, septic system leach fields (for lower flows), and land application to cropped fields. Many of these discharges have traditionally not been subject to regulatory oversight; the proposed Conditional Waiver represents an effort on the part of the Central Valley Water Board to ensure that these discharges will not have a significant effect on water resources or any other sensitive environmental resource.

Larger food processing facilities and wineries (those that discharge over 1,000,000 gallons of wastewater per year) and those that discharge high-salinity wastes can potentially pose a more significant threat to water quality, depending on the nature of the discharge and site-specific soil and groundwater conditions. These processing facilities and wineries must obtain regulatory coverage under a different permit. In many cases, the Central Valley Water Board will issue individual Waste Discharge Requirements (WDRs) to regulate these discharges, based on the unique character of the waste streams and based on the site-specific conditions of the environmental setting in which these discharges will occur.

Except in response to complaints about nuisance or water quality impacts, many agricultural commodity processing facilities, such as seasonal nut hulling and seed processing operations performed on farms, have not been regulated under by the Central Valley Water Board. However, the Central Valley has seen a significant increase in the acreage of tree nut orchards over the last five years, and preliminary contact with industry representatives indicates that there are approximately 400 nut hulling facilities existing in in the region, both on- and off-farm. It is likely that all of them discharge their process wastes to land. The number of facilities that process seed crops on farm property is not known. The conditions imposed by the proposed Conditional Waiver are designed to ensure that the waste management practices currently in use at many of these agricultural facilities do not create nuisance or water quality impacts.

Vegetable and cucurbit<sup>4</sup> seed production are also important aspects of the Central Valley's agricultural production. As with tree nuts, the seed crops may be processed at the farm site or at a centralized permanent plant. To the extent that these crops are processed at the farm site, it is likely that the operations do not occur in the same location every year, depending on crop rotation between seed and other crops. Typically, the vegetables/cucurbits are harvested when

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<sup>4</sup> Typically melons, cucumbers, and squash.

fully ripe, and processed with crushing and screening machinery to remove the seeds. Water is used to create a slurry and enhance separation of seeds from pulp. Additional subsequent washing and treatment may be performed on- or off-site. There are a few known commercial seed processing operations that are regulated under individual WDRs and an unknown number of unregulated facilities (both centralized and on-farm).

Over the last 15 years, the number of small wineries in the region has grown significantly, particularly in the foothills counties (El Dorado, Placer, Amador, Calaveras), but also in Napa, Lake, Yolo, and San Joaquin Counties. Additionally, as demand for small-production “artisanal” foods has grown in the last several years, there has been a commensurate increase in small food processor operations in this agricultural region, including olive oil processors and micro-breweries that produce small amounts of beer. This growth has become a major economic driver in some rural areas because of the associated tourism. As with the agricultural processing facilities, the conditions imposed by the proposed Conditional Waiver are designed to ensure that the waste management practices employed by small wineries do not create nuisance or water quality impacts. The conditions of the proposed Conditional Waiver also set clear regulatory thresholds; should a winery expand and thereby exceed the eligibility criteria in the proposed Conditional Waiver, the winery must submit a report of waste discharge to the Central Valley Water Board to obtain individual WDRs.

This environmental review determines the significance of environmental impacts relative to an environmental “baseline” that consists of the existing environment, absent the proposed project. In analyzing the potential direct and indirect environmental impacts that could result from the adoption and implementation of the proposed Conditional Waiver, the Board made the following determinations:

- The baseline includes facilities that currently exist and discharge process wastes to land. This includes facilities regulated under the 2008 Waiver, and those that discharge without coverage under the 2008 Waiver or individual WDRs.
- The baseline for small food processors and wineries currently discharging without coverage under the 2008 Waiver or individual WDRs is based on the assumption that those facilities currently utilize septic systems for process wastewater disposal and may manage residual solids by stockpiling on bare soil and/or uncontrolled land application.
- The baseline for nut hullers currently discharging without coverage under the 2008 Waiver or individual WDRs is based on the assumption that those facilities spread the nut hulls on farmland as a soil amendment and discharge the process wastewater to unlined ponds for percolation and/or storage until the following spring when the water may be used to irrigate the orchard or other cropland.
- The baseline for seed processors currently discharging without coverage under the 2008 Waiver or individual WDRs is based on the assumption that those facilities spread the residual skins and fruit/vegetable pulp in an uncontrolled manner on farmland as a soil amendment and discharge the process wastewater to unlined ponds for percolation and/or storage until the following spring when the water may be used to irrigate cropland.

## **4.2 Environmental Setting – Biology**

California is geographically diverse and includes desert, coastal, and alpine areas. Diversity of geography, temperature and moisture creates a significant diversity of biological resources. Nationwide, California has the largest number of species overall, and the most endemic species. California also has the highest number of rare species (species listed under the federal

Endangered Species Act or the California Endangered Species Act), and about one-third of those species are at risk of local or global extinction.

California is divided geographically into ten bioregions, relatively large areas containing geographically distinct assemblages of natural communities and species. Part or all of eight of these bioregions are found within the Central Valley: Modoc, Klamath/North Coast, Sacramento Valley, Bay/Delta, Sierra, San Joaquin Valley, Central Coast, Mojave Desert. The bioregions are depicted on Figure 1, and a brief description of each bioregion that forms part of the Central Valley follows.



**Modoc Bioregion** - This bioregion is also referred to as the Modoc Plateau and the Southern Cascade Bioregions. The Modoc Bioregion extends across California's northeast corner from Oregon to Nevada, and south to the southern border of Lassen County. The physical geography of the region includes flats, basins, valleys, lava flows, and mountains. High desert and forests are the dominant vegetation communities. Several major lakes (Goose, Eagle, and Tule) and Mount Lassen (10,450 feet in elevation) are dominant physical features. The bioregion shares many similarities with the Great Basin region that forms much of its eastern boundary. The area's large lakes provide critical habitat for migratory birds (USGS 2003).

Counties within this bioregion include all or portions of Plumas, Siskiyou, Butte, Tehama, Shasta, Lassen, and Modoc, which support relatively sparse population bases including the municipalities of Susanville and Alturas. This bioregion comprises the northern quarter of the Lahontan Hydrologic Region.

**Klamath/North Coast Bioregion** - The Klamath/North Coast Bioregion extends roughly one-quarter of the way down the 1,100-mile coast and east across the Coastal Ranges and into the Cascades. The region extends from the Oregon border to Point Arena and from the continental shelf to the Central Valley, including the looming Mount Shasta (14,160 feet tall) near the eastern boundary. The region is one of rugged relief, with severely sheared, faulted, and folded mountains forming parallel ridges and river valleys. It also has coastal terraces, lagoons, and populated floodplains, as well as off-shore islands, estuaries, and subtidal deep-water habitats (USGS 2003). The California bioregional classification system does not include offshore and tidal areas. The marine portion of this bioregion is within two categories of California's marine and ocean classification system: Southern Oregonian Province and Central Ocean (CERES 2005). Numerous rivers in this region offer spawning grounds for anadromous fish (e.g., salmon), including the Eel, Trinity, Klamath, Russian, Smith, Sacramento, Salmon, Scott, Mad, and Mattole Rivers. Large lakes include Clear Lake, Whiskeytown Lake, Clair Engle Lake, and the western part of Shasta Lake.

This bioregion includes all or portions of 10 counties: Del Norte, most of Siskiyou, Humboldt, Trinity, Mendocino, Lake, and the northwestern portions of Shasta, Tehama, Colusa, and Glenn. The region's rugged and remote nature supports low population numbers. The largest cities in the region are Redding at the northern end of the Central Valley and Eureka in Arcata Bay. This bioregion encompasses all of the North Coast Hydrologic Region.

**Sacramento Valley Bioregion** - This bioregion makes up the northern portion of California's Great Valley, extending south roughly from Redding in the north to the northern edge of the Sacramento–San Joaquin River Delta (Delta) at the confluence of the Sacramento and American Rivers. The eastern boundary spans the northern third of the Sierra Nevada foothills. The landscape is relatively flat, consisting of basins, plains, terraces, alluvial fans, and scattered hills or buttes.

Counties incorporated in this populated bioregion are Sutter, most of Sacramento, and Yolo and portions of Butte, Colusa, Glenn, Placer, Shasta, Tehama, and Yuba. Sacramento is the bioregion's largest city with other large cities including Redding, Chico, Davis, West Sacramento, and Roseville, making it the fourth most populous of the 10 bioregions. This bioregion covers a fraction of the Central Valley Hydrologic Region.

**Bay/Delta Bioregion** - The Bay/Delta bioregion extends from the Pacific Ocean to the Sacramento Valley and San Joaquin Valley bioregions to the northeast and southeast, and a short stretch of the eastern boundary joins the Sierra bioregion at Amador and Calaveras Counties. The bioregion is bounded by the Klamath/North Coast bioregion on the north and the Central Coast bioregion to the south (CERES 2005). The marine and ocean areas are categorized as the Oceanic bioregion and the northern portion of the Central Ocean bioregion. These bioregions include two-thirds of California's coast, extending down to Point Conception

north of Santa Barbara. The Bay/Delta bioregion is one of the most populous, encompassing the San Francisco Bay Area and the Delta.

The bioregion fans out from San Francisco Bay in a jagged semi-circle that takes in all or part of 12 counties: Marin, Contra Costa, Santa Clara, Alameda, Solano, San Mateo, San Francisco, Sonoma, Napa, San Joaquin, and parts of Sacramento and Yolo. Major cities include San Francisco, Santa Rosa, Oakland, Berkeley, Vallejo, Concord, and San Jose. Though of moderate size, the Bay/Delta bioregion is the second most populous bioregion. This bioregion contains portions of the San Francisco Bay and Central Valley Hydrologic Regions.

**Sierra Bioregion** - The Sierra bioregion is named for the Sierra Nevada mountain range that is approximately 380 miles long and extends from the Feather River in the north to Tejon Pass in the Tehachapi Mountains to the south. The bioregion extends along California's eastern boundary and is largely contiguous with Nevada. It is bounded on the west by the Sacramento Valley and San Joaquin bioregions. Included in the region are the headwaters of 24 river basins extending to the foothills on the west side and the base of the Sierra Nevada escarpment on the east side (USGS 2003). These watersheds generate much of California's water supply provided by runoff from the Sierra snowpack.

Eighteen counties, or their eastern portions, make up the Sierra bioregion: Alpine, Amador, Butte, Calaveras, El Dorado, Fresno, Inyo, Kern, Madera, Mariposa, Mono, Nevada, Placer, Plumas, Sierra, Tulare, Tuolumne, and Yuba. The larger cities include Truckee, Placerville, Quincy, Auburn, South Lake Tahoe, and Bishop (CERES 2005). This bioregion encompasses portions of the Lahontan, Central Valley, and Mojave Hydrologic Regions.

**San Joaquin Valley Bioregion** - The San Joaquin Valley bioregion is bordered by the Coast Ranges on the west and the southern two-thirds of the Sierra bioregion on the east. This bioregion is in the heart of California and is the state's top agricultural region, producing fruits and vegetables in its fertile soil.

Eight counties are found within the bioregion: Kings, most of Fresno, Kern, Merced, and Stanislaus and portions of Madera, San Luis Obispo, and Tulare. This bioregion, the third most populous, still contributes to the state's top 10 counties in farm production value (CERES 2005). Large communities include Fresno, Merced, Modesto, and Bakersfield.

**Central Coast Bioregion** - The Central Coast Bioregion includes marine, freshwater, and terrestrial resources. The bioregion extends some 300 miles from just north of the city of Santa Cruz to just south of the city of Santa Barbara, and inland to the floor of the San Joaquin Valley. The edge of the continental shelf forms the western boundary; on the east the region borders the Central Valley bioregion. The marine and ocean areas are categorized as the Central Ocean bioregion and the Southern California Bight. These marine regions extend from Cape Mendocino in the north to Point Conception in the south (CERES 2005).

The bioregion encompasses the counties of Santa Cruz, Monterey, San Benito, Santa Barbara, and portions of Los Angeles, San Luis Obispo, Fresno, Merced, Stanislaus, and Ventura. Large cities include Monterey, San Luis Obispo, and Santa Barbara. This bioregion also encompasses all of the Central Coast and Los Angeles Hydrologic Regions.

**Mojave Desert Bioregion** - The Mojave Desert Bioregion is located in southern California, southern Nevada, northeastern Arizona, and southwestern Utah. In California, the bioregion comprises the southeastern portion of the state, roughly east of the Sierra bioregion to the Transverse Ranges in the west, where this region abuts the Colorado Desert near Twentynine Palms. The geography is defined by widely separated mountain ranges and broad desert plains, and ranges in elevation from 280 feet below sea level in Death Valley National Park to over 11,000 feet on Telescope Peak. Much of the region is at elevations between 2,000 and 3,000 feet.

Seven counties make up the Mojave bioregion: nearly all of San Bernardino, most of Inyo, the southeastern tips of Mono and Tulare, the eastern end of Kern, the northeastern desert area of Los Angeles, and a piece of north-central Riverside County. The largest cities are Palmdale, Victorville, Ridgecrest, and Barstow (CERES 2005). The Mojave Desert Bioregion is within the southern portion of the Lahontan Hydrologic Region.

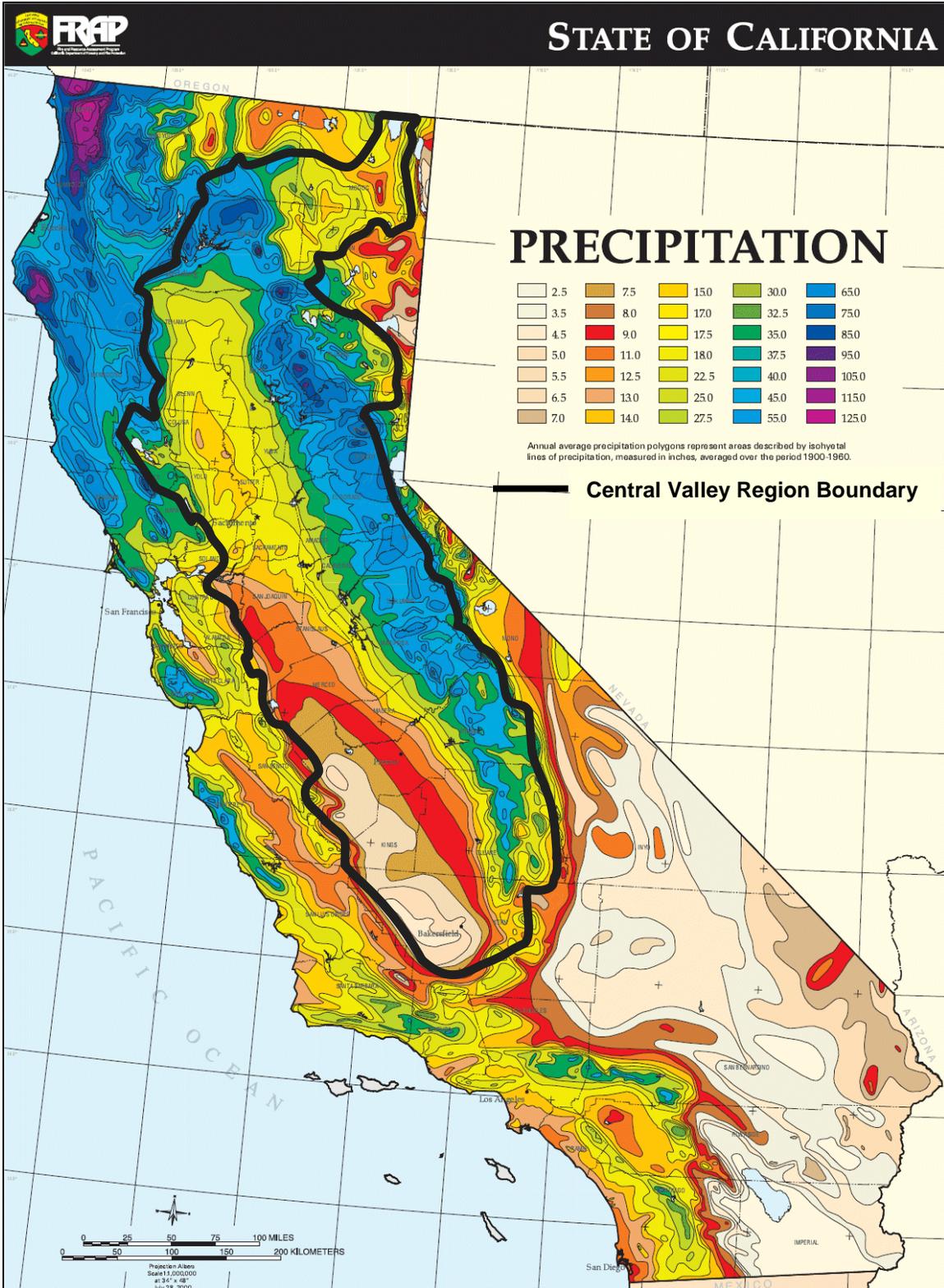
### **4.3 Environmental Setting – Hydrology <sup>5</sup>**

Most of California is within one hydrological region as defined by the United States Geological Survey (USGS), but that region is further divided into 153 hydrological cataloging units (moderate-sized watersheds). Since the ultimate determinants of the availability of surface and groundwater resource within the individual Regional Water Boards is the climatic pattern, this section provides a brief overview of the key hydrological elements for the Central Valley Region.

There is relatively abundant precipitation in the state but the majority of the precipitation is concentrated in areas remote from most large urban centers and major agricultural areas. Much of the climatic variation in the state results from the patterns of global weather systems, oceanic influences, and the location and orientation of the mountains. As shown in Figure 2 below, most of the Central Valley is semiarid to arid.

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<sup>5</sup> General hydrology descriptions were adapted from: Planert, M. and J.S. Williams. 1995. Groundwater Atlas of the United States: California, Nevada. HA 730-B. United States Geological Survey. USGS webpage: < [http://pubs.usgs.gov/ha/ha730/ch\\_b/index.html](http://pubs.usgs.gov/ha/ha730/ch_b/index.html) >; CalWater. 1999. California Interagency Watershed Map of 1999.



**Figure 2. Annual Precipitation Rates in California (CDF, 2011)**

Typically, most of the annual precipitation in the state falls between November and April, and summers are typically dry except in the mountain areas in the eastern and northern parts of the region. Precipitation totals vary greatly from year to year, which can make surface water supplies undependable.

Runoff is the amount of water left from precipitation that can be measured as stream flow after losses to evaporation, transpiration by plants, and the replenishment of storage within the aquifers. The areal distribution of runoff closely follows the areal distribution of precipitation. Runoff is greatest in the mountains (exceeding 40 inches per year in many areas), where the majority of precipitation falls as snow that melts during the spring and runs off with minimal evapotranspiration.

The relation between precipitation and evapotranspiration is a major factor in water availability. If annual precipitation exceeds annual potential evapotranspiration, then there is a net surplus of water and stream flow is perennial. Water is available to recharge aquifers only at times when precipitation or snowmelt is greater than actual evapotranspiration. However, annual potential evapotranspiration can exceed annual precipitation, which causes a net deficit of water. A net annual moisture deficit is present almost everywhere in the Central Valley Region except the mountainous regions of northern and east-central California.

Before the inception of agriculture, the largest rivers in the Central Valley Region overflowed their banks during periods of peak winter flows and formed extensive marshlands. An elaborate flood control system and the lowering of the water table by withdrawals for irrigation now keep these rivers within their banks and have significantly affected the distribution of riparian wetlands.

#### **4.3.1 Hydrologic Regions of the Central Valley <sup>6</sup>**

Hydrologists divide California into hydrologic regions (Figure 3). The Regional Water Boards are primarily defined by the boundaries of these hydrologic regions, as described in Water Code section 13200. Hydrologic regions are further divided into hydrologic units, hydrologic areas, and hydrologic subareas. The Central Valley Hydrologic Region is the largest in California, and encompasses the three subregions described below.

**Sacramento River Hydrologic Subregion** - The Sacramento River Hydrologic Subregion includes the entire drainage area of the Sacramento River, the largest river in California, and its tributaries. Groundwater in the northern half of this hydrologic subregion is, for the most part, contained in volcanic rock aquifers and some basin-fill aquifers. The southwestern half of this subregion is underlain by part of the Central Valley aquifer system. The remaining areas that comprise the southeastern half of the subregion and portions of the northern half of the subregion are underlain by fractured hard rock zones. Surface water quality in this hydrologic subregion is generally good. Groundwater quality in the Sacramento River subregion is also generally good, although there are localized problems.

**San Joaquin River Hydrologic Subregion** - A portion of the Central Valley aquifer system underlies nearly the entire eastern half of the San Joaquin River subregion, while the western half of this subregion consists of fractured hard rock zones. The groundwater quality throughout this hydrologic region is generally good and usable for most urban and agricultural uses, although localized problems occur.

**Tulare Lake Hydrologic Subregion** - A small area at the southern end of the Tulare Lake subregion is underlain by basin-fill aquifers, while a majority of the western half is underlain by a

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<sup>6</sup> Hydrologic region descriptions were adapted from California's Groundwater, Bulletin 118, DWR 2003 and the Central Valley Water Board Basin Plans.

portion of the Central Valley aquifer system. The eastern half consists of fractured hard rock zones.

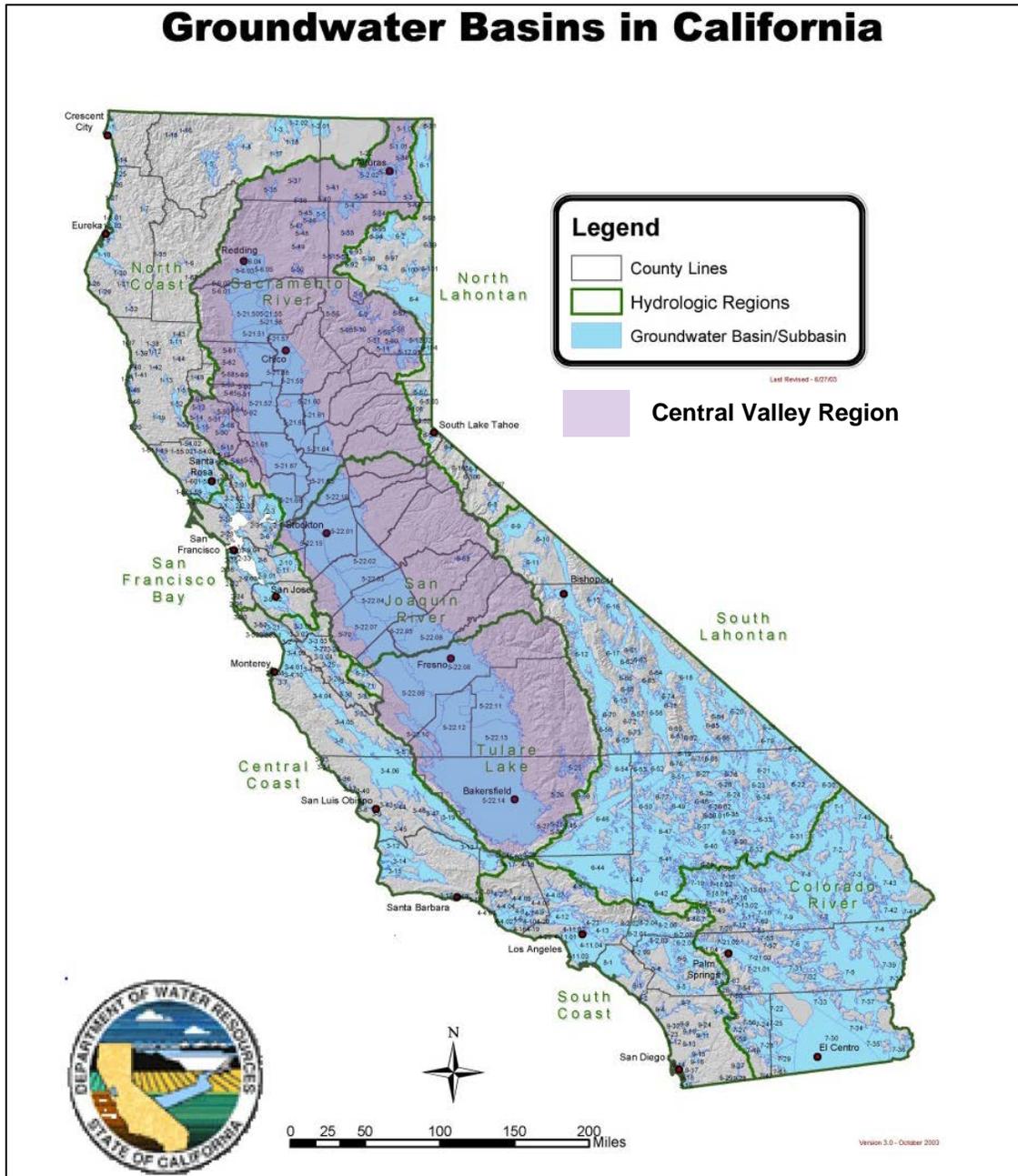


Figure 3. Hydrologic Regions and Groundwater in California (DWR, 2003)

#### 4.4 Environmental Checklist

The Central Valley Water Board has prepared this Initial Study to evaluate reasonably foreseeable environmental impacts associated with adopting the proposed Conditional Waiver. The proposed Conditional Waiver would regulate facilities throughout the Central Valley Region, and thus the evaluation of the environmental factors does not address a specific site.

Discharges of wastewater from small food processors pose a relatively low risk to water quality; the conditions of the proposed Conditional Waiver are designed to ensure that these discharges will be mitigated to less than significant levels. However, environmental review may need to be performed by local agencies that need to issue land use approvals for new or expanding facilities. Impacts associated with those land use determinations fall outside the purview of this analysis. Discharges that do not qualify for coverage, such as discharges from larger facilities and facilities that involve the discharge of the types of high-salinity wastes prohibited by the proposed Conditional Waiver similarly fall outside the purview of this analysis; if a particular proposed discharge does not meet the criteria of the proposed Conditional Waiver, the Central Valley Water Board may prepare an individual waiver or WDRs, as appropriate, and this would be accompanied by separate CEQA findings.

The following analysis identifies self-implementing mitigation measures (e.g., air and noise impacts mitigated by compliance with air quality standards and local noise ordinances that automatically apply). Additional mitigation measures may be needed to mitigate site-specific impacts identified during the consideration of other permit approvals, including, but not limited to, conditional use permits, grading permits, and permits to operate.

#### Environmental factors checked below could be potentially affected by this project.

|                                     |                          |                                     |                                    |                                     |                                    |
|-------------------------------------|--------------------------|-------------------------------------|------------------------------------|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> | Aesthetics               | <input checked="" type="checkbox"/> | Agriculture and Forestry Resources | <input checked="" type="checkbox"/> | Air Quality                        |
| <input checked="" type="checkbox"/> | Biological Resources     | <input checked="" type="checkbox"/> | Cultural Resources                 | <input checked="" type="checkbox"/> | Geology/Soils                      |
| <input checked="" type="checkbox"/> | Greenhouse Gas Emissions | <input checked="" type="checkbox"/> | Hazards & Hazardous Materials      | <input checked="" type="checkbox"/> | Hydrology/Water Quality            |
| <input checked="" type="checkbox"/> | Land Use/Planning        | <input checked="" type="checkbox"/> | Mineral Resources                  | <input checked="" type="checkbox"/> | Noise                              |
| <input checked="" type="checkbox"/> | Population/Housing       | <input checked="" type="checkbox"/> | Public Services                    | <input checked="" type="checkbox"/> | Recreation                         |
| <input checked="" type="checkbox"/> | Transportation/Traffic   | <input checked="" type="checkbox"/> | Utilities/Service Systems          | <input checked="" type="checkbox"/> | Mandatory Findings of Significance |

The CEQA Guidelines recommend that lead agencies use an Initial Study Checklist to determine the potential impacts of a proposed project to the physical environment. The Initial Study Checklist provides questions concerning a comprehensive array of environmental issue areas potentially affected by this project. This section of the Initial Study incorporates a portion of the Appendix "G" Environmental Checklist Form, contained in the CEQA Guidelines. Impact questions and responses are included in both tabular and narrative formats for each of the 17 environmental topic areas.

There are five (5) possible answers to the Environmental Impacts Checklist on the following pages. Each possible answer is explained below:

- 1) A "Potentially Significant Impact" answer is appropriate if there is enough relevant information and reasonable inferences from the information that a fair argument can be made to support a conclusion that a substantial, or potentially substantial, adverse change may occur to any of the physical conditions within the area affected by the project. When one or more "Potentially Significant Impact" entries are made, an EIR is required.

- 2) A "Less Than Significant With Mitigation Incorporated" answer is appropriate where the applicant has agreed to incorporate a mitigation measure to reduce an impact from "Potentially Significant" to a "Less than Significant." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level. For the purpose of this analysis, this response means that mitigation has been incorporated as one or more conditions or prohibitions in the proposed Conditional Waiver itself.
- 3) A "Less Than Significant Impact" answer is appropriate if there is evidence that one or more environmental impacts may occur, but the impacts are determined to be less than significant. For the purpose of this analysis, this response means that the potential impacts are not significant even without mitigation measures incorporated into the Conditional Waiver itself.
- 4) A "No Impact" answer is appropriate where it can be clearly seen that there is no potential to adversely affect the physical environment.

A brief explanation is provided for all answers except "No Impact" answers.

#### 4.4.1 Aesthetics

| ENVIRONMENTAL FACTOR   | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project:   |                                |  |                                     |                          |
| a) Have a substantial adverse effect on a scenic vista?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?                                     | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

a-d) Though the expansion of existing facilities and the creation and operation of new facilities could result in potential impacts to aesthetics, the discharge of wastes and the waste management practices regulated under the proposed Conditional Waiver would not result in potential impacts to aesthetics, as the minor alterations of current practices are not aesthetically different from existing agricultural practices currently utilized in areas that would be regulated by the proposed Conditional Waiver. The Board notes, however, that facilities whose discharges could be regulated under the Waiver may also engage in activities within the viewshed of scenic highways, federal, state and local regulations would prohibit these facilities from being constructed within highway rights-of-way. Some food processing facilities will operate at night, and some of the work may require outdoor lighting at night, and some facilities will host special public events, such as wine tasting, weddings and concerts that require outdoor lighting at night. The issuance of permits for this type of outdoor lighting, and the determination of whether such activities fall within the scope of the land use permits issued for these facilities, is beyond the scope of this analysis.

**Conclusion:** The proposed Conditional Waiver would result in a **less than significant impact** to aesthetics. Existing facilities that expand or new facilities that are constructed after adoption of the proposed Conditional Waiver are subject to local agency approvals, permits, and possibly

a project-level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented. Siting criteria of the local authority will continue to establish appropriate locations and design standards for new structures or modifications to existing structures on a site-specific basis. Many local agencies have ordinances in place establishing standards for construction within scenic areas. The Waiver will not affect those requirements. As site-specific issues are identified, site-specific mitigation would be developed by the local agency, if needed.

#### 4.4.2 Agricultural and Forest Resources

| ENVIRONMENTAL FACTOR  | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|---|--------------------------------|--|-------------------------------------|-------------------------------------|
| Would the project:  |                                |  |                                     |                                     |
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping & Monitoring Program of the California Resources Agency, to non-agricultural uses? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined by Public Resources Code section 4526)?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d) Result in the loss of forest land or conversion of forest land to non-forest use?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 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?                                  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**Conclusion:** The proposed Conditional Waiver would not change zoning or land use designations. The Board does not have any evidence to conclude that any of the agricultural practices regulated under this Conditional Waiver would require the conversion of farmland to other uses, or that different entitlements would be required by local land use authorities. The proposed Conditional Waiver does not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned for timber production. Therefore, **the impacts would be less than significant.**

### 4.4.3 Air Quality

| ENVIRONMENTAL FACTOR   | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project:   |                                |  |                                     |                          |
| a) Conflict with or obstruct implementation of the applicable air quality plan?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Expose sensitive receptors to substantial pollutant concentrations?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people?  | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                | <input type="checkbox"/>            | <input type="checkbox"/> |

The air quality regulatory framework is complex and varies at the federal, state, and local levels throughout the Central Valley. Multiple federal and state laws provide the California Air Resources Board and local air districts with authority to protect public health by regulating air contaminants with potential to cause adverse health effects:

- California Clean Air Act Requirements - The California Health and Safety Code (H&SC) section 39607(e) requires the California Air Resources Control Board (CARB) to establish and periodically review and designate areas of California as attainment, nonattainment, or unclassified for State standards. The CARB makes area designations for ten pollutants: ozone, suspended particulate matter (PM10 and PM2.5), carbon monoxide, nitrogen dioxide, sulfur dioxide, sulfates, lead, hydrogen sulfide, and visibility reducing particles.
- Federal Clean Air Act Requirements - Like the CARB, US EPA designates areas for each pollutant for which there is a national ambient air quality standard: Ozone 8-Hour Standard, PM10, PM2.5, Carbon Monoxide, Nitrogen Dioxide, and Sulfur Dioxide.
- Local Air Quality Management/Air Pollution Control - The State of California is divided into Air Pollution Control Districts (APCD) and Air Quality Management Districts (AQMD); referred to herein as air districts. Air districts are county or regional governing authorities that have primary responsibility for controlling air pollution from stationary sources.

a-d) The proposed Conditional Waiver would not directly result in the generation of potential air quality impacts. Though emissions generating equipment, such as boilers and heavy equipment powered by fossil fuels or electrical generators that use fossil fuels, could be employed by facilities regulated under the proposed Conditional Waiver, where such equipment could create impacts to air quality, permits would be required or operating requirements would be imposed by one of the regulatory programs summarized above.

e) Management of process wastewater and/or residual solids from facilities regulated under the proposed Conditional Waiver could create objectionable odors; the wastes are typically high in biodegradable organic matter and enough water is typically present to foster aerobic decay (when sufficient oxygen is present) and anaerobic decay (when atmospheric oxygen cannot diffuse into the waste). Though both aerobic and anaerobic decay create odors, most people find the odor associated with anaerobic decay to be more offensive. However, the use of common best management practices developed and implemented by the food processing

industry has been shown to effectively prevent the creation of nuisance odors in the majority of cases, and odors are particularly easy to control or mitigate with small discharges. The underlying principles are to prevent standing water in the land application areas, prevent soil saturation with wastewater for prolonged periods, and distributing the discharged waste over a large area to maximize contact with atmospheric oxygen. The proposed Conditional Waiver includes several prohibitions and discharge specifications to mitigate the potential for nuisance odor conditions to occur to a less-than-significant level:

- The proposed Conditional Waiver prohibits the use of ponds for wastewater treatment, storage, or disposal, except for seasonal temporary use of shallow storage ponds used for nut hulling wash water.
- The proposed Conditional Waiver requires that process waste be applied at rates consistent with the water needs of the crop or vegetation grown in the land application area and at agronomic rates for nitrogen and other crop nutrients present in the waste.
- The proposed Conditional Waiver requires that process waste be evenly applied across the entire land application area.
- The proposed Conditional Waiver requires that, if residual solids that contain free liquids are applied to land, the Discharger ensure that all liquid is absorbed into the soil within 12 hours of application and that no liquid runs off the application area.
- The proposed Conditional Waiver prohibits the application of solids to land during periods of precipitation or when the land application area is saturated.
- The proposed Conditional Waiver requires that solids be evenly applied across the entire land application area.
- The proposed Conditional Waiver prohibits the total annual loading rate for putrescible residual solids from exceeding the agronomic rate for nitrogen, or a total thickness of two inches, whichever is more restrictive.

**Conclusion:** The proposed Conditional Waiver would result in a **less than significant impact** to air quality. For air pollution impacts, existing facilities that expand or new facilities that are constructed after adoption of the proposed Conditional Waiver are subject to local agency approvals, permits, and possibly a project-level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented for both construction- and operations-related air quality impacts. Additionally, pollutant sources will be regulated by the local air district to ensure compliance with air quality standards. For nuisance odors, the proposed Conditional Waiver includes mitigation measures that will reduce the impacts to less-than-significant levels.

#### 4.4.4 Biological Resources

| ENVIRONMENTAL FACTOR   | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project:   |                                |  |                                     |                          |
| 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 DFG or USFWS? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

| ENVIRONMENTAL FACTOR  | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|---|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project:  |                                |  |                                     |                          |
| 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 DFG or USFWS?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Have a substantial adverse effect on federally-protected wetlands as defined by Section 404 of the federal Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory corridors, or impede the use of native wildlife nursery sites?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

a-e) The proposed Conditional Waiver would not directly result in potential impacts to biological resources. However, the expansion of existing facilities and creation and operation of new facilities whose waste discharges would be regulated under the proposed Conditional Waiver could result in potential impacts to biological resources. Facilities whose discharges could be regulated under the Waiver could be in a variety of settings, including sensitive habitat areas. Depending on the nature of the facility, footprint, and construction and operational activities, the potential for impacts will vary.

**Conclusion:** The proposed project would result in a **less than significant impact** on biological resources. Existing facilities that expand or new facilities that are constructed after adoption of the proposed Conditional Waiver are subject to local agency approvals, permits, and possibly a project-level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

#### 4.4.5 Cultural Resources

| ENVIRONMENTAL FACTOR  | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|---|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project:  |                                |  |                                     |                          |
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?      | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?         | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries?                            | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

(a-d) The proposed Conditional Waiver would not directly cause potential impacts to cultural resources. However, the expansion of existing facilities and creation of new facilities that would be regulated under the proposed Conditional Waiver may result in site disturbance that might, in some circumstances, disturb or cause changes to cultural resources.

**Conclusion:** The proposed Conditional Waiver would result in **less than significant impacts** to cultural resources. Existing facilities that expand or new facilities that are constructed after adoption of the proposed Conditional Waiver are subject to local agency approvals, permits, and possibly a project-level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented in accordance with local, state, and federal requirements as follows:

- Projects will be required to comply with Public Resource Code section 21159 to ensure implementation of necessary site specific actions to avoid, minimize, and mitigate potential impacts to significant historical, archaeological, and paleontological resources, or unique geological features.
- Projects will be required to comply with CEQA requirements for tribal consultation required by Senate Bill 18 (SB 18) (Stats 2004, Ch 905) and Government Code section 65352. SB 18 refers to “places, features, and objects” as described in Public Resource Code sections 5097.9 and 5097.993. Required actions involving construction already include a thorough search of records, published literature, and databases, to avoid and minimize potential impacts to identified cultural resources. This is expected to ensure the implementation of any necessary site-specific actions to avoid, minimize and mitigate any impacts to significant historical, archaeological, and paleontological resources or sites, or unique geological features.
- Upon discovery of human remains during construction of expanded or new facilities that would be regulated under the Waiver, project proponents will need to comply with Health and Safety Code section 7050.5 and Public Resources Code section 5097.98 to reduce potential impacts to less than significant levels.

#### 4.4.6 Geology and Soils

| ENVIRONMENTAL FACTOR   | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project:   |                                |  |                                     |                          |
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| i) Rupture of a known earthquake fault, as delineated in 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 & Geology Special Publication 42. | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ii) Strong seismic ground shaking?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv) Landslides?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil?  | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                | <input type="checkbox"/>            | <input type="checkbox"/> |

| ENVIRONMENTAL FACTOR  | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|---|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project:  |                                |  |                                     |                          |
| 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 on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on expansive soils, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternate wastewater disposal systems where sewers are not available for the disposal of wastewater?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

a) The Waiver would not directly result in potential impacts associated with geology and soils. Expansion of existing facilities or construction of new facilities whose discharges would be regulated under the Waiver could include potential geologic and soil-related impacts. There is wide variation in the state relative to seismic risk with respect to faulting, ground shaking, seismically related ground failure, and liquefaction. Existing facilities that expand or new facilities that are constructed after adoption of the proposed Conditional Waiver will be subject to local Use Permits and an associated project-level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented. At a minimum these projects would be subject to local building codes developed to reduce the risk of loss, injury, or death to a less than significant level.

b) The proposed Conditional Waiver itself would not have the potential to cause soil erosion, and the Wavier incorporates the following conditions of discharge that will prevent erosion and loss of topsoil within areas used for land application of waste:

- Process waste shall not be applied to land during rainfall or when the ground is saturated.
- Process waste shall be evenly applied across the entire land application area.
- Process waste shall be applied at rates consistent with the water needs of the crop or vegetation grown in the land application area and at agronomic rates for nitrogen and other crop nutrients present in the waste.
- Process waste shall not be applied within 25 feet of a surface water drainage course unless the land application area is graded or bermed to prevent discharge of runoff into the drainage course.

Existing facilities that expand or new facilities that are constructed after adoption of the proposed Conditional Waiver may involve excavation, grading, and/or surface soil disturbance. Local governments typically have established protocols for construction projects to minimize soil erosion and sedimentation, and minimize storm water runoff. Such projects are subject to local agency approvals, permits, and possibly a project-level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

c–e) The proposed Conditional Waiver itself would not have the potential to cause impacts associated with soil instability, expansive soils or site suitability for septic systems. Existing facilities that expand or new facilities that are constructed after adoption of the proposed Conditional Waiver are subject to local agency approvals, permits, and possibly a project-level

CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

**Conclusion:** The proposed Conditional Waiver would result in **less than significant impacts with mitigation incorporated** for the areas used for land application of waste. Existing facilities that expand or new facilities that are constructed after adoption of the proposed Conditional Waiver are subject to local agency approvals, permits, and possibly a project-level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

#### 4.4.7 Greenhouse Gas Emissions

| ENVIRONMENTAL FACTOR   | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project:   |                                |  |                                     |                          |
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?                    | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

a) Global climate change is a change in the average weather of the earth, which can be measured by wind patterns, storms, precipitation, and temperature. It is exacerbated by greenhouse gases, which trap heat in the atmosphere (thus the “greenhouse” effect). Greenhouse gases include carbon dioxide, methane, and nitrous oxide, and are emitted by natural processes and human activities. Greenhouse gas accumulates in the atmosphere and regulates Earth’s temperature, and is natural and desirable as without it Earth’s surface would be significantly cooler, and generally uninhabitable by current standards. The effects of Global Climate change at levels exceeding natural and desirable levels includes increased drought and associated increase in wildfires, increased flooding events, and increased vector-borne disease.

In September 2006, Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012.

To effectively implement the cap, AB 32 directs the California Air Resources Board (CARB) to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 (which regulates GHG emissions from vehicles, but is currently the subject of litigation) should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions.

SB 97, signed in August 2007, acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. This bill directed the California Office of Planning and Research (OPR) to prepare, develop, and transmit guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions to the California Resources Agency. OPR developed a technical advisory suggesting relevant ways to address climate change in CEQA analyses. The technical advisory also lists potential mitigation measures, describes useful computer

models, and points to other important resources. In addition, amendments to CEQA guidelines implementing SB 97 became effective on March 18, 2010.

Previously adopted state regulations include AB 1493, which requires that CARB develop and adopt, by January 1, 2005, regulations that achieve “the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the state.” In 2005, Executive Order No. S-3-05 was signed by Governor Schwarzenegger stating that GHG emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050. Executive Order No. S-3-05 directed the Secretary of the California Environmental Protection Agency to coordinate a multi-agency effort to reduce GHG emissions to the target levels.

The proposed Conditional Waiver itself would not directly result in the generation of greenhouse gas emissions, or in effects associated with adaptation to global climate change. Existing facilities that expand or new facilities that are constructed after adoption of the proposed Conditional Waiver may generate greenhouse gases during construction, and from electrical power and equipment that uses carbon-based fuel used for operations.

b) The discharge of organic waste regulated under the Waiver will result in generation of some greenhouse gas (GHG) emissions as organic matter degrades in the soil of the land application area. The primary gasses of concern produced are carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>). The amount of these gases produced will vary depending on land application operation and maintenance practices related to the discharge of wastewater and residual solids.

Currently, most air basins in California are in non-attainment for ozone (i.e., the standard was violated during the latest three-year period), and only a small portion of the Mojave Desert Air Basin (in San Bernardino County) is in non-attainment for H<sub>2</sub>S emissions (California Air Resources Board [CARB], 2012). Although CH<sub>4</sub> is acknowledged to be a GHG and a significant contributor to climate change, it is not a criteria pollutant regulated by air basins in California. Other sources of air emissions, such as transportation, industrial activities, and power generation, are the major contributors to significant cumulative air quality impacts.

**Conclusion:** The proposed Conditional Waiver would not directly generate greenhouse gases. Based on the restrictions on the annual volume of discharges to land that will be allowed under the Waiver, the discharges will contribute a small amount of GHGs when considered both individually and cumulatively, so the impact is generally **less than significant**. Existing facilities that expand or new facilities that are constructed after adoption of the proposed Conditional Waiver are subject to local agency approvals, permits, and possibly a project-level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

#### 4.4.8 Hazards and Hazardous Materials

| ENVIRONMENTAL FACTOR  | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|---|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project:  |                                |  |                                     |                          |
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

| ENVIRONMENTAL FACTOR<br>Would the project:   | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or to the environment?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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 a public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

a-h) The Waiver would not directly result in potential impacts associated with hazards and hazardous materials. Although some of the facilities regulated under the waiver may store and use some hazardous materials, the Waiver would not regulate the storage or use of these materials, nor would it authorize on-site disposal of them. With regard to hazards associated with siting in the vicinity of other hazards, the Waiver would not authorize siting of the facilities whose waste discharges to land would be regulated under the waiver because such determinations are within the purview of the local planning and building departments.

**Conclusion:** The proposed Conditional Waiver would not directly cause potential hazards or impacts associated with hazardous materials, so the impact is **less than significant**. Existing facilities that expand or new facilities that are constructed after adoption of the proposed Conditional Waiver are subject to local agency approvals, permits, and possibly a project-level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

#### 4.4.9 Hydrology and Water Quality

| ENVIRONMENTAL FACTOR<br>Would the project:                              | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact                |
|---|--------------------------------|--|------------------------------|--------------------------|
| a) Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                | <input type="checkbox"/>     | <input type="checkbox"/> |

| ENVIRONMENTAL FACTOR<br>Would the project:  | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|---|--------------------------------|--|-------------------------------------|-------------------------------------|
| 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)? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 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?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 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?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 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?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| f) Otherwise substantially degrade water quality?   | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 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?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 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?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| j) Inundation by seiche, tsunami, or mudflow?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

#### 4.4.9.1 Water Quality Impacts (a,f)

The proposed Conditional Waiver would not directly result in potential water quality impacts, but existing facilities that expand or new facilities that are constructed after adoption of the proposed Conditional Waiver might cause water quality impacts. Specifically, the discharges could degrade groundwater quality with:

- Salinity constituents (primarily in the form of fixed dissolved solids (FDS)<sup>7</sup> with significant contributions from sodium, chloride, and sulfate);
- Nutrients such as nitrate; and
- Metals dissolved from site soils by reducing conditions (typically iron and manganese, as well as arsenic in some areas).

Surface water quality could also be affected by discharges of storm water runoff from land application areas, which could contain BOD, nitrogen, and salts. Iron, manganese and arsenic

<sup>7</sup> Because of organic matter in wastewater (especially high strength wastewater), TDS is not the best indicator of potential impacts from salinity constituents. . In such cases, FDS results are used to gauge the potential water quality impacts from the discharge of waste because the FDS test method will burn off the organic matter. .

are less likely to impact surface water quality because the chemical reactions that liberate the metals from the soil will mostly take place below the ground surface

The technical basis the proposed Conditional Waiver is typical wastewater characteristics for wineries and cannery-type food processors, typical wastewater generation rates per ton of grapes crushed (for wineries), typical residual solids loading rates (for wineries), typical character of residual solids from cannery-type food processing facilities, and published references that describe best management practices for land discharge to minimize the threat to water quality<sup>8,9</sup>.

The liquid and solid waste streams that would be regulated under the proposed waiver are similar in chemical character:

- They may contain high concentrations of biodegradable organic matter (measured as biochemical oxygen demand or BOD) on the order of 1,000 to 3,000 mg/L.
- They may contain high concentrations of nitrogen on the order of 100 mg/L. Initially most of the nitrogen is in organic form, but much of that will readily convert to ammonia and then nitrate when adequate oxygen is present.
- They may contain other salts that were taken up by the crop from the soil and irrigation water used to grow the crop. These typically include sodium, chloride, potassium, phosphorus, carbonate, sulfate, and bicarbonate. Some additional salinity may be added by processing equipment cleaning and sanitation solutions. In order to differentiate between true salts and dissolved organic matter, fixed dissolved solids (FDS) is used as the best salinity indicator for wastewaters with significant BOD.
- They may contain minor amounts of other cleaning solution chemicals, but are unlikely to significant concentrations of toxic constituents.

The characteristics of food processing residual solids vary greatly depending on the commodity and the nature of the processing operation, and there is little information available to quantify the BOD and nitrogen content for the various types of residual solids. The following table provides a qualitative description of the most common food processing residuals.

| Process and Residual Solids Type   | Moisture Content | Carbon to Nitrogen Ratio <sup>1</sup> | Relative Putrescibility <sup>2</sup> |
|------------------------------------|------------------|---------------------------------------|--------------------------------------|
| Winery                             |                  |                                       |                                      |
| Pomace (leaves, stems, skins)      | Low              | High                                  | Low                                  |
| Lees (settled solids)              | High             | Moderate                              | High                                 |
| Cannery (culls, screenings)        | High             | Moderate                              | High                                 |
| Olive Oil Processor (olive pulp)   | High             | Moderate                              | High                                 |
| Nut Huller (nut hulls)             | Moderate         | High                                  | Low                                  |
| Seed Processor (fruit pulp, skins) | High             | Moderate                              | High                                 |

<sup>1</sup> High carbon to nitrogen ratio (C:N) is associated with slower rates of biodegradation and mineralization of organic nitrogen. When combined with low moisture content, high C:N results in a low rate of decay, which results in low nuisance potential and slow conversion of organic nitrogen to nitrate.

<sup>8</sup> Manual of Good Practice for Land Application of Food Processing/Rinse Water, California League of Food Processors, 2007.

<sup>9</sup> Draft Sustainable Winery Practices for Process Water Management, Wine Institute, 2007

<sup>2</sup> Putrescibility is a relative measure of the rate of biodegradation, which governs the potential for reducing conditions and nuisance conditions (odor and flies). It is usually associated with high moisture content and/or larger particle size, which restricts the transfer of atmospheric oxygen into the waste mass.

**Salinity Constituents** - Because salts occur naturally in all waters, and because the naturally occurring salt concentrations vary depending on the water supply, it is not practical to define saline waste region-wide as that which exceeds a certain FDS<sup>10</sup> concentration. Generally speaking, saline waste is that for which the FDS concentration is more than 300 mg/L higher than the TDS concentration of the water supply. Although there are many individual ions that can impact the beneficial uses of groundwater, nitrate, sodium and chloride are the predominant salts of concern in the Central Valley Region.

Many surface waters and local groundwater supplies in the Central Valley region have been degraded with salt. In some areas, the high salinity is naturally occurring, but in many areas it is due to the acts of man. In 2006, the Central Valley Water Board, the State Water Board, and stakeholders began a joint effort to address salinity and nitrate problems in the region and adopt long-term solutions that will lead to enhanced water quality and economic sustainability. Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) is a collaborative basin planning effort aimed at developing and implementing a comprehensive salinity and nitrate management program. Until the program culminates in Basin Plan amendments that address the region-wide salinity issues, it is not reasonable to require dischargers to take extraordinary measures to eliminate salt from wastes discharged to land. However, the Board expects that all regulated dischargers will make a concerted effort to reduce salinity through source control, containment, and conventional treatment to the maximum practical extent.

Saline wastewaters can be associated with use of ion exchange water softening systems used to treat hard water, which adds sodium and chloride. Saline wastewaters can also be associated with industrial boilers, evaporative cooling systems, and reverse osmosis water purification systems, which concentrate all of the salts present in the source water. The degree of concentration varies depending on the efficiency of the systems and operational practices. Food processors and wineries often use caustic cleaning solutions and/or sodium hypochlorite for equipment cleaning and sanitation, which adds sodium and chloride.

Sodium is commonly present in natural waters and many wastewaters, as noted above. The movement of dissolved sodium and other cations in soil depends in part on the soil's cation exchange capacity (CEC). CEC is generally higher in soils with higher clay and/or humus content, and CEC increases with increases in pH. Cations such as sodium can adsorb to negatively charged inorganic and organic soil particles. Once adsorbed, the minerals are not easily lost during leaching, but can be replaced or exchanged by other cations. Excessive sodium applications to cropland, if not leached, can cause loss of soil productivity due to soil sodicity. Sodium adsorption ratio (SAR) is a measure of the degree to which a soil's cation exchange capacity has been exhausted. For some food processing and winery wastewater, sodium concentrations may be reduced or controlled by changing from sodium-based cleaning solutions (such as sodium hydroxide) to potassium-based solutions (such as potassium hydroxide). Because potassium is a plant nutrient, land application systems can be designed to maximize potassium uptake by the crop.

Chloride is an anion that moves readily through the soil column with percolation. It will not adsorb to soil as sodium can, and crop uptake of chloride is minimal for most crops. However, plants do take up chloride and excessive chloride in the soil and/or irrigation water can be toxic to crops. Crop sensitivity to chloride varies greatly, but leaching is often used to control chloride

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<sup>10</sup> Fixed Dissolved Solids (FDS) is the most reliable indicator of overall salinity for wastewater that contains high level of degradable organic matter (measured as BOD) because the test method burns off the organic matter leaving only the salts. . The TDS test is designed only to remove water and other volatile waste constituents.

to keep crop land in production. Leaching, whether intentional or not, can degrade groundwater quality and may cause water quality objectives for chloride to be exceeded.

**Nutrients** – Discharges of wastewater and residual solids regulated under the Waiver may contain high levels of total Kjeldahl nitrogen (TKN), which is a measure of organic nitrogen and ammonia nitrogen. Because nitrogen is an essential plant nutrient, the threat to groundwater quality can be minimized through controlled use of the waste to irrigate crops at agronomic rates for nitrogen. Because nitrate and nitrate precursors are common constituents in food processing wastewater, either treatment to reduce the nitrogen content or reuse for crop irrigation are important methods to prevent exceedance of the water quality objective for nitrate in groundwater.

Unless groundwater is very shallow, groundwater degradation with nitrogen species such as ammonia and nitrate can be prevented by minimizing percolation below the root zone of the crops and ensuring that the total nitrogen load does not exceed crop needs over the course of a typical year. Where there is sufficient unsaturated soil in the vadose zone, excess nitrogen can be mineralized and denitrified by soil microorganisms.

**Metals** – Discharges of wastewater and residual solids regulated under the Waiver may contain concentrations of readily degradable organic matter that exceed 500 mg/L biochemical oxygen demand (BOD). Excessive application of high organic strength wastewater to land can create objectionable odors and degradation of underlying groundwater with metals, as discussed below. Such groundwater degradation can be prevented or minimized through implementation of best management practices which include planting crops to take up plant nutrients and maximizing oxidation of BOD to prevent nuisance conditions.

Excessive application of BOD to soil can deplete oxygen in the vadose zone and lead to anoxic conditions. At the ground surface, this can result in nuisance odors and fly-breeding. When insufficient oxygen is present below the ground surface, anaerobic decay of the organic matter can create reducing conditions that convert metals that are naturally present in the soil as relatively insoluble (oxidized) forms to more soluble reduced forms. This condition can be exacerbated by acidic soils and/or acidic wastewater. If the reducing conditions do not reverse as the percolate travels down through the vadose zone, these dissolved metals (primarily iron, manganese, and arsenic) can degrade shallow groundwater quality. Many aquifers contain enough dissolved oxygen to reverse the process, but excessive BOD loading over extended periods may cause beneficial use impacts associated with these metals.

Typically, irrigation with high strength wastewater results in high BOD loading on the day of application. It is reasonable to expect some oxidation of BOD at the ground surface, within the evapotranspiration zone and below the root zone within the vadose (unsaturated) zone. The maximum BOD loading rate that can be applied to land without creating nuisance conditions or leaching of metals can vary significantly depending on soil conditions and operation of the land application system.

*Pollution Abatement in the Fruit and Vegetable Industry*, published by the United States Environmental Protection Agency, cites BOD loading rates in the range of 36 to 600 lb/acre-day to prevent nuisance, but indicates the loading rates can be even higher under certain conditions. The studies that supported this report did not evaluate actual or potential groundwater degradation associated with those rates. There are few studies that have attempted to determine maximum BOD loading rates for protection of groundwater quality. Those that have been done are not readily adapted to the varying soil, groundwater, and climate conditions that are prevalent throughout the region.

The California League of Food Processors' *Manual of Good Practice for Land Application of Food Processing/Rinse Water* proposes risk categories associated with particular BOD loading rate ranges as follows:

Risk Category 1: (less than 50 lb/ac/day; depth to groundwater greater than 5 feet)  
Indistinguishable from good farming operations with good distribution important.

Risk Category 2: (less than 100 lb/ac/day; depth to groundwater greater than 5 feet)  
Minimal risk of unreasonable groundwater degradation with good distribution more important.

Risk Category 3: (greater than 100 lb/ac/day; depth to groundwater greater than 2 feet)  
Requires detailed planning and good operation with good distribution very important to prevent unreasonable degradation, as well as use of oxygen transfer design equations that consider site-specific application cycles and soil properties and special monitoring.

The *Manual of Good Practice* recommends allowing a 50 percent increase in the BOD loading rates in cases where sprinkler irrigation is used, but recommends that additional safety factors be used for sites with heavy and/or compacted soils.

Although it has not been subject to a scientific peer review process, the *Manual of Good Practice* provides science-based guidance for BOD loading rates that, if fully implemented, are considered a best management practice to prevent groundwater degradation due to reduced metals.

An estimate of hydraulic and waste constituent mass loadings that would be allowed under Tier 3 is provided in the table below.

|                                     |           |                          |
|-------------------------------------|-----------|--------------------------|
| <b>Annual Wastewater Volume</b>     | 1,000,000 | gallons/year             |
| <b>Land Application Area</b>        |           |                          |
|                                     | 1         | acre per 100,000 gallons |
| <b>Wastewater Hydraulic Loading</b> |           |                          |
|                                     | 3.7       | inches/year              |
| <b>Constituent Concentrations:</b>  |           |                          |
| Biochemical Oxygen Demand (BOD)     | 2,000     | mg/L                     |
| Fixed Dissolved Solids (FDS)        | 1,000     | mg/L                     |
| Total Nitrogen                      | 100       | mg/L                     |
| <b>Wastewater Mass Loading:</b>     |           |                          |
| BOD                                 | 1,700     | lb/ac/year               |
| FDS                                 | 830       | lb/ac/year               |
| Total Nitrogen                      | 83        | lb/ac/year               |

For wastewater discharges only:

- The maximum allowable hydraulic wastewater loading of 3.7 inches per year would require significant supplemental irrigation water to sustain any crop, including xeriscape landscaping. Estimated annualized dilution ratios for supplemental irrigation water would vary widely, but are estimated to be 4:1 (minimum) to 20:1 (maximum). Even if the maximum allowed volume is generated and land applied over a short processing season of three months, the wastewater hydraulic loading would be trivial (about 1.2 inches per month).
- The estimated maximum annual BOD loading rate would be high enough to cause nuisance and or temporary reducing conditions in surficial soils if it were applied all at one time to poorly drained soils. However, it is estimated that wastewater applications would typically be divided into at least four irrigation events at least two weeks apart, which would result in a

maximum daily BOD loading of 420 lb/ac/day and an irrigation cycle average BOD loading of 30 lb/ac/day. These rates would put the discharge in California League of Food Processors (CLFP) Risk Category 1, which CLFP describes as a “de minimus” loading rate that is indistinguishable from common agronomic conditions when the load is evenly distributed across the land application area<sup>1</sup>.

- The estimated maximum FDS loading rate is lower than most food processing discharges regulated under individual WDRs and is roughly equivalent to the FDS load associated with applying 9.2 inches of high quality irrigation water with a TDS concentration of 400 mg/L.
- The estimated annual nitrogen loading is substantially lower than the requirements of most crops and typical landscaped areas with the possible exception of mature xeriscape and mulched native plantings.

Land application of residual solids would add to the BOD and nitrogen loadings discussed above. Non-putrescible solids would continue to be subject to the requirement to use them at agronomic rates and in accordance with best management practices. Additionally, the proposed Conditional Waiver would continue the requirement to evenly apply putrescible residual solids at a rate that does not exceed the agronomic rate for nitrogen or two inches, whichever is less. The proposed Conditional waiver would also continue the discharge area setbacks imposed by the current waiver.

Discharges under Tiers 1 and 2 might have slightly higher waste constituent loadings because there is no minimum land application area requirement. However, the total mass of waste constituents discharged would be one to two orders of magnitude less than Tier 3 because of the limits on the total volume discharged per year. Additionally, the much smaller land application area that is allowed for Tiers 1 and 2 will result in a very small source area from which waste constituents could percolate to the water table.

Improperly managed land application can also degrade surface water quality with the same constituents. Such impacts result when waste is directly discharged to surface waters intentionally or as a result of uncontrolled irrigation and land application practices. Residual solids and wastewater constituents could also be transported to surface water via storm water runoff.

***Mitigation Incorporated-*** The use of best management practices, including those developed by the food processing industry, has been shown to effectively prevent significant impacts to groundwater and surface water quality, and such impacts are particularly easy to control or mitigate with small discharges. The underlying principles of the best management practices are:

- Apply nutrient at rates consistent with the needs of the crop or landscape plantings;
- Prevent soil saturation with wastewater for prolonged periods,
- Distribute the discharged waste evenly over a large area to maximize contact with atmospheric oxygen;
- Prevent the use of unlined ponds for disposal of waste; and
- Minimize the use of unlined ponds for short term storage. Where such ponds must be used, limit the depth of water and ensure that there is a significant thickness of soil below the base of the pond before shallow groundwater.

The proposed Conditional Waiver includes several prohibitions to mitigate the potential for water quality impacts to occur to a less-than-significant level:

1. The proposed Conditional Waiver prohibits the discharge of wastewater and residual solids to surface water or surface water drainage courses, including natural streams, lakes,

wetlands, creeks, constructed agricultural drains, agricultural dominated waterways, irrigation and flood control channels, or other non-stream tributaries.

2. The proposed Conditional Waiver cannot be used to regulate the discharge of wastewater and residual solids associated with slaughterhouses, other meat processing operations, and pistachio hulling operations. Waste associated with these operations will likely be of much higher organic strength and salinity than the typical waste character described above.
3. The proposed Conditional Waiver prohibits the discharge of stillage, water softener regeneration brine, reverse osmosis brine, boiler blowdown, and other high salinity wastes. Stillage contains extremely high levels of BOD and salinity, and the other waste streams typically contain very high levels of salinity constituents.
4. The proposed Conditional Waiver prohibits the discharge of process wastewater to septic systems. Septic tanks are designed to settle organic matter which would otherwise promote formation of sludge and/or bacterial slimes within subsurface disposal systems, causing failure of the disposal system and surfacing of wastewater. However, septic tanks are designed to handle domestic wastewater and are based on the unique physical characteristic of sewage. Food processing wastewater solids may not settle within a septic tank and the occasional high-flow event common to food processors and wineries can easily flush settled solids into the leachfield. Septic systems are therefore not a suitable means of disposal for the waste types that will be regulated under the Waiver.
5. The proposed Conditional Waiver prohibits the use of ponds for wastewater treatment, storage, or disposal, except for the seasonal temporary use of shallow storage ponds used for nut hulling wash water. The weight of the water column in unlined ponds forces deep percolation of dissolved waste constituents, thereby reducing the potential for removal of organic matter and nitrogen through natural biological processes. Although nut hulling wash water has not been chemically characterized to the extent that winery and other food processing wastewaters have, information provided by the industry<sup>11</sup> indicates that the level of degradable organic matter and nitrogen in nut hulling wastewater may be significantly lower. The waiver will therefore allow temporary use of unlined ponds only for these wastewaters. Upon completion of waste characterization studies for this industry, the Waiver may be reopened and revised if the waste character indicates that the mitigation measure described below is not adequate to reduce the potential impacts associated with use of unlined ponds to less than significant.

The proposed Conditional Waiver also imposes certain discharge prohibitions and conditions that require the use of best management practices for the land discharge of organic wastewaters and residual solids. These practices have been shown to be effective in preventing unreasonable degradation of groundwater quality at numerous large facilities regulated by the Central Valley Water Board under individual WDRs. The following conditions would be imposed by the proposed Conditional Waiver to mitigate the potential for water quality impacts:

1. Process waste must be applied to cropland or landscaped areas owned by the regulated discharger only. This will ensure that the regulated discharger will maintain full control of the wastes at all times.
2. Ponds may be used only for temporary storage of nut hulling wash water between August 1<sup>st</sup> and December 31<sup>st</sup> each year if all of the following conditions are met:
  - a. Ponds must be operated and maintained to ensure that there is no discharge to surface water.
  - b. The water table must be at least 5 feet below the base of any pond.

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<sup>11</sup> Western Agricultural Processors Association, 2014.

- c. The pond water depth must be no greater than 5 feet at any time in any pond.
  - d. A minimum of one feet of freeboard as measured from the water surface in any pond to the surrounding grade must be maintained at all times.
  - e. The discharger must begin land applying wastewater from each pond as soon as practical to minimize the duration of pond use and depth of water.
  - f. Discharge to any pond must cease and all ponds must be completely drained by December 31<sup>st</sup> each year. Draining includes removal of all water, visible residual solids and other organic matter.
  - g. Ponds must be backfilled with soil, or runoff controls must be installed to prevent storm water runoff from entering the pond between December 31<sup>st</sup> each year and June 30<sup>th</sup> of the following year.
3. For Tier 3 only, The Discharger must maintain and use at least one acre of cropland and/or landscaped area for each 100,000 gallons of wastewater and/or equivalent mass of residual solids applied to land each year.
  4. Objectionable odors due to the storage and/or land application of process wastewater or residual solids must not be perceivable beyond the limits of the property owned by the Discharger.
  5. The Discharger must take all reasonable steps to reduce the salinity of the wastewater that is applied to land. These steps must include, at a minimum:
    - a. Minimize the use of salt-containing additives in the process water and minimize the discharge of chemicals into the wastewater stream;
    - b. Minimize the use of non-biodegradable cleaners and other chemicals; and
    - c. When feasible, remove dry or solid wastes from equipment and floors before washing to prevent introduction of soluble waste constituents into the wastewater conveyance system.
  6. If wastewater is stored on-site prior to land application or off-site for disposal:
    - a. Wastewater must be fully contained in one or more tanks so that the waste does not contact the ground.
    - b. Wastewater must be removed from storage tanks before capacity is reached and land applied or transported off-site for disposal immediately upon removal.
  7. If wastewater is applied to land:
    - a. Wastewater must not be applied to land during rainfall or when the ground is saturated.
    - b. Wastewater must be applied to cropland or landscaped areas at a rate consistent with the water needs of the crop or vegetation grown in the land application area and at rates that do not exceed crop demand for nitrogen, including nitrogen loads from all sources (e.g., wastewater, residual solids, manure, and commercial fertilizer).
    - c. Wastewater must not be applied within 25 feet of a water supply well.
    - d. Wastewater must not be applied within 25 feet of a surface water or surface water drainage course unless the land application area is graded or bermed to prevent discharge of runoff into the drainage course.
    - e. Wastewater must be evenly applied across the entire land application area.

8. If residual solids are temporarily stored on-site prior to land application or off-site for disposal:
  - a. Residual solids must be fully contained so that the waste does not contact the ground.
  - b. Residual solids must be stored such that any leachate or storm water that contacts the waste is managed as wastewater in accordance with the conditions of this Order.
  - c. Residual solids drying and/or storage areas must be designed, constructed, operated, and maintained to prevent the washout or inundation due to floods with a 100-year return frequency.
9. Residual solids must be removed from storage tanks or areas before capacity is reached and land-applied or transported off-site for disposal immediately upon removal.
10. If residual solids are applied to land:
  - a. Land application methods, rates, and management practices must be in accordance with those proposed in the Report of Waste Discharge unless the Discharger finds that specific changes are necessary to ensure continued compliance with the conditions of the Waiver.
  - b. If residual solids that contain free liquids are applied to land, the Discharger must ensure that all liquid is absorbed into the soil within 12 hours of application and that no liquid runs off the application area.
  - c. Residual solids must be applied to land at rates that do not exceed crop demand for plant nutrients based on the nutrient content of the solids, the nutrient requirements of the crops or other vegetation grown on the land application area, and the amount of other forms of fertilizer used.
  - d. Residual solids must be evenly applied across the entire land application area.
  - e. Grape stems or other dry, nonputrescible<sup>12</sup> matter (e.g., dry nut hulls) may be segregated from the rest of the residual solids and applied to the Discharger's property, including dirt roads, for erosion or dust control. However, such waste must be applied in a manner that prevents displacement by runoff into surface waters during storm events.
  - f. Any on-site composting must comply with the composting regulations found in Title 14 of the California Code of Regulations, Division 7, Chapter 3.1.
11. Land application of putrescible solids must be conducted in accordance with the following requirements, which are in addition to those in Specific Condition C.16 above:
  - a. Residual solids must not be applied within 25 feet of a surface water drainage course unless the land application area is graded or bermed to prevent discharge of runoff into the drainage course.
  - b. Residual solids must not be applied within 25 feet of a water supply well.
  - c. Residual solids must not be applied to land during rainfall or when the land application area is saturated.
  - d. The total annual loading rate for putrescible residual solids must not exceed the rate specified above for nonputrescible solids, or a total thickness of two inches, whichever is more restrictive.

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<sup>12</sup> For the purpose of this Waiver, putrescible solids are residual solids that contain readily decomposable organic matter and moisture such that they are likely to create objectionable odors and attract insects under ambient outdoor conditions.

**Conclusion:** The mitigation measures described above ensure that the discharges will pose a low threat to groundwater and surface water quality and will reduce the potential for degradation of groundwater and surface water quality and exceedance of a water quality objective in groundwater and surface water to **less than significant with mitigation incorporated**.

**4.4.9.2 Hydrology Impacts (b – j)**

The proposed Conditional Waiver itself would not directly increase impervious surface area, create housing, create structures within a 100-year floodplain, or expose people or structures to risk of loss, injury, or death as a result of levee or dam failure, or inundation by seiche, tsunami, or mudflow. The Waiver would not authorize siting of the facilities whose waste discharges to land would be regulated under the waiver because such decisions are within the purview of the local planning and building departments.

**Conclusion:** The adoption of the proposed Conditional Waiver would result in **less than significant impacts** associated with hydrologic changes. Existing facilities that expand or new facilities that are constructed after adoption of the proposed Conditional Waiver are subject to local agency approvals, permits, and possibly a project-level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

**4.4.10 Land Use and Planning**

| ENVIRONMENTAL FACTOR   | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project:   |                                |  |                                     |                          |
| a) Physically divide an established community?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with any applicable land use plan, 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? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

a-c) The proposed Conditional Waiver itself would not cause potential land use impacts. Facilities whose discharges of waste would be regulated under the Waiver would be required to comply with applicable land use plans, policies, and regulations by local agencies, including habitat conservation areas or natural community conservation plan areas.

**Conclusion:** The proposed Conditional Waiver itself would not affect land use or planning, so the impact is **less than significant**. Existing facilities that expand or new facilities that are constructed after adoption of the proposed Conditional Waiver are subject to local agency approvals, permits, and possibly a project-level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

#### 4.4.11 Mineral Resources

| ENVIRONMENTAL FACTOR<br>Would the project:   | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact                           |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| a) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?                          | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

a, b) The proposed Conditional Waiver would have no direct effects on mineral resources. It will be used to regulate low volume discharges of wastewater on small land areas that are typically located in agricultural areas and a significant adverse effect on mineral resources is unlikely.

**Conclusion:** The adoption of the proposed Conditional Waiver would have a **less than significant impacts** to mineral resources.

#### 4.4.12 Noise

| ENVIRONMENTAL FACTOR<br>Would the project result in:   | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | 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?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Exposure of persons to, or generation of, excessive ground borne vibration or ground borne noise levels?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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 in or working in the project area to excessive noise levels? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing in or working in the project area to excessive noise levels?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

The Waiver would not directly cause potential noise impacts. However, the facilities that would be regulated under the waiver may cause some noise impact from either construction or operation of facilities. The Waiver would not authorize the construction of facilities in an area within an airport land use plan or in the vicinity of a private airstrip; and such decisions are within the purview of the local planning and building departments.

**Conclusion:** The proposed Conditional Waiver would not directly cause noise impacts, so the impact is **less than significant**. Existing facilities that expand or new facilities that are constructed after adoption of the proposed Conditional Waiver are subject to local agency

approvals, permits, and possibly a project-level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

#### 4.4.13 Population and Housing

| ENVIRONMENTAL FACTOR   | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact                           |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| Would the project:   |                                |  |                              |                                     |
| a) Induce substantial population growth in an area either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

(a-c) A project that removes an obstacle to growth is generally considered growth inducing. The proposed Conditional Waiver is not growth-inducing, as it is a regulatory mechanism to regulate discharges from what will typically be small operations occupying small portions of rural or agricultural properties.

**Conclusion:** The proposed Conditional Waiver will cause **less than significant impacts** to population and housing.

#### 4.4.14 Public Services

| ENVIRONMENTAL FACTOR  | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact                           |
|---|--------------------------------|--|------------------------------|-------------------------------------|
| Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service rations, response times or other performance objectives for any of the public services: |                                |  |                              |                                     |
| a) Fire protection?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| b) Police protection?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| c) Schools?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| d) Parks?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| e) Other public facilities?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

a–e) The proposed Conditional Waiver would not add new residents or change land uses, therefore would not generate a demand for new fire protection, police protection, schools, parks, or related services. No additional public services would be required.

**Conclusion:** The proposed Conditional Waiver will cause **less than significant impacts** to public services.

#### 4.4.15 Recreation

| ENVIRONMENTAL FACTOR   | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project:   |                                |  |                                     |                          |
| 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? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?                        | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

a–e) The proposed Conditional Waiver would not add new residents or change land uses, therefore would not generate a demand for new parks or related recreational facilities or services. No additional public services would be required.

**Conclusion:** The proposed Conditional Waiver will cause **less than significant impacts** on recreation.

#### 4.4.16 Transportation / Traffic

| ENVIRONMENTAL FACTOR   | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project:   |                                |  |                                     |                          |
| a) Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Result in inadequate emergency access?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

a – f) The proposed Conditional Waiver would not result in potential adverse impacts to transportation services or facilities. Construction of new or expanding facilities may have some small but temporary impact on traffic from mobilization of earth-moving equipment and materials to and from the sites. Long-term operation of a small food processing facility or winery is not a significant trip-generating activity, unless the facility is designed to accommodate public events.

**Conclusion:** The proposed Conditional Waiver would result in **less than significant impacts** on transportation or traffic. Existing facilities that expand or new facilities that are constructed after adoption of the proposed Conditional Waiver are subject to local agency approvals, permits, and possibly a project-level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

#### 4.4.17 Utilities and Service Systems

| ENVIRONMENTAL FACTOR   | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project:   |                                |  |                                     |                          |
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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 impacts?                           | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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 impacts?                                    | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g) Comply with federal, state, and local statutes and regulations related to solid waste?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

a-e) The proposed Conditional Waiver itself would not have the potential to adversely affect the capacity of public water or wastewater treatment facilities or storm water drainage; and expanding or new facilities that would be regulated under the Waiver are not unlikely to impact such utilities.

f, g) The proposed Conditional Waiver would not cause potential adverse impacts to solid waste services or landfill facilities. Facilities regulated under the Waiver may generate some solid waste that requires off-site disposal.

**Conclusion:** The proposed Conditional Waiver will cause **less than significant impacts** to water, wastewater, storm water, and solid waste services and facilities. Existing facilities that expand or new facilities that are constructed after adoption of the proposed Conditional Waiver are subject to local agency approvals, permits, and possibly a project-level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

#### 4.4.18 Mandatory Findings of Significance

| ENVIRONMENTAL FACTOR   | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| a) Does the project have the potential 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 the major periods of California history or prehistory? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

a) The Biological Resources section of this initial study concludes that the proposed Conditional Waiver in itself would not directly create potential impacts to biological resources. Expanding or new facilities whose discharges would be regulated under the Waiver are subject to local planning policies and building permits and may be required to undergo project-level CEQA review, at which time potential adverse impacts and appropriate mitigation measures will be evaluated and implemented in accordance with local, state, and federal requirements.

Similarly, the Cultural Resources section of this initial study concludes that the proposed Conditional Waiver in itself would not directly create potential impacts to Cultural resources. Expanding or new facilities whose discharges would be regulated under the Waiver are subject to local planning policies and building permits and may be required to undergo project-level CEQA review, at which time potential adverse impacts and appropriate mitigation measures will be evaluated and potential impacts to cultural resources would be prevented or mitigated to a less than significant level.

Based upon these analyses, the proposed project will not: degrade the quality of the environment; substantially reduce the habitat of 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's history or prehistory.

b) The Proposed Project in itself would not result in cumulative impacts. The project is a regulatory mechanism that will apply to facilities whose creation will be subject to local planning policies and building permits and may be required to undergo project-level CEQA review.

c) The Proposed Project would result in less than significant impacts on the environment, wildlife, and human beings.

**5. DETERMINATION**

On the basis of this Initial Study:

I find that the proposed project, including mitigation measures that were a part of the project as initially proposed, **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

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I find that although the project, as initially proposed, could have a significant effect on the environment, there will not be a significant effect in this case because subsequent revisions in the project have been made by or agreed to by the Board. A **NEGATIVE DECLARATION** will be prepared.

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I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

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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.

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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.

Original signed by Robert D. Busby

(Name)

29 October 2014

Date

Supervising Engineering Geologist

(Title)