

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER \_\_

WASTE DISCHARGE REQUIREMENTS

FOR  
SALAD COSMO U.S.A. CORPORATION  
DIXON SPROUT FACILITY  
SOLANO COUNTY

The California Regional Water Quality Control Regional Board, Central Valley Region, (hereafter Central Valley Water Board) finds that:

1. On 12 August 2012, Salad Cosmo U.S.A. Corporation (hereafter "Discharger") submitted a Report of Waste Discharge (RWD) that describes a planned expansion of a seed sprouting and packaging facility (the "Facility"). The Discharger submitted additional information to augment the RWD on 21 and 23 January 2013.
2. The Discharger owns and operates the Facility and a land application area (LAA), and is responsible for compliance with these Waste Discharge Requirements (WDRs).
3. The Facility and LAA are located at 5944 Dixon Avenue West in Dixon (Section 21, T7N, R1E, MDB&M). The Facility and LAA occupy Assessor's Parcel Numbers (APN) 109-030-03, 109-030-04, and 109-060-01, as shown on Attachment A, which is attached hereto and made part of this Order by reference.
4. WDRs Order R5-2003-0159, adopted by the Central Valley Water Board on 17 October 2003, prescribes requirements for the Facility. WDRs Order R5-2003-0159 allows a monthly average flow of up to 280,000 gallons per day (gpd) of process wastewater. The Discharger proposes to expand the Facility. The expanded facility will generate 408,000 gpd of process wastewater. The Discharger also proposes to add an additional wastewater storage pond to accommodate the expansion. WDRs Order R5-2003-0159 will be rescinded and replaced with this Order.

**Existing Facility and Discharge**

5. The Facility includes a 54,000 square-foot process building for sprouting and packaging, a 7-acre wastewater storage pond, and an associated LAA. The Facility comprises three parcels totaling 232 acres as shown on Attachment A. The process buildings and wastewater storage ponds are located on Parcel 2. The remaining area of Parcel 2, and 22 acres of Parcel 3, contains the LAA, which is used to grow crops irrigated with wastewater. Parcel 1 and the remaining area of Parcel 3 are also used to grow crops, but these areas are irrigated with Solano Irrigation District water, not wastewater. The Facility's site plan is depicted in Attachment B, which is attached hereto and made part of this Order by reference.

6. The Facility has been in operation since 1998, and produces sprouts that are marketed for restaurant use and retail sale through grocery stores. Imported seeds are received at the loading dock and are stored indoors where they are stockpiled prior to sprouting.
7. Most seeds are sprouted hydroponically in climate-controlled grow rooms, while radish seeds are sprouted in a greenhouse. Seeds sprouted in grow rooms are placed in large metal-wheeled bins. Source water is added to the bins to start germination and as needed during sprouting. When the sprouts have reached the desired size, they are washed with chilled source water. Sprouts are then packaged and moved to a refrigerated delivery staging area, where boxes are loaded onto trucks for transport.
8. The Facility is in operation 24 hours per day year round, including weekends, and the types of seeds being sprouted depend on market demand. The Facility obtains its source water from an onsite metered groundwater well. Source water is used for seed rinsing and washing and for equipment wash down. The Discharger states that wastewater flows are closely approximated by the source water meter readings, since consumptive use is negligible. The following table summarizes recent wastewater flow rates.

Flow Parameter	Daily Wastewater Flow gallons per day (gpd) <sup>1</sup>
Range of Monthly Average Flows (January 2011 through December 2012)	196,500 to 253,500
2011 Average Daily Flow	230,900
2012 Average Daily Flow	213,200

<sup>1</sup> Wastewater flows are currently estimated by source water flow meter readings.

9. Sodium hypochlorite is added to the source water to create a 1.5 parts per million (ppm) sodium hypochlorite solution, which is used for watering the sprouts and washing down the Facility. [Approximately 120 gallons of 2 percent calcium hypochlorite solution is used to soak the seeds prior to sprouting.](#) After soaking, the seeds are rinsed with source water. No nutrients are added to the source water.
10. Process wastewater is collected through a series of floor drains. Wastewater from the sprout growing rooms and packaging area is routed to a rotary screen to remove green solids, which are primarily discarded sprouts. Between January 2011 and December 2012, the Facility averaged 450 pounds of green waste per day with a range of 260 to 610 pounds per day.

11. Prior to discharge into the wastewater storage ponds, screened wastewater is filtered through one of two 80-foot long trenches filled with large river rock. The trenches are alternated for cleaning as needed to minimize microbial growth on the rocks. Wastewater from the greenhouse is sent directly to the wastewater storage pond. The following table summarizes recent source water and wastewater quality.

Constituent	Units	Source Water <sup>1</sup>	Wastewater <sup>2</sup>	MCL
BOD <sub>5</sub>	mg/L	--	13.0	--
pH	Standard Units	--	7.4	--
TDS	mg/L	294	359	500, 1,000, 1,500 <sup>4</sup>
Nitrate (as nitrogen)	mg/L	3.4	2.2	10 <sup>3</sup>
Total Kjeldahl nitrogen	mg/L	--	15.4	--
Chlorine	mg/L	--	<0.01	4 <sup>3</sup>
Trihalomethanes	µg/L	< 4.0	28.9	80 <sup>3</sup>
Bromodichloromethane	µg/L	< 1.0	< 1.5	--
Bromoform	µg/L	< 1.0	< 1.0	--
Chloroform	µg/L	< 1.0	28.4	--
Dibromochloromethane	µg/L	< 1.0	< 0.5	--

<sup>1</sup> Typical source water quality from analytical results obtained in May 2012.

<sup>2</sup> Average wastewater quality to the wastewater storage pond averaged from August 2008 through November 2012.

<sup>3</sup> Primary Maximum Contaminant Level

<sup>4</sup> Secondary Maximum Contaminant Level Range: Recommended, Upper, Short-Term

Based on the above data, the Facility has a minimal effect on the source water quality, with disinfection residuals being primarily in the form of chloroform.

12. The wastewater storage pond covers approximately seven acres and is seven feet deep. The total storage capacity at two feet of freeboard is approximately 11.4 million gallons. The pond percolation rate was estimated based on a week of water level observations and daily flow measurements. During the period of observation, approximately 9.94 inches of wastewater was added to the pond and wastewater was removed, which resulted in the water level rising 7.7 inches. Evaporation was calculated to be approximately 2.31 inches. From the data, the Discharger concluded that the percolation rate was negligible.
13. Wastewater stored in the pond is used to irrigate the 72-acre LAA, which is owned by the Discharger and leased to a farmer. The Discharger maintains sole control of wastewater application to the fields. The cropland and irrigation systems are shown on Attachment B.

14. Green waste produced at the Facility primarily includes collected screenings and discarded batches of sprouts not meant for human consumption. Green waste consists of 90 to 95 percent water. No other analytical data was presented in the RWD. Green waste is temporarily stored in an area north of the wastewater storage pond. The temporary storage area is bermed to control leachate and prevent storm water runoff.
15. An area northwest of wastewater storage pond is designated for land application of the green waste. During the summer, or as weather permits during the winter, the green waste is spread and disced into the designated area soil.

### **Planned Changes in the Facility and Discharge**

16. The Discharger plans to expand the sprouting operations within the existing facility footprint. The Discharger will construct a new 59,000 square-foot processing building which will allow modernization of the sprouting operations. The existing processing building will be used for storage and supplemental processing. Attachment C, which is attached hereto and made part of this Order by reference, provides a schematic that identifies process flow, solids removal, disposal, and metering and sampling locations.
17. Expected monthly average daily flows will increase to 404,000 gpd and the green waste production will increase commensurately to an expected 1,000 pounds per day. The character of the wastewater is not expected to change.
18. To accommodate the additional flow, the Discharger will excavate an additional wastewater storage pond. The new wastewater storage pond will be approximately 3.5 acres, 6 feet deep, and located adjacent to the existing 7.0-acre pond. Overflow channels will be constructed to between the new and existing pond to allow flexibility in wastewater storage. The combined storage will be 16 million gallons, which incorporates 2 feet of freeboard. Both ponds will be unlined. A percolation test conducted in 2003 found the percolation rate of the 7-acre wastewater storage pond to be negligible based on a week of water level observations and daily flow rate measurements.
19. The Discharger submitted a conservative water balance (i.e., no pond evaporation or percolation was assumed), which showed that the Facility will have sufficient pond storage volume to accommodate a 100-year, 365-day precipitation event at full build-out.
20. Some of the wastewater collected from the climate-controlled growing rooms will be used to irrigate 4.7 acres of landscaping. Prior to irrigation, the wastewater will be filtered using cartridge filters. The filter retentate will be sent to the wastewater storage ponds.

### **Land Application Area**

21. The Discharger owns and grows crops on 164 acres, of which 72 acres are LAA fields irrigated with wastewater from the wastewater storage ponds. These 72 acres are depicted on Attachment B.
22. Wastewater is pumped from the storage ponds and conveyed through 12-inch pressure pipes to the LAA fields. Historically, the LAA fields have been flood irrigated and managed to maintain aerobic conditions between irrigation cycles, minimize odor causing conditions, and minimize hydraulic overloading. No pesticides or fertilizers are used on the crops.
23. Wastewater runoff is maintained onsite and flows by gravity to the tailwater collection system and is returned to the wastewater storage ponds. The Discharger plans to incorporate sprinkler irrigation to provide more control of irrigation water and to reduce tailwater return to the wastewater storage ponds.
24. The LAA fields have primarily been used to grow alfalfa. The Discharger plans to include additional crops such as radishes, sunflowers, pumpkins, wheat, sudan grass, rye grass, corn, tomatoes, milo, or rice.
25. Storm water runoff is collected by the tailwater collection system and is allowed to flow offsite by opening control gates in the tailwater return ditches. The valves are opened to discharge storm water runoff to McCune Creek.

### **Site-Specific Conditions**

26. The site is relatively level at an elevation of approximately 75 feet above mean sea level (MSL), with McCune Creek traversing the cropland and LAA owned by the Discharger.
27. The process buildings are built on a pad of compacted dirt raised about four feet above the surrounding surface grade. Storm water runoff from the Facility flows into surrounding fields where it percolates or is collected by the tailwater collection ditches and discharged to McCune Creek. A small earthen berm protects the wastewater storage ponds from storm water run-on. The process buildings and wastewater storage ponds are not within the 100-year flood plain.
28. The average annual precipitation is 16.8 inches and the 100-year return total is 31.4 inches. The normal-year evapotranspiration is reported to be 51.8 inches per year.
29. Soils are classified by the Natural Resource Conservation Service as predominantly Capay silty clay loam with small areas of Capay clay and Yolo silty clay loam. Yolo silty clay loam is located in the northeastern portion of the site, while the Capay clay is located in the southeastern portion of the site. Capay silty clay loam and Capay clay are characterized as moderately well-drained soils with slow permeability and Yolo silty clay is characterized as well-drained soil with moderately low permeability.

In 2003 the Discharger conducted two infiltrometer tests in separate areas of the LAA to determine the soil percolation rate. The measured percolation rates were 0.084 and 6.03 inches per hour.

30. Surrounding land uses are primarily agricultural with some residences. The Discharger states that local agriculture crops primarily consist of alfalfa and row crops that use Solano Irrigation District irrigation water.
31. Domestic wastewater generated at the facility is discharged to a septic system southwest of the existing facility building.

### **Groundwater Considerations**

32. The Discharger has not completed a site-specific groundwater evaluation to determine background groundwater quality and potential impacts from the discharge. As stated in WDR Order R5-2003-0159, shallow groundwater may be present approximately 20 to 35 feet below the ground surface.

### **Basin Plan, Beneficial Uses, and Regulatory Considerations**

33. The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins*, Fourth Edition (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting waters of the basin, and incorporates by reference plans and policies adopted by the State Water Board. Pursuant to Water Code section 13263(a), waste discharge requirements must implement the Basin Plan.
34. Local drainage is to McCune Creek, which is a tributary to Sweany Creek and the Yolo Bypass. The beneficial uses of the Yolo Bypass, as stated in the Basin Plan, are municipal and domestic supply; agricultural supply; water contact recreation; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; wildlife habitat; and spawning, reproduction, and/or early development.
35. The beneficial uses of underlying groundwater as set forth in the Basin Plan are municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.
36. The Basin Plan establishes narrative water quality objectives for chemical constituents, tastes and odors, and toxicity in groundwater. It also sets forth a numeric objective for total coliform organisms.
37. The Basin Plan's numeric water quality objective for bacteria requires that the most probable number (MPN) of coliform organisms over any seven-day period shall be less than 2.2 per 100 mL in MUN groundwater.

38. The Basin Plan's narrative water quality objectives for chemical constituents, at a minimum, require waters designated as domestic or municipal supply to meet the MCLs specified in Title 22 of the California Code of Regulations (hereafter Title 22). The Basin Plan recognizes that the Central Valley Water Board may apply limits more stringent than MCLs to ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses.
39. The narrative toxicity objective requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, animal, plant, or aquatic life associated with designated beneficial uses.
40. Quantifying a narrative water quality objective requires a site-specific evaluation of those constituents that have the potential to impact water quality and beneficial uses. The Basin Plan states that when compliance with a narrative objective is required to protect specific beneficial uses, the Central Valley Water Board will, on a case-by-case basis, adopt numerical limitations in order to implement the narrative objective.
41. In the absence of specific numerical water quality limits, the Basin Plan methodology is to consider any relevant published criteria. General salt tolerance guidelines, such as *Water Quality for Agriculture* by Ayers and Westcot and similar references indicate that yield reductions in nearly all crops are not evident when irrigation water has an EC less than 700  $\mu\text{mhos/cm}$ . There is, however, an eight- to ten-fold range in salt tolerance for agricultural crops and the appropriate salinity values to protect agriculture in the Central Valley are considered on a case-by-case basis. It is possible to achieve full yield potential with waters having EC up to 3,000  $\mu\text{mhos/cm}$  if the proper leaching fraction is provided to maintain soil salinity within the tolerance of the crop.
42. The list of crops in Finding 30 is not intended as a definitive inventory of crops that are or could be grown in the area affected by the discharge, but it is representative of current agricultural practices in the area. Agricultural operations in the area typically irrigate with Solano Irrigation District irrigation water, which exhibits excellent quality with respect to minerals. The wastewater concentrations for the discharge permitted by this Order are consistent with water quality objectives and will not the limit use of shallow groundwater for irrigation.

### **Antidegradation Analysis**

43. **State Water Resources Control** Board Resolution 68-16 (*Policy with Respect to Maintaining High Quality Waters of the State*) (hereafter the "Antidegradation Policy") prohibits degradation of groundwater unless it has been shown that:
  - a. The degradation is consistent with the maximum benefit to the people of the state.
  - b. The degradation will not unreasonably affect present and anticipated future beneficial uses.

- c. The degradation does not result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives, and
  - d. The discharger employs best practicable treatment or control (BPTC) to minimize degradation.
44. Degradation of groundwater by some of the typical waste constituents associated with discharges from a seed sprouting facility, after effective source control, treatment, and control measures are implemented, is consistent with the maximum benefit to the people of the state. The Discharger currently provides forty-four full-time positions and will be able to provide eighty-eight full-time positions after full build-out. The economic prosperity of valley communities and associated industry is of maximum benefit to the people of the State, and provides sufficient justification for allowing the limited groundwater degradation that may occur pursuant to this Order.
45. The Discharger has not monitored groundwater quality at the site and was not required to monitor groundwater under the previous WDRs. Therefore, ambient and pre-1968 groundwater quality for this Facility are both unknown. However, because groundwater is relatively shallow and surrounding land uses are primarily irrigated agriculture, it is likely that shallow groundwater in the area is degraded due to evapoconcentration of salts and, possibly, due to percolation of excess nitrate from chemical fertilizers.
46. In June 2003, the Discharger submitted a report that summarizes the combination of site-specific characteristics, wastewater characteristics, and published information on the fate and transport of trihalomethanes (THMs) in the wastewater storage pond. The report provides evidence that volatilization and biological degradation, the primary mechanisms for THM removal, are sufficient to ensure that THMs are not a threat to groundwater quality. Therefore, wastewater limits are not necessary for these constituents.
47. Based on monitoring data provided by the Discharger, the facility operations increase the source water TDS concentration from 300 to 360 mg/L on average, which does not exceed the most stringent agricultural water quality goal of 450 mg/L. Between August 2008 and November 2012, the wastewater TDS concentration only exceeded the most stringent water quality goal three times, with a maximum concentration of 485 mg/L. The wastewater quality is expected to remain the same and is not likely to cause groundwater quality to exceed the most stringent agricultural water quality goal. Therefore, this Order requires regular monitoring of wastewater TDS but does not set a wastewater concentration limit for TDS.
48. The wastewater nitrate nitrogen concentration currently averages 2.2 mg/L and the total Kjeldahl nitrogen averages 15.5 mg/L, which equates to an approximate total nitrogen loading rate of 300 pounds per acre per year. The Discharger states that the nitrogen loading rate provided by the wastewater is less than that needed to grow

alfalfa, which requires approximately 480 pounds nitrogen per acre. This Order requires the Discharger to apply wastewater and any supplemental fertilizer at agronomic rates; therefore, the discharge will not significantly degrade groundwater.

49. Current wastewater monitoring data indicates the quality of the discharge does not threaten to significantly degrade groundwater. Therefore, it is not necessary to require groundwater monitoring at this time.
50. The Discharger provides treatment and control of the discharge that incorporates:
  - a. Use of a relatively high-quality process water supply;
  - b. Solids separation;
  - c. Land application of wastewater at agronomic rates;
  - d. Management practices that maximize THM volatilization and nutrient uptake; and
  - e. Utilizing tailwater and storm water runoff control systems.

The Board finds that the treatment and control measures described above are equivalent or better than those employed by similarly-situated dischargers, and that these measures may be considered "BPTC" for this discharge. This Order also establishes operational requirements, limitations, and prohibitions that will ensure that the discharge will not unreasonably affect present and anticipated beneficial uses of groundwater or result in groundwater quality less than that prescribed in state and regional policies. The limited degradation authorized by this Order is consistent with the maximum benefit of the people of the state, as explained in Finding 43. Therefore, the degradation authorized by this Order is consistent with the Antidegradation Policy.

### **Other Regulatory Considerations**

51. Based on the threat and complexity of the discharge, the discharge is determined to be classified as 3C as defined below:
  - a. Category 3 threat to water quality: "Those discharges of waste that could degrade water quality without violating water quality objectives, or could cause a minor impairment of designated beneficial uses as compared with Category 1 and Category 2."
  - b. Category C complexity, defined as: "Any discharger for which waste discharge requirements have been prescribed pursuant to Section 13263 of the Water Code not included in Category A or Category B as described above. Included are dischargers having no waste treatment systems or that must comply with best management practices, dischargers having passive treatment and disposal systems, or dischargers having waste storage systems with land disposal."
52. Title 27 of the California Code of Regulations (hereafter Title 27) contains regulatory requirements for the treatment, storage, processing, and disposal of solid waste. However, Title 27 exempts certain activities from its provisions. Discharges regulated

by this Order are exempt from Title 27 pursuant to provisions that exempt domestic sewage, wastewater, and reuse. Title 27, section 20090 states in part:

The following activities shall be exempt from the SWRCB-promulgated provisions of this subdivision, so long as the activity meets, and continues to meet, all preconditions listed:

...

(b) Wastewater - Discharges of wastewater to land, including but not limited to evaporation ponds, percolation ponds, or subsurface leachfields if the following conditions are met:

- (1) the applicable RWQCB has issued WDRs, reclamation requirements, or waived such issuance;
- (2) the discharge is in compliance with the applicable water quality control plan; and
- (3) the wastewater does not need to be managed according to Chapter 11, Division 4.5, Title 22 of this code as a hazardous waste.

...

(f) Soil Amendments - Use of nonhazardous decomposable waste as a soil amendment pursuant to applicable best management practices, provided that RWQCBs may issue waste discharge or reclamation requirements for such use.

53. The discharge authorized herein, and the treatment and storage facilities associated with the discharge, are exempt from the requirements of Title 27 as follows:
  - a. The wastewater storage ponds are exempt pursuant to Title 27, section 20090(b) because:
    - i. The Central Valley Water Board is issuing WDRs.
    - ii. The discharge is in compliance with the Basin Plan, and;
    - iii. The treated wastewater discharged to the ponds does not need to be managed as hazardous waste.
  - b. Land application of residual sprout solids is exempt pursuant to Title 27, section 20090(f) because it is nonhazardous decomposable waste and best management practices are incorporated into this Order.
54. Although the Facility is exempt from Title 27, the statistical data analysis methods of Title 27, section 20415(e) are appropriate for determining whether the discharge complies with Groundwater Limitations specified in this Order.
55. The State Water Board adopted Order 97-03-DWQ (NPDES General Permit CAS000001) specifying waste discharge requirements for discharges of storm water associated with industrial activities, and requiring submittal of a Notice of Intent by all affected industrial dischargers. Based on the Facility's Standard Industrial Classification (SIC) code (0182), the Discharger is not required to obtain coverage

under State Water Board's Water Quality Order 97-03-DWQ. This Order allows storm water runoff from the LAA to be discharged to surface water as long as process wastewater discharged to the LAA does not occur during precipitation or when the soil is saturated.

56. Water Code section 13267(b) states:

In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of discharging, or who proposes to discharge within its region ... shall furnish, under penalty of perjury, technical or monitoring program reports which the board requires. The burden, including costs of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

The technical reports required by this Order and the attached Monitoring and Reporting Program \_\_\_ are necessary to ensure compliance with these waste discharge requirements. The Discharger owns and operates the Facility that discharges the waste subject to this Order.

The California Department of Water Resources sets standards for the construction and destruction of groundwater wells (hereafter DWR Well Standards), as described in *California Well Standards Bulletin 74-90* (June 1991) and *Water Well Standards: State of California Bulletin 94-81* (December 1981). These standards, and any more stringent standards adopted by the state or county pursuant to Water Code section 13801, apply to all monitoring wells used to monitor the impacts of wastewater storage or disposal governed by this Order.

57. To fulfill requirements imposed by the California Environmental Quality Act ("CEQA")(Pub. Resources Code, § 21000 et seq.), Solano County prepared and circulated an Initial Study and Mitigated Negative Declaration that contained an analysis of the potential for the planned expansion to result in significant environmental effects. The Board, acting as a responsible agency, was consulted during the development of these documents. On 5 May 2011, Solano County certified the Initial Study and Mitigated Negative Declaration.
58. The Mitigated Negative Declaration evaluated the potential for the expanded operations to adversely affect groundwater quality, and found that compliance with the new WDRs will ensure that impacts to water quality will be less than significant. Compliance with these waste discharge requirements will mitigate or avoid any significant impacts to water quality.
59. In compliance with Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This order

promotes that policy by requiring discharges to meet maximum contaminant levels designed to protect human health and ensure that water is safe for domestic uses.

60. Pursuant to Water Code section 13263(g), discharge is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.

### **Public Notice**

61. All the above and the supplemental information and details in the attached Information Sheet, which is incorporated by reference herein, were considered in establishing the following conditions of discharge.
62. The Discharger and interested agencies and persons have been notified of the Central Valley Water Board's intent to prescribe waste discharge requirements for this discharge, and they have been provided an opportunity to submit written comments and an opportunity for a public hearing.
63. All comments pertaining to the discharge were heard and considered in a public hearing.

**IT IS HEREBY ORDERED** that Order R5-2003-0159 is rescinded except for purposes of enforcement, and, pursuant to Water Code sections 13263 and 13267, the Discharger, its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the Water Code and regulations adopted hereunder, shall comply with the following:

#### **A. Discharge Prohibitions**

1. Discharge of wastes to surface waters or surface water drainage courses, including irrigation ditches outside of control of the Discharger, is prohibited.
2. Discharge of "hazardous wastes," as that term is defined in California Code of Regulations, title 22, section 66261.1 *et seq.*, is prohibited
3. as defined in the California Code of Regulations, title 23, section 2510 *et seq.*, is prohibited.
4. Discharge of waste classified as 'designated', as defined in Water Code section 13173, is prohibited.
5. Discharge of wastewater outside of the LAA identified in this Order is prohibited.
6. Discharge of domestic wastewater to the process wastewater system is prohibited.

7. Discharge of process wastewater to the domestic wastewater treatment system (septic system) is prohibited.
8. Discharge of domestic wastewater to the process wastewater ponds, land application area or any surface waters is prohibited.

## B. Flow Limitations

1. **Effectively immediately**, wastewater flows shall not exceed a monthly average flow limit of 265,000 gallons per day.
2. **Effective on the date of Executive Officer approval** of the *3.5-acre Wastewater Storage Pond Construction Completion Report* submitted pursuant to Provision G.1.a, wastewater flows shall not exceed a monthly average flow limit of 404,000 gallons per day.

## C. Mass Loading Limitations

1. The total nitrogen mass loading to each LAA field shall not exceed the agronomic rates for the crops grown. Compliance with this requirement shall be determined using published nitrogen uptake rates for the crops grown and the following formula:

$$M = \sum_{i=1}^{12} \frac{C_i \times V_i \times 8.345}{A} + M_{\text{supplemental}}$$

Where

M = annual total nitrogen loading rate in pounds per acre per year;

i = the number of the month (i.e., January = 1, February = 2, etc.);

C<sub>i</sub> = arithmetic mean of total nitrogen monitoring results for calendar month "i" in mg/L;

V<sub>i</sub> = total wastewater flow to the LAA for calendar month "i" in million gallons;

8.345 = units conversion factor

A = the area of the LAA or field in acres; and

M<sub>supplemental</sub> = additional total nitrogen loading in the form of fertilizer or other sources in pounds per acre per year.

## D. Groundwater Limitations

Release of waste constituents from any portion of the Facility or LAAs shall not cause groundwater to:

1. Exhibit a pH of less than 6.5 or greater than 8.4 pH units.

2. Contain taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses.

#### **E. Discharge Specifications**

1. No waste constituent shall be released, discharged, or placed where it will be released or discharged, in a concentration or in a mass that causes violation of the Groundwater Limitations of this Order.
2. The discharge shall not cause degradation of any water supply.
3. Wastewater treatment, storage, and disposal shall not cause pollution or a nuisance as defined by Water Code section 13050.
4. The discharge shall remain within the permitted waste treatment/containment structures and land application areas at all times.
5. The Discharger shall operate all systems and equipment to optimize the quality of the discharge.
6. All conveyance, treatment, storage, and disposal systems shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
7. Objectionable odors shall not be perceivable beyond the limits of the property at an intensity that creates or threatens to create nuisance conditions.
8. As a means of discerning compliance with Discharge Specification E.7, the dissolved oxygen (DO) content in the upper one foot of any wastewater pond shall not be less than 1.0 mg/L for three consecutive weekly sampling events. If the DO in any single pond is below 1.0 mg/L for three consecutive sampling events, the Discharger shall report the findings to the Central Valley Water Board in writing within 10 days and shall include a specific plan to resolve the low DO results within 30 days.
9. The Discharger shall operate and maintain all ponds sufficiently to protect the integrity of containment dams and berms and prevent overtopping and/or structural failure. Unless a California-registered civil engineer certifies (based on design, construction, and conditions of operation and maintenance) that less freeboard is adequate, the operating freeboard in any pond shall never be less than two feet (measured vertically from the lowest possible point of overflow). As a means of management and to discern compliance with this requirement, the Discharger shall install and maintain in each pond a permanent staff gauge with

calibration marks that clearly show the water level at design capacity and enable determination of available operational freeboard.

10. The treatment, storage, and disposal ponds or structures shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, and ancillary inflow and infiltration during the winter while ensuring continuous compliance with all requirements of this Order. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.
11. On or about **1 October** of each year, available capacity shall at least equal the volume necessary to comply with Discharge Specifications E.9 and E.10.
12. All ponds and open containment structures shall be managed to prevent breeding of mosquitoes. Specifically:
  - a. An erosion control program shall be implemented to ensure that small coves and irregularities are not created around the perimeter of the water surface.
  - b. Weeds shall be minimized through control of water depth, harvesting, or herbicides.
  - c. Dead algae, vegetation, and debris shall not accumulate on the water surface.
  - d. The Discharger shall consult and coordinate with the local Mosquito Abatement District to minimize the potential for mosquito breeding as needed to supplement the above measures.
13. Newly constructed or rehabilitated berms or levees (excluding internal berms that separate ponds or control the flow of water within a pond) shall be designed and constructed under the supervision of a California Registered Civil Engineer.
14. Wastewater contained in any unlined pond shall not have a pH less than 6.0 or greater than 9.0.

#### **F. Land Application Area Specifications**

1. Application of waste constituents to the LAA shall be at reasonable agronomic rates to preclude creation of a nuisance or degradation of groundwater, considering the crop, soil, climate, and irrigation management system. The annual nutritive loading of the LAA, including the nutritive value of organic and chemical fertilizers and of the wastewater shall not exceed the annual crop demand.
2. Wastewater shall not be discharged to the LAA in a manner that causes wastewater to stand for greater than 48 hours.

3. Any irrigation runoff (tailwater) shall be confined to the LAA and shall not enter any surface water drainage course or storm water drainage system.
4. Discharge of process wastewater to any LAA not having a fully functional tailwater/runoff control system is prohibited.
5. Discharge of process wastewater to the LAA shall not occur during precipitation or when the soil is saturated.
6. Storm water runoff from the LAA may be discharged to surface water if the discharge is in compliance with LAA Specification F.5 above.
7. Discharge of process wastewater to land overlying septic system leach lines or seepage pits is prohibited.

## G. Provisions

1. The following reports shall be submitted pursuant to Water Code section 13267 and shall be prepared as described in Provision G.3:
  - a. **Within 60 days** after completing construction of the new processing building and new 3.5-acre wastewater storage pond, the Discharger shall submit a construction completion report. The report shall provide the construction completion date(s); the date that discharge to the new pond began (or estimated date that discharge will occur); and include as-built drawings of the wastewater storage pond that shows all discharge pipe outfalls and associated origin at the processing facility, and verifies storage capacity consistent with the findings of this Order.
2. A discharger whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment, collection, and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in four years, the discharger shall notify the Central Valley Water Board by **31 January**.
3. In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans for investigations and studies, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall bear the professional's signature and stamp.

4. The Discharger shall submit the technical reports and work plans required by this Order for consideration by the Executive Officer, and incorporate comments the Executive Officer may have in a timely manner, as appropriate. Unless expressly stated otherwise in this Order, the Discharger shall proceed with all work required by the foregoing provisions by the due dates specified.
5. The Discharger shall comply with Monitoring and Reporting Program <order number>, which is part of this Order, and any revisions thereto as ordered by the Executive Officer. The submittal dates of Discharger self-monitoring reports shall be no later than the submittal date specified in the MRP.
6. The Discharger shall comply with the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements", dated 1 March 1991, which are attached hereto and made part of this Order by reference. This attachment and its individual paragraphs are commonly referenced as "Standard Provision(s)."
7. The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports. On or before each report due date, the Discharger shall submit the specified document to the Central Valley Water Board or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, then the Discharger shall state the reasons for such noncompliance and provide an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board in writing when it returns to compliance with the time schedule. Violations may result in enforcement action, including Central Valley Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.
8. The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the Discharger when the operation is necessary to achieve compliance with the conditions of this Order.
9. The Discharger shall use the best practicable cost-effective control technique(s) including proper operation and maintenance, to comply with this Order.
10. As described in the Standard Provisions, the Discharger shall report promptly to the Central Valley Water Board any material change or proposed change in the character, location, or volume of the discharge.

11. The Discharger shall report to the Central Valley Water Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the "Emergency Planning and Community Right to Know Act of 1986."
12. The Discharger shall not allow pollutant-free wastewater to be discharged into the wastewater collection, treatment, and disposal systems in amounts that significantly diminish the system's capability to comply with this Order. Pollutant-free wastewater means rainfall, groundwater, cooling waters, and condensates that are essentially free of pollutants.
13. At least **90 days** prior to termination or expiration of any lease, contract, or agreement involving disposal or recycling areas or off-site reuse of wastewater, used to justify the capacity authorized herein and assure compliance with this Order, the Discharger shall notify the Central Valley Water Board in writing of the situation and of what measures have been taken or are being taken to assure full compliance with this Order.
14. In the event of any change in control or ownership of the Facility or LAA fields, the Discharger must notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board.
15. To assume operation as Discharger under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Central Valley Water Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision B.3 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the Water Code. If approved by the Executive Officer, the transfer request will be submitted to the Central Valley Water Board for its consideration of transferring the ownership of this Order at one of its regularly-scheduled meetings.
16. A copy of this Order including the MRP, Information Sheet, Attachments, and Standard Provisions, shall be kept at the Facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.
17. The Central Valley Water Board will review this Order periodically and will revise requirements when necessary.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial

enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order or with the WDRs may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

[http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality)

or will be provided upon request.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify that the foregoing is a full true, and correct copy of an Order adopted by the California Regional Water Quality Control Board on \_\_\_

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PAMELA C. CREEDON, Executive Officer