

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER R5-2018-0064

WASTE DISCHARGE REQUIREMENTS

FOR  
LION RAISINS, INC.  
SELMA RAISIN PACKING FACILITY  
FRESNO COUNTY

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

1. Lion Raisins, Inc. (Lion Raisins or Discharger) owns and operates the Selma Raisin Packing Facility (Facility). The Facility is at 9500 South DeWolf Avenue in Selma, California (Section 25, Township 15 South, Range 21 East, Mount Diablo Base and Meridian), as shown on **Attachments A and B** (incorporated herein).
2. Waste Discharge Requirements (WDRs) Order 5-00-094, adopted by the Central Valley Water Board on 28 April 2000, prescribes requirements for the Facility. Order 5-00-094 allows a maximum daily discharge of 360,000 gallons per day (gpd) and an annual total discharge of 37 million gallons.
3. The prior WDRs, per Order 5-00-094, are out of date and no longer adequately reflects the Discharger's discharge, or Central Valley Water Board plans and policies. Therefore, Order 5-00-094 will be rescinded and replaced with this Order.

**Existing Facility and Discharge**

4. There is a Dehydrator Plant and a Packing Plant at the site. The Dehydrator Plant operates between mid-August and mid-October and discharges only to the Selma-Kingsburg-Fowler Wastewater Treatment Facility (SKF-WWTF). The Packing Plant generally operates all year and discharges to both the SKF-WWTF and to an onsite land application area (LAA).
5. The Facility generates wastewater by washing raisins, equipment, and floors with supply water from two on-site wells. The Facility's wastewater discharges are depicted in the Process Flow Schematic included in **Attachment C** (incorporated herein). All domestic wastewater from the Facility is discharged to the SKF-WWTF.
6. The Facility's stormwater is diverted and collected in an on-site retention pond located in the southeast portion of the Facility, immediately north of the LAA.
7. Through an arrangement with SKF-WWTF, 20 percent of the Packing Plant wastewater and 100 percent of the Dehydrator Plant wastewater are discharged into the SKF-WWTF, while 80 percent of the Packing Plant wastewater is discharged to the LAA via a sprinkler system. The LAA includes 57 acres of land to the south and southeast of the processing facilities. Typically, Lion Raisins grows a winter and summer crop on the fields. In 2017 a

winter crop of Dirkin wheat and a summer crop of Sorghum Sudan grass were grown. Lion Raisins' personnel oversee wastewater applications to the disposal.

8. **Table 1** below provides a summary of the Facility's annual water application of the shallow soils for the past four calendar years. The numerical values used in the table were taken from Lion Raisins' annual reports.

Table 1. Summary of Lion Raisins' Land Application Site Water Application for 2014-2017

Year	Wastewater Applied (Million Gallons)	Fresh Water Applied (Million Gallons)	Wastewater Applied (Inches per acre)	Fresh Water Applied (Inches Per Acre)	Typical Precipitation (Inches Per Acre)	Sum of Water Applied to Site (Inches Per Acre)
2014	30.5	6.2	19.7	4.0	10	33.7
2015	25.5	5.6	16.7	3.6	10	30.3
2016	26.2	5.8	16.9	3.8	13.5	34.2
2017	20.8	5.8	13.4	3.7	13.5	30.6

9. The Facility's source water is provided by two on-site groundwater wells. Well #1 is approximately 150 feet deep, with a 12-inch diameter steel casing, and with an estimated capacity in excess of 1,000 gallons per minute (gpm). Well #2 has been abandoned. Well #3 was drilled to a depth of 390 feet. It has a 14-inch diameter steel casing which is screened from 150 feet to 390 feet. It also is capable of producing approximately 1,000 gpm. Water supply data for 2011 to 2016, for some pertinent water quality parameters, is summarized in **Table 2**. The average value is the first number shown, and the range of the values is listed in parentheses below.

Table 2. Lion Raisins Source Water Quality (2011-2016)

Electrical Conductivity (EC) (µmhos/cm)	Nitrate (as Nitrogen) (mg/L)	Total Dissolved Solids (TDS) (mg/L)	Fixed Dissolved Solids (FDS) (mg/L)
346 (284-438)	3.2 (2.6-3.5)	259 (197-305)	176 (15-230)

10. Wastewater generated at the packing plant is screened to remove the larger, particulate, organic materials. The pH is adjusted by adding a sodium hydroxide solution, calcium hydrated lime, or both, before discharging to the LAA. The screenings are sold to Kings River Commodities.

11. The wastewater characteristics for 2016 are summarized in **Table 3**.

Table 3 - 2016 Wastewater Characteristics

Parameter	Units	Average	Range	# Sample Results
Five-Day Biochemical Oxygen Demand (BOD <sub>5</sub> )	mg/L	4,929	1,780-10,400	96
Total Suspended Solids (TSS)	mg/L	1,814	280-5,200	24
Total Nitrogen (as N)	mg/L	53.1	34-94	24
Nitrate-Nitrogen	mg/L	2.6	0-3.9	24
Total Kjeldahl-Nitrogen	mg/L	50.4	30-91.1	24
Ammonia-Nitrogen	mg/L	3.9	0-7.1	24
Phosphorus	mg/L	12	1.6-33.2	24
pH	pH units	- -	6.5-8.0	52
Electrical Conductivity (EC)	µmhos/cm	572.8	440-810	24
Total Dissolved Solids (TDS)	mg/L	1,648	1,510-1,760	4
Inorganic Dissolved Solids	mg/L	333	271-400	4
Boron	mg/L	0.18	0.17-0.18	2
Bicarbonate	mg/L	66	59-73	2
Calcium	mg/L	49.9	43.1-56.6	2
Chloride	mg/L	18.3	16.2-20.4	2
Sodium	mg/L	32.5	27-38	2
Iron	mg/L	7.56	5.94-9.18	2
Manganese	mg/L	0.23	0.15-0.3	2
Magnesium	mg/L	10.1	9.1-11.1	2
Sulfate	mg/L	111.7	97.3-126	2

### Site-Specific Conditions

12. The Facility and LAA are in the eastern portion of the Central Valley of California. Topography in the area is generally level with an approximate elevation of between 310 feet and 315 feet above mean sea level.
13. Federal Emergency Management Agency (FEMA) maps show that the Facility and LAA are not located within the 500-year flood zone.
14. United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) soil service maps characterize approximately the top six feet of soils. Soils within the LAA are predominantly Delhi Loamy Sand (about 80%) with smaller sections of Hanford Sandy Loam (10%) and Tujunga Loamy Sand (10%). The Delhi series consists of very deep, somewhat excessively drained soils.

15. Climate in the Central Valley is characterized by hot dry summers and mild winters. The rainy season generally extends from November through April. Occasional rains occur during the spring and fall months.
16. Land use in the vicinity of the site is a mixture of agricultural and residential.

### Groundwater Conditions

17. The previous Order specified that groundwater sampling be done quarterly. However, the groundwater monitoring wells have been dry since January 2013, as well as between 2009 and the first half of 2011, due to declining groundwater levels. Therefore, Lion Raisins was required to install new groundwater monitoring wells by 1 February 2018. The existing and new monitoring wells are depicted on **Attachment B**. The general groundwater flow in the area is from the northeast to the southwest. At the site, sometimes groundwater flows from east-southeast to west-northwest. The northwest (MW-3) and southwest (MW-2) wells are considered to be down-gradient of the Facility. The southeast well (MW-1) is considered to be up-gradient from the disposal area. The existing well screens were approximately 20 to 50 feet below the ground surface (bgs). The new wells (MW-4, MW-5, and MW-6) were recently completed with well screens from approximately 44 to 90 feet bgs.
18. The quarterly groundwater quality monitoring data (from the second half of 2011 through the first quarter of 2013), the source water quality data (from 2016), and the wastewater quality data (from 2016) are summarized in **Table 4** below. Up-gradient concentrations (Monitoring Well MW-1) may have been influenced by infiltration from the two unlined canals (shown in Attachment B) that border the site on the southeast (Fowler Switch Canal) and north (Iowa Ditch). Due to the uncertainty of how representative the monitoring data at MW-1 is, Monitoring Well MW-4 is located further north, away from the Fowler Switch Canal. Likewise MW-5 (replacement for MW-2) was moved to the north to reduce the potential for the well to be influenced by the Fowler Switch Canal. In Table 4 the average result is shown first, and the range of results is shown below in parentheses.

Table 4 – Summary of Water Quality Data

Constituent	Units	Source Water <sup>1</sup>	Wastewater Average <sup>2</sup>	Southeast Well MW-1 <sup>3</sup>	Southwest Well MW-2 <sup>3</sup>	Northwest Well MW-3 <sup>3</sup>	Maximum Contaminant Level (MCL)
TDS	mg/L	230 (230-230)	1,648 (1,510-1,760)	64 (27-120)	111 (77-130)	640 (460-810)	500 <sup>8</sup>
FDS	mg/L	163 (163-163)	333 (271-400)	48 (19-87)	75 (55-89)	427 (300-550)	NS
EC	µmhos/cm	338 (317-350)	573 (440-810)	85 (32-160)	146 (91-190)	970 (700-1200)	900 <sup>8</sup>
Nitrate as N	mg/L	3.3 (3.3 – 3.3)	2.6 (0-3.9) <sup>7</sup>	0.4 (ND-0.81)	2.8 (1.7-4.5)	31 (15-57)	10 <sup>9</sup>
TTHMs <sup>4</sup>	µg/L	N/A	N/A	84 (40-170)	46 (37-64)	89 (56-120)	80 <sup>9</sup>
Iron, Dissolved <sup>5</sup>	mg/L	N/A	7.56 (5.94-9.18)	ND <sup>4</sup> (ND-0.06)	ND <sup>4</sup> (ND-ND)	ND <sup>4</sup> (ND-ND)	0.3 <sup>8</sup>
Manganese, Dissolved <sup>6</sup>	mg/L	N/A	0.23 (0.15-0.3)	ND <sup>5</sup> (ND-ND)	ND <sup>5</sup> (ND-ND)	ND <sup>5</sup> (ND-ND)	0.05 <sup>8</sup>

Constituent	Units	Source Water <sup>1</sup>	Wastewater Average <sup>2</sup>	Southeast Well MW-1 <sup>3</sup>	Southwest Well MW-2 <sup>3</sup>	Northwest Well MW-3 <sup>3</sup>	Maximum Contaminant Level (MCL)
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1 = Source water data from 2016. Note annual sampling for TDS, FDS, and Nitrate as N, so the one sample comprises the range. EC range is from three samples.

2 = Wastewater data is from 2016.

3 = Groundwater quality data is from 2011 – 2013.

4 = TTHMs = Total Trihalomethanes.

5 = Reporting limit for dissolved iron was 0.030 to 0.050 mg/L.

6 = Reporting limit for dissolved manganese was 0.010 mg/L.

7 = Total N in wastewater was 53.1 mg/L.

8 = Recommended Secondary MCL.

9 = Primary MCL.

ND = Not detected.

N/A = Data unavailable.

MCL = Maximum contaminant level.

NS = No MCL standard.

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

19. The Central Valley Water Board's operative *Water Quality Control Plan for the Tulare Lake Basin* (Basin Plan) designates beneficial uses; establishes water quality objectives (WQOs) to protect such uses; contains implementation plans and policies for protecting waters of the subject basins; and incorporates by reference plans and policies adopted by the State Water Resources Control Board (State Water Board). Pursuant to Water Code section 13263, subdivision (a), WDRs implement the Basin Plan.
20. The Facility and LAA are in Detailed Analysis Unit (DAU) No. 236, within the Kings Basin hydrologic unit. The operative Basin Plan (as of the date of this Order) identifies the beneficial uses of groundwater in this DAU as municipal and domestic supply (MUN), agricultural supply (AGR), industrial service supply (IND), and industrial process supply (PRO).
21. The Facility and LAA are in the Consolidated Hydrologic Area (No. 551.70) of the South Valley Floor Hydrologic Unit, as depicted on hydrologic maps prepared by the State Water Board. The Basin Plan specifies that surface waters within Hydrologic Unit 557 are Valley Floor Waters. As indicated in the Basin Plan, the beneficial uses of the Valley Floor Waters are as follows: agricultural supply (AGR); industrial service supply (IND); industrial process supply (PRO); water contact recreation (REC-1); non-contact water recreation (REC-2); warm freshwater habitat (WARM); wildlife habitat (WILD); rare, threatened, or endangered species (RARE); and groundwater recharge (GWR).
22. The Basin Plan establishes narrative WQOs for chemical constituents, tastes and odors, and toxicity in groundwater.
23. The Basin Plan's narrative WQOs for chemical constituents, at a minimum, require waters designated for use as domestic or municipal supply to meet the maximum contaminant levels (MCLs) specified in California Code of Regulations, title 22 (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.

24. The Basin Plan identifies the greatest long-term problem facing the entire Tulare Lake Basin as the increase in salinity in groundwater, which has accelerated due to the intensive use of soil and water resources by irrigated agriculture. The Basin Plan recognizes the degradation is unavoidable until a mechanism to carry salts out of the basin is established. To limit the degradation, the Basin Plan establishes several salt management requirements, including:
  - a. The incremental increase in salt from use and treatment must be controlled to the extent possible. The Tulare Lake Basin Plan effluent limit for EC limits the increase from a point source discharge to a maximum of 500  $\mu\text{mhos/cm}$ . When the source water is from more than one source, the EC shall be a weighted average of all sources.
  - b. Discharges to areas that may recharge to good quality groundwater shall not exceed an EC of 1,000  $\mu\text{mhos/cm}$ .
25. 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.
26. Quantifying a narrative WQO 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 adopt numerical limitations to implement the narrative objective on a case-by-case basis.
27. 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.

#### **Other Considerations for Food Processing Waste**

28. Excessive application of high organic strength wastewater to land can create objectionable odors, soil conditions that are harmful to crops, and degradation of underlying groundwater with nitrogen species and 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  $\text{BOD}_5$  to prevent nuisance conditions.
29. 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.

30. For the last four years, the annual nitrogen loading rate to the 57 acres has been 197, 179, 199, and 179 lbs/ac/yr for 2014, 2015, 2016, and 2017, respectively. The LAA is planted with two crops over the course of the year that can remove an average of about 300 lbs/ac/yr. The Order contains LAA Specification E.6 that requires the application of waste constituents to the LAA shall be at reasonable agronomic rates to preclude the creation of a nuisance and unreasonable degradation of groundwater, considering the crop, soil, climate and irrigation management system.
31. Regarding BOD<sub>5</sub>, excessive application 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<sub>5</sub> loading over extended periods may cause beneficial use impacts associated with these metals.
32. Typically, irrigation with high strength wastewater results in high loading on the day of application. It is reasonable to expect some oxidation of BOD<sub>5</sub> at the ground surface, within the evapotranspiration zone and below the root zone within the vadose (unsaturated) zone. The maximum BOD<sub>5</sub> 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.
33. *Pollution Abatement in the Fruit and Vegetable Industry*, published by the United States Environmental Protection Agency, cites BOD<sub>5</sub> loading rates in the range of 36 to 600 lbs/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<sub>5</sub> 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.
34. The California League of Food Processors' *Manual of Good Practice for Land Application of Food Processing/Rinse Water* (Manual of Good Practice) proposes risk categories associated with particular BOD<sub>5</sub> loading rate ranges as follows:
  - a. Risk Category 1: (less than 50 lbs/ac/day; depth to groundwater greater than 5 feet) Indistinguishable from good farming operations with good distribution important.
  - b. Risk Category 2: (less than 100 lbs/ac/day; depth to groundwater greater than 5 feet) Minimal risk of unreasonable groundwater degradation with good distribution more important.

- c. Risk Category 3: (greater than 100 lbs/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<sub>5</sub> 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.

35. Although it has not been subject to a scientific peer review process, the *Manual of Good Practice* provides science-based guidance for BOD<sub>5</sub> loading rates that, if fully implemented, are considered a best management practice to prevent groundwater degradation due to reduced metals. This Order sets an irrigation cycle average BOD<sub>5</sub> loading rate for the LAA of 100 lbs/acre/day.

### **Antidegradation Analysis**

36. The State Water Board Policy with Respect to Maintaining High Quality Waters of the State, Resolution No. 68-16 (Antidegradation Policy) prohibits degradation of groundwater unless it is demonstrated that
  - a. The degradation will not unreasonably affect present and anticipated beneficial uses;
  - b. 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;
  - c. The discharger employs best practicable treatment or control (BPTC) to minimize degradation; and
  - d. The degradation is consistent with the maximum benefit to the people of the state.
37. Antidegradation Policy applies when an activity discharges to high-quality waters and will result in degradation of high-quality waters.
38. Constituents of concern that have the potential to cause degradation of the underlying groundwater include, in part, organics, nitrogen, and salts.

- a. For organics, the Discharger received a Notice of Violation (NOV) on 11 April 2017 for repeatedly exceeding the weekly average BOD<sub>5</sub> loading rate in 2016. Since receiving the NOV, the Discharger has reportedly complied with the loading rate requirement by altering their disposal practices. The BOD<sub>5</sub> cycle average requirement of 100 lbs/acre/day included in this Order is less than in Risk Category 2 (“minimal risk of unreasonable groundwater degradation...”) in the *Manual of Good Practice* since the Discharger uses a sprinkler system to apply wastewater on the LAA. With the conditions stipulated in this Order, and depth to groundwater, the discharge is not expected to cause nuisance conditions or unreasonably degrade groundwater with constituents related to organic overloading.
- b. For nitrogen, this Order limits the application of wastewater to agronomic rates for both nutrient and hydraulic loading. In 2017, the nitrogen (N) loading rate was 179 lbs of N per acre. The crops grown on the site (winter wheat and summer Sudan grass) could potentially take up 300 lbs/acre/year of N from the soil. This Order requires that nitrogen loading to the LAA be at reasonable agronomic rates and includes a provision that requires the Discharger to submit a Wastewater and Nutrient Management Plan to assess and implement measures to ensure nutrient is applied at agronomic rates. The Central Valley Water Board expects that application of wastewater and fertilizers at reasonable agronomic rates for nitrogen will preclude further degradation/pollution of groundwater for nitrate as nitrogen. Further, the Discharger has established new groundwater monitoring wells. Provision H.3 requires the Discharger to complete a groundwater limitations compliance assessment plan. Following completion of the plan, further actions or mitigation may be required.
- c. For salinity, the Basin Plan contains an effluent limitation for EC as described in Findings 24.a and 24.b. This Order includes an EC effluent limitation of source water EC plus 500 µmhos/cm or 1,000 µmhos/cm, whichever is less. For 2016, the Facility’s effluent and source water EC were 573 µmhos/cm and 338 µmhos/cm, respectively. This Order also includes a groundwater limit that states that the Facility’s discharge shall not cause or contribute to groundwater containing concentrations in excess of the MCLs or natural background quality, whichever is greater. To determine compliance with this limit, this Order requires the Discharger to evaluate the Facility’s impacts on groundwater (Provision H.3). Furthermore, Provision H.2 of this Order requires the Discharger to submit a Wastewater and Nutrient Management Plan to demonstrate that the wastewater applied to the LAA is applied at agronomic rates that will preclude degradation of groundwater that will exceed WQOs.

### **Treatment and Control Practices**

39. Lion Raisins provides, or will provide, as required by this order, the following treatment and control of the discharge that incorporates:
  - a. pH adjustment and solids removal from the wastewater;
  - b. Reuse of wastewater for crop irrigation using a sprinkler system;

- c. A cycle average BOD<sub>5</sub> loading limit of 100 lbs/acre/day and a maximum daily BOD<sub>5</sub> loading limit of 300 lbs/acre/day;
- d. Preparing and implementing a Wastewater and Nutrient Management Plan;
- e. Application of nutrients at agronomic rates;
- f. Source water, influent, effluent and groundwater monitoring;
- g. Preparing an annual report that measures the salt, BOD<sub>5</sub>, and nitrogen loading to the LAA and assesses the groundwater quality; and
- h. Daily inspection of the LAA during times of discharge of wastewater.

### **Antidegradation Conclusions**

40. This Order establishes terms and conditions to ensure that the authorized discharge from the Facility will not excessively degrade groundwater, contribute to existing pollution, or unreasonably affect present and anticipated future beneficial uses of groundwater.
41. The provisions of this Order require the Discharger to implement treatment and control measures listed in Finding 39. These treatment and control practices are reflective of BPTC of the discharge.
42. Economic prosperity of valley communities and associated industry is of maximum benefit to the people of the state and, therefore, sufficient reason exists to accommodate growth and limited groundwater degradation around the Facility, provided that the terms of the Basin Plan are met. Degradation of groundwater by some typical waste constituents released with discharge from the raisin processor after effective source reduction, treatment and control, and considering the best efforts of Lion Raisins and magnitude of degradation, is of maximum benefit to the people of the state. Lion Raisins contributes to the economic prosperity of the region by directly employing approximately 100 workers at the Facility; provides incomes for numerous surrounding grape growers, trucking firms, and agricultural service firms; and provides a tax base for local and county governments. Economic prosperity of Valley communities and associated industries is of maximum benefit to the people of the state and, therefore, sufficient reason to accommodate growth and limited groundwater degradation provided terms of the Basin Plan are met.
43. This Order is consistent with the Antidegradation Policy since:
  - a. The Discharger will implement BPTC to minimize or prevent degradation;
  - b. Any limited degradation authorized under this Order will not result in water quality less than WQOs; and
  - c. Any limited degradation authorized under this Order is of the maximum benefit to the people of the state.

44. The Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. These programs, once effective, could change how the Central Valley Water Board permits discharges of salt and nitrate. For nitrate, dischargers that are unable to comply with stringent nitrate requirements will be required to take on alternate compliance approaches that involve providing replacement drinking water to persons whose drinking water is affected by nitrates. Dischargers could comply with the new nitrate program either individually or collectively with other dischargers. For salinity, dischargers that are unable to comply with stringent salinity requirements would instead need to meet performance-based requirements and participate in a basin-wide effort to develop a long-term salinity strategy for the Central Valley. This Order may be amended or modified to incorporate any newly-applicable requirements.
45. The stakeholder-led Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative has been coordinating efforts to implement new salt and nitrate management strategies. The Board expects dischargers that may be affected by new salt and nitrate management policies to coordinate with the CV-SALTS initiative.

#### **CEQA**

46. The prescription of WDRs for an existing facility and operation is exempt from the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq., pursuant to section 15301 of the CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.). There have been no material changes or expansions at the Facility other than those described the Fresno County Planning Commission's 12 March 1999 Mitigated Negative Declaration for Unclassified Conditional Use Permit No. 2847, which was adopted prior to the previous WDRs Order. Additionally, no adverse water quality impacts will occur, provided the Discharger complies with the terms and conditions of this Order.

#### **Other Regulatory Considerations**

47. Pursuant to Water Code section 106.3, subdivision (a), it is "the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes." Although this Order is not necessarily subject to Water Code section 106.3 because it does not revise, adopt or establish a policy, regulation or grant criterion (see § 106.3, subd. (b)), it nevertheless promotes that policy by requiring discharges to meet MCLs designed to protect human health and ensure that water is safe for domestic use.
48. Based on the threat and complexity of the discharge, the facility is determined to be classified as 2B as defined below:
  - a. Category 2 threat to water quality: "Those discharges of waste that could impair the designated beneficial uses of the receiving water, cause short-term violations of water quality objectives, cause secondary drinking water standards to be violated, or cause a nuisance."
  - b. Category B complexity: "Any discharger not included in Category A that has physical, chemical, or biological treatment systems (except for septic systems with subsurface disposal), or any Class 2 or Class 3 waste management units."

49. The discharges of waste authorized under this Order, and the associated operation of treatment ponds (as described herein), are exempt from the prescriptive requirements set forth in California Code of Regulations, title 27, section 20000 et seq. (See Cal. Code Regs., tit. 27, § 20090, subd. (a)-(b).)
50. Because all stormwater at the Facility is collected and disposed onsite, the Discharger will not be required to obtain coverage under the *Statewide General Permit for Storm Water Discharges Associated with Industrial Activities*, State Water Board Order 2014-0057-DWQ, NPDES Permit No. CAS000001 (Industrial General Permit).
51. Water Code section 13267, subdivision (b)(1) provides as follows.

In conducting an investigation ... the regional board may require that any person who has discharged, discharges, or ... proposes to discharge ... 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.
52. Technical reports required under this Order (and per the separately-issued Monitoring and Reporting Program Order No. R5-2018-0064) are necessary to ensure compliance with the WDRs prescribed herein. Additionally, the burden of producing such reports, as estimated by Central Valley Water Board staff, is also reasonably related to the need for such reports.
53. Absent promulgation of stricter standards pursuant to Water Code section 13801, Department of Water Resources' standards for the construction and destruction of groundwater wells, per Bulletins 74-90 (June 1991) and 94-81 (Dec. 1981), shall apply to all wells installed or monitored in connection to this Order.
53. Statistical data analysis methods outlined in the U.S. Environmental Protection Agency's *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance* (Unified Guidance) are appropriate for determining compliance with Groundwater Limitations of this Order. Depending on the circumstances, other methods may also be appropriate.
54. The ability to discharge waste to the waters of the State of California is not a right but a privilege. (see Wat. Code, § 13263, subd. (g).) Accordingly, the adoption of this Order shall not be construed as creating a vested right to continue in any discharges otherwise authorized herein.

### **Public Notice**

55. 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.
56. 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.
57. All comments pertaining to the discharge were heard and considered in a public hearing.

**IT IS HEREBY ORDERED** that Order 5-00-094 is rescinded; and that, pursuant to Water Code sections 13263 and 13267, Lion Raisins, Inc. (Discharger), its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the Water Code and regulations promulgated thereunder, shall comply with the following:

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

1. Discharge of wastes to surface waters or surface water drainage courses is prohibited.
2. Discharge of wastewater from the Dehydrator Plant to the Land Application Area (LAA) is prohibited.
3. Discharge of waste classified as 'hazardous', as defined in the California Code of Regulations, title 22, section 66261.1 et seq., is prohibited.
4. Treatment system bypass of untreated or partially treated waste is prohibited, except as allowed by section E.2 of the Standard Provisions and Reporting Requirements for Waste Discharge Requirements dated 1 March 1991 (SPRRs), incorporated herein.
5. Discharge of waste at a location or in a manner different from that described in the Findings herein is prohibited.
6. Discharge of toxic substances into any wastewater treatment system or land application area such that biological treatment mechanisms are disrupted is prohibited.
7. Application of residual solids to the LAA is prohibited.
8. Discharge of domestic wastewater to the process wastewater treatment system and/or LAA is prohibited.

**B. Flow Limitations**

1. The wastewater discharge to the LAA shall not exceed the following (monitored at EFF-001):
  - a. A maximum daily flow of 360,000 gallons per day, or
  - b. A total annual flow of 37 million gallons.

**C. Effluent Limitations**

1. The 12-month rolling average electrical conductivity (EC) of the discharge shall not exceed the 12-month flow-weighted rolling average EC of the source water plus 500  $\mu\text{mhos/cm}$  or 1,000  $\mu\text{mhos/cm}$ , whichever is less.

**D. Discharge Specifications**

1. No waste constituent shall be released, discharged, or placed where it will cause a violation of the Groundwater Limitations of this Order.
2. Wastewater treatment, storage, and disposal shall not cause pollution or a nuisance as defined by Water Code section 13050.
3. The discharge shall remain within the permitted waste treatment/containment structures and LAA at all times.
4. The Discharger shall operate all systems and equipment to optimize the quality of the discharge.
5. 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.
6. Discharge to the LAA shall not have a pH less than 6.4, or greater than 8.4. If wastewater is blended with fresh irrigation water, this pH limitation shall apply to the blended water.
7. Objectionable odors shall not be perceivable beyond the limits of the property where the waste is generated, treated, and/or discharged at an intensity that creates or threatens to create nuisance conditions.
8. Irrigation pipelines, sprinklers, and/or drip irrigation lines used to convey wastewater to the LAA shall be flushed with fresh water after application of wastewater, as needed, to ensure compliance with Discharge Specification D.6.
9. 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.
10. 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.
  11. Storage of residual solids on areas not equipped with means to prevent storm water infiltration or a paved leachate collection system, is prohibited.
  12. All stockpiled products shall be managed to prevent the creation of nuisance conditions or to prevent erosion that causes discharge of sediment to surface water drainage courses.
  13. Process wash water used for on-site dust control or landscape irrigation shall be used in a manner that will not cause discharge of eroded sediment in storm water runoff to areas not controlled by the Discharger.

#### **E. Land Application Area Specifications**

1. For the purposes of this Order, "land application area" (LAA) refers to the discharge area described in Finding 7.
2. Crops or other vegetation which may include pasture grasses, native grasses, trees, and/or ornamental landscaping, shall be grown in the LAA. Vegetation shall be selected based on nutrient uptake, consumptive use of water, and irrigation requirements to maximize crop uptake of nutrients.
3. The cycle average BOD<sub>5</sub> loading rate shall not exceed 100 lbs/acre/day to the LAA. The cycle average BOD<sub>5</sub> loading rate shall be calculated as determined by the method described in the attached Monitoring and Reporting Program.
4. The maximum BOD<sub>5</sub> loading to the designated disposal area shall not exceed 300 lbs/acre on any one day.
5. The resulting effect of the discharge on soil shall not exceed the buffering capacity of the soil profile.
6. Application of waste constituents to the LAA shall be at reasonable agronomic rates to preclude creation of a nuisance or unreasonable degradation of groundwater, considering crop, soil, climate and irrigation management system. The annual nutritive loading of the LAA, including nutritive value of organic and chemical fertilizers, and the wastewater, shall not exceed the annual crop demand.

7. Land application of wastewater shall be managed to minimize erosion.
8. The LAA shall be managed to prevent breeding of mosquitoes or other vectors. In particular:
  - a. There shall be no standing water 48 hours after the irrigation ceases;
  - b. Tailwater ditches shall be maintained essentially free of emergent, marginal, or floating vegetation; and
  - c. Low-pressure and unpressurized pipelines and ditches accessible to mosquitos shall not be used to store recycled water.
9. Irrigation of the LAA shall occur only when appropriately trained personnel are on duty.
10. The LAA should be inspected as frequently as necessary to ensure continuous compliance with the requirements of this Order.
11. Spray irrigation with wastewater is prohibited when wind speed (including gusts) exceeds 30 mph.
12. Sprinkler heads shall be designed, operated and maintained to create a minimum amount of mist.
13. Any runoff of wastewater or irrigation water shall be confined to the LAA or returned to a containment system and shall not enter any surface water drainage course or storm water drainage system.

#### **F. Solids Disposal Specifications**

1. Sludge, as used in this document, means the solid, semisolid, and liquid organic matter removed from wastewater treatment, settling, and storage vessels or ponds. Solid waste refers to solid inorganic matter removed by screens and soil sediments from washing of unprocessed fruit or vegetables. Except for waste solids originating from meat processing, residual solids means organic food processing byproducts such as culls, pulp, stems, leaves, and seeds that will not be subject to treatment prior to disposal or land application.
2. Sludge and solid waste shall be removed from screens, sumps, ponds, and clarifiers as needed to ensure optimal operation and adequate storage capacity.
3. Any handling and storage of sludge, solid waste, and residual solids shall be controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or concentration that will violate the groundwater limitations of this Order.
4. If removed from the site, sludge, solid waste, and residual solids shall be disposed of in a manner approved by the Executive Officer and consistent with Title 27, division 2. Removal for reuse as animal feed, or land disposal at facilities (i.e., landfills,

composting facilities, soil amendment sites operated in accordance with valid waste discharge requirements issued by a Regional Water Board) will satisfy this specification.

5. Any proposed change in solids use or disposal practice shall be reported in writing to the Executive Officer at least 90 days in advance of the change.

#### **G. Groundwater Limitations**

1. Release of waste constituents from any treatment unit, storage unit, delivery system or LAA associated with the Facility shall not cause or contribute to groundwater containing constituent concentrations in excess of the concentrations specified below or in excess of natural background quality, whichever is greater.
  - a. Nitrate as nitrogen of 10 mg/L.
  - b. For constituents identified in Title 22 of the California Code of Regulations, the MCLs quantified therein.

#### **H. Provisions**

1. The Discharger shall comply with Monitoring and Reporting Program (MRP) R5-2018-0064, 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.
2. By **2 August 2019**, the Discharger shall submit a Wastewater and Nutrient Management Plan for Executive Officer approval. At a minimum, the Plan must include;
  - a. Procedures for monitoring Facility operations and discharge;
  - b. Measures to ensure even application of wastewater;
  - c. An action plan to deal with objectionable odors and/or nuisance conditions;
  - d. Supporting data and calculations for monthly and annual water and nutrient balances;
  - e. A discussion on blending of wastewater and supplemental irrigation water; and
  - f. Management practices that will ensure wastewater, irrigation water, and fertilizers are applied at agronomic rates to the LAA.

The objective of the Plan shall be to identify and utilize site specific data to demonstrate that wastewater loading will occur at reasonable agronomic rates that will preclude degradation of groundwater that will exceed water quality objectives and adversely affect beneficial uses.

3. By **2 August 2019**, the Discharger shall submit a Groundwater Limitations Compliance Assessment Plan. The plan shall propose and justify the statistical methods used to evaluate compliance with the groundwater limitations of this Order for the compliance wells and constituents specified in the MRP. Compliance shall be determined using appropriate statistical methods that have been selected based on site-specific information and the Unified Guidance discussed in Finding 53 of this Order. The report shall explain and justify the selection of the appropriate statistical methods.
4. In accordance with 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.
5. 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.
6. Except as otherwise provided herein, the Discharger shall comply with all applicable sections of the SPRRs.
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. Per the SPRRs, 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. In the event that the Discharger reports toxic chemical release data to the State Emergency Response Commission (SERC) pursuant to section 313 of the Emergency Planning and Community Right to Know Act (42 U.S.C. § 11023), the Discharger shall also report the same information to the Central Valley Water Board within 15 days of the report to the SERC.
12. In the event of any change in control or ownership of the Facility or LAA, 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.
13. 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 California 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.
14. A copy of this Order (including Information Sheet, Attachments and SPRRs) and the MRP Order, shall be kept at the Facility for reference by operating personnel. Key operating personnel shall be familiar with their contents.
15. 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 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 Title 23, section 2050 et seq. 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 the link below), or will be provided upon request.

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

I, PATRICK PULUPA, Executive Officer, 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 2 August 2018.

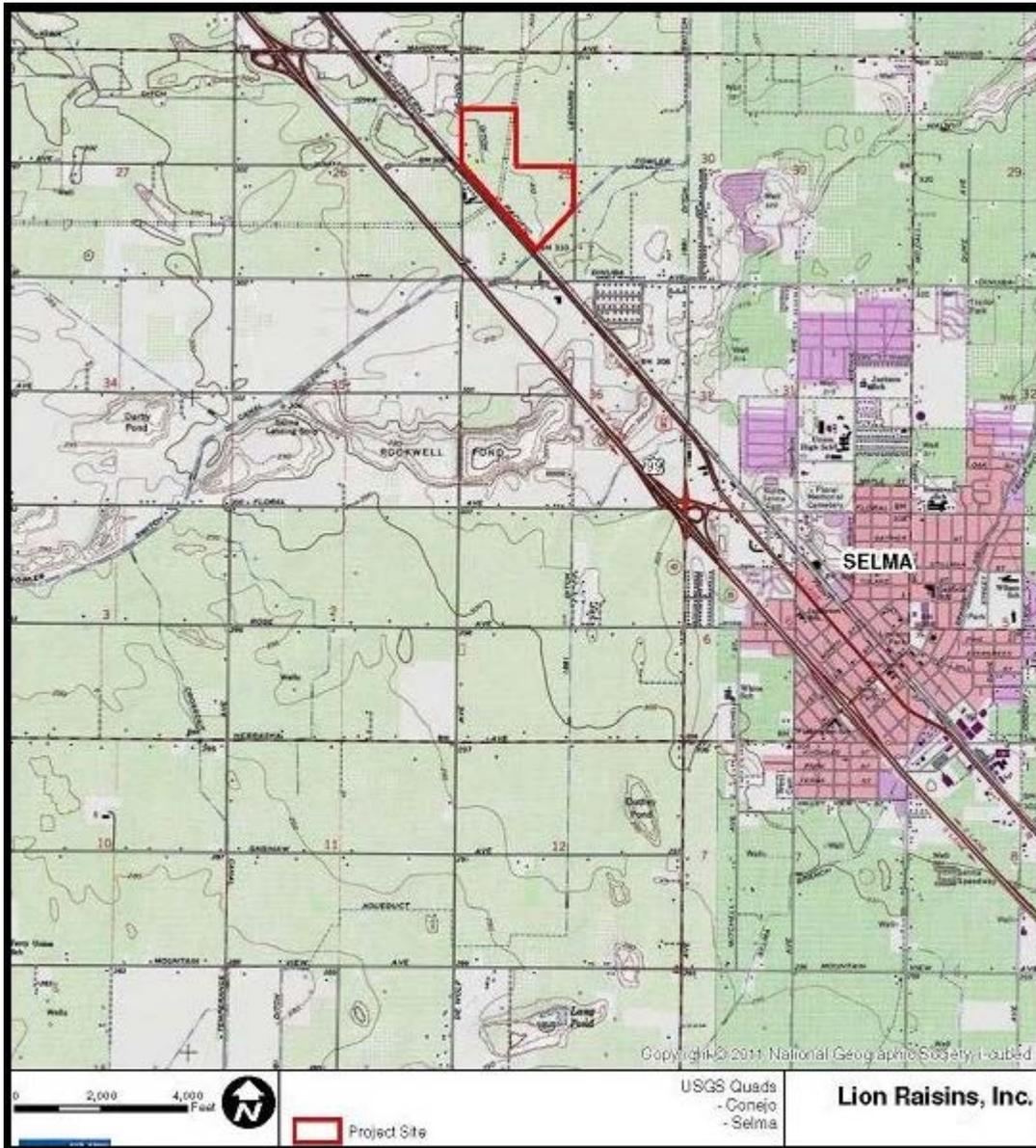
*ORIGINAL SIGNED BY*

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PATRICK PULUPA, Executive Officer

Order Attachments

- Attachment A—Site Vicinity Map
- Attachment B—Facility Map
- Attachment C—Process Flow Schematic
- Monitoring and Reporting Program (MRP) Order
- Information Sheet
- Standard Provisions and Reporting Requirements dated 1 March 1991



**SITE VICINITY MAP**

WASTE DISCHARGE REQUIREMENTS ORDER R5-2018-0064  
 FOR LION RAISINS, INC.  
 SELMA RAISIN PACKING FACILITY  
 FRESNO COUNTY

**ATTACHMENT A**

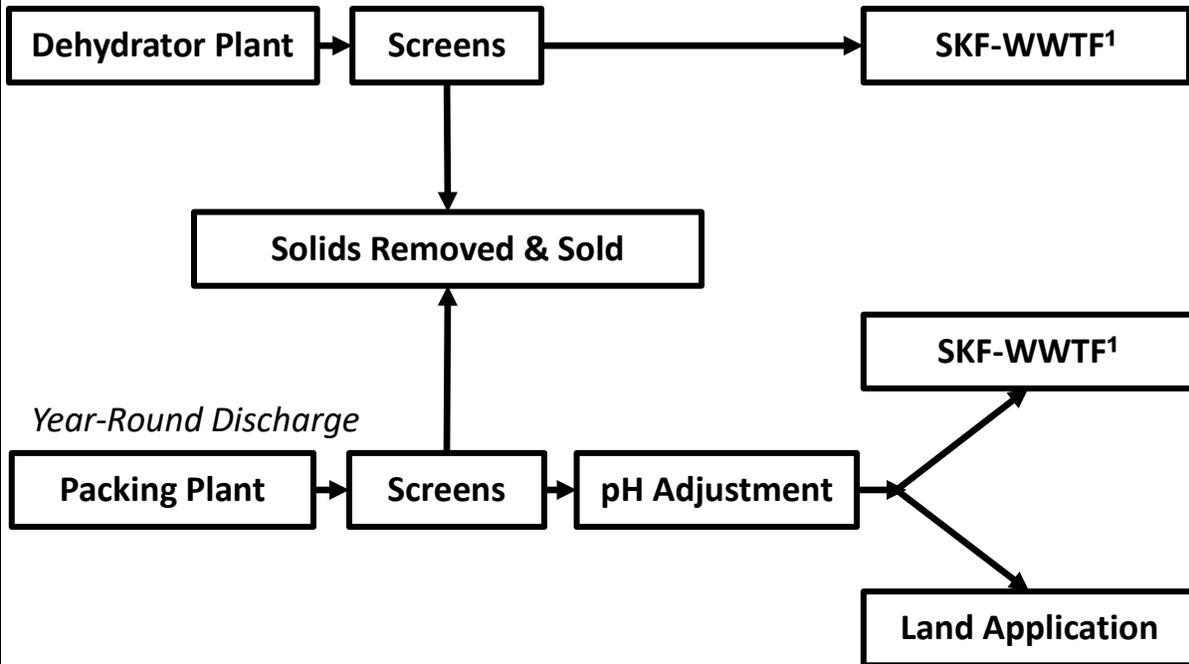


**FACILITY MAP**

WASTE DISCHARGE REQUIREMENTS R5-2018-0064  
 FOR LION RAISINS, INC.  
 SELMA RAISIN PACKING FACILITY, FRESNO COUNTY

**ATTACHMENT B**

*Seasonal Discharge: Mid-August to Mid-October*



**1 - SKF-WWTF = SELMA - KINGSBURG - FOWLER WASTEWATER TREATMENT FACILITY**

### PROCESS FLOW SCHEMATIC

WASTE DISCHARGE REQUIREMENTS ORDER R5-2018-0064  
FOR LION RAISINS, INC.  
SELMA RAISIN PACKING FACILITY  
FRESNO COUNTY

**ATTACHMENT C**

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2018-0064

FOR

LION RAISINS, INC.  
SELMA RAISIN PACKING FACILITY  
FRESNO COUNTY

This Monitoring and Reporting Program (MRP) is issued pursuant to Water Code section 13267. Lion Raisins, Incorporated (hereafter Lion Raisins or Discharger) shall not implement any changes to this MRP unless and until the Central Valley Regional Water Quality Control Board (Central Valley Water Board) adopts, or the Executive Officer issues, a revised MRP.

The Discharger owns and operates the Selma Raisin Packing Facility (Facility) that is subject to the Waste Discharge Requirements (WDRs) cited herein, and the monitoring reports are necessary to determine compliance with the WDRs.

Pursuant to Water Code section 13267, the Discharger shall implement this MRP and shall submit the monitoring reports described herein.

If monitoring consistently shows no significant variation in magnitude of a constituent concentration or parameter after at least 12 months of monitoring, the Discharger may request this MRP be revised to reduce monitoring frequency. The proposal must include adequate technical justification for reduction in monitoring frequency.

A glossary of terms used in this MRP is included on the last page.

**I. GENERAL MONITORING REQUIREMENTS**

**A. FLOW MONITORING**

Hydraulic flow rates shall be measured at the monitoring points specified in this MRP. Central Valley Water Board staff shall approve any proposed changes to flow monitoring locations prior to implementation of the change. All flow monitoring systems shall be appropriate for the conveyance system (i.e., open channel flow or pressure pipeline) and liquid type. Unless otherwise specified, each flow meter shall be equipped with a flow totalizer to allow reporting of cumulative volume as well as instantaneous flow rate. Flow meters shall be calibrated at the frequency recommended by the manufacturer; typically, at least once per year and records of calibration shall be maintained for review upon request.

**B. MONITORING AND SAMPLING LOCATIONS**

Samples shall be obtained at the monitoring points specified in this MRP. Central Valley Water Board staff shall approve any proposed changes to sampling locations prior to implementation of the change.

The Discharger shall monitor the following locations to demonstrate compliance with the requirements of this Order:

<b>Monitoring Location Name</b>	<b>Monitoring Location Description</b>
<b>INF-001</b>	Location where a representative sample of the influent (process wastewater) can be obtained prior to treatment (before screening and pH adjustment).
<b>EFF-001</b>	Location where a representative sample of the effluent (process wastewater) can be obtained prior to discharge to the land application area (LAA).
<b>SPL-001, SPL-002</b>	Existing source water wells and any other source water wells added to the source water well network.
<b>LAA-001</b>	LAA where the Facility's discharge is applied.
<b>MW-01 through MW-06</b>	Groundwater monitoring wells (see Attachment B for locations) and all future wells added to the approved network.

**C. SAMPLING AND SAMPLE ANALYSIS**

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. Except as specified otherwise in this MRP, grab samples will be considered representative of water, wastewater, soil, solids/sludges and groundwater.

The time, date, and location of each sample shall be recorded on the sample chain of custody form. All analyses shall be performed in accordance with the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*, dated 1 March 1991 (Standard Provisions or SPRRs).

Field test instruments (such as those used to measure pH, temperature, electrical conductivity, dissolved oxygen, wind speed, and precipitation) may be used provided that:

1. The operator is trained in proper use and maintenance of the instruments;
2. The instruments are field calibrated at the frequency recommended by the manufacturer;
3. The instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

Laboratory analytical procedures shall comply with the methods and holding times specified in the following (as applicable to the medium to be analyzed):

- *Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater* (EPA);
- *Test Methods for Evaluating Solid Waste* (EPA);
- *Methods for Chemical Analysis of Water and Wastes* (EPA);
- *Methods for Determination of Inorganic Substances in Environmental Samples* (EPA);
- *Standard Methods for the Examination of Water and Wastewater* (APHA/AWWA/WEF); and
- *Soil, Plant and Water Reference Methods for the Western Region* (WREP 125).

Approved editions shall be those that are approved for use by the United States Environmental Protection Agency (EPA) or the State Water Resources Control Board (State Water Board), Division of Drinking Water's Laboratory Accreditation Program (ELAP). The Discharger may propose alternative methods for approval by the Executive Officer. Where technically feasible, laboratory reporting limits shall be lower than the applicable water quality objectives for the constituents to be analyzed.

If monitoring consistently shows no significant variation in a constituent concentration or parameter after at least 12 months of monitoring, the Discharger may request this MRP be revised to reduce monitoring frequency. The proposal must include adequate technical justification for reduction in monitoring frequency. This monitoring program shall remain in effect unless and until a revised MRP is issued.

## II. SPECIFIC MONITORING REQUIREMENTS

### A. INFLUENT MONITORING

At a minimum, influent shall be monitored as specified below:

Constituent/Parameter	Units	Sample Type	Monitoring Frequency
pH	pH Units	Grab	Weekly
Electrical Conductivity	µmhos/cm	Grab	Weekly
Total Dissolved Solids	mg/L	Grab	Quarterly

### B. EFFLUENT MONITORING

Effluent samples shall be collected at monitoring location EFF-001. Samples should be representative of the volume and nature of the discharge. Time of collection of samples shall be recorded. At a minimum, effluent shall be monitored as specified below:

Constituent/Parameter	Units	Sample Type	Monitoring Frequency
Flow	gallons	Meter Reading <sup>1</sup>	Continuous
BOD <sub>5</sub>	mg/L	24-hour Composite	Weekly
pH	pH Units	Grab	Weekly
Electrical Conductivity	µmhos/cm	24-hour Composite	Weekly
Total Kjeldahl Nitrogen	mg/L	24-hour Composite	Twice Monthly
Nitrate as Nitrogen (NO <sub>3</sub> -N)	mg/L	24-hour Composite	Twice Monthly
Ammonia as Nitrogen	mg/L	24-hour Composite	Twice Monthly
Total Nitrogen	mg/L	24-hour Composite	Twice Monthly
Total Suspended Solids	mg/L	24-hour Composite	Monthly
Total Dissolved Solids	mg/L	24-hour Composite	Monthly
Fixed Dissolved Solids	mg/L	24-hour Composite	Monthly

Volatile Dissolved Solids	mg/L	24-hour Composite	Monthly
Standard Minerals <sup>2</sup>	mg/L	24-hour Composite	Quarterly

<sup>1</sup> For continuous analyzers, the Discharger shall report documented routine meter maintenance activities including date, time of day, and duration, in which the analyzer(s) is not in operation.

<sup>2</sup> Standard minerals shall include, at a minimum, the following elements/compounds: arsenic, boron, calcium, chloride, iron, magnesium, manganese, phosphorus, potassium, sodium, sulfate, total alkalinity (including alkalinity series), and hardness.

**C. LAND APPLICATION AREA MONITORING (LAA-001)**

The Discharger shall inspect the LAA at least once daily prior to and during irrigation events. Evidence of erosion, field saturation, runoff, or the presence of nuisance conditions (i.e., flies, ponding, etc.) shall be noted in the Facility’s log book and included as part of the quarterly monitoring report. In addition, the Discharger shall perform the following routine monitoring and loading calculations for each discrete irrigation area within the LAA each day when water is applied. If supplemental irrigation water is used, samples shall be collected from its source (e.g., SPL-001 & SPL-002). The data shall be collected and presented in both graphical (map) and tabular format and shall include the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>SampleType</u>
Daily <sup>1</sup>	Application Area	Acres	Calculated
Daily <sup>1</sup>	Wastewater flow	Gallons	Metered
Daily <sup>1</sup>	Wastewater loading	Inches/day	Calculated
Daily <sup>1</sup>	Supplemental Irrigation Flow	Gallons	Metered
Daily <sup>1</sup>	Supplemental Irrigation Loading	Inches/day	Calculated
Daily <sup>1</sup>	Precipitation	Inches	Rain gage <sup>2</sup>
Monthly	Total Hydraulic Loading <sup>3</sup>	Inches/(acre-month)	Calculated
<b><u>BOD<sub>5</sub> Loading<sup>4</sup></u></b>			
Daily <sup>1</sup>	Day of Application	lbs/acre/day	Calculated
Cycle	Cycle Average <sup>5</sup>	lbs/acre/day	Calculated
<b><u>Nitrogen Loading<sup>4</sup></u></b>			
Annually	From wastewater	lbs/acre/yr	Calculated
Annually	From fertilizers	lbs/acre/yr	Calculated
Annually	From supplemental irrigation water	lbs/acre/yr	Calculated
<b><u>Salt Loading<sup>4</sup></u></b>			
Annually	From wastewater	lbs/acre/yr	Calculated
Annually	From supplemental irrigation water	lbs/acre/yr	Calculated

<sup>1</sup> When wastewater is applied to the LAA.

<sup>2</sup> National Weather Service or CIMIS data from the nearest weather station is acceptable.

<sup>3</sup> Combined loading from wastewater, irrigation water, and precipitation.

<sup>4</sup> The BOD<sub>5</sub>, salt, and nitrogen loading rates shall be calculated as specified in Section III of this MRP.

<sup>5</sup> A cycle average is calculated by taking the pounds of BOD<sub>5</sub> applied to the LAA in a given period, divided by the sum of the total days wastewater was applied plus the number of days of rest (no application of wastewater). For example, a 3-day cycle average would be calculated as follows. Effluent is discharged on the first day at a rate of 300 pounds per acre. No discharge occurs on days 2 and 3 (2 days rest). The BOD<sub>5</sub> cycle average is the pounds per acre applied by the discharge (300 pounds) divided by the total number of days (three). The BOD<sub>5</sub> cycle average loading would be 100 lbs per acre per day.

**D. GROUNDWATER MONITORING**

The Discharger shall maintain the groundwater monitoring well network. If a groundwater monitoring well is dry for more than four consecutive sampling events or is damaged, the Discharger shall submit a work plan and proposed time schedule to replace the well. The well shall be replaced following approval of the work plan. Once installed, all new wells shall be added to the groundwater monitoring network. Approximate locations for existing and new monitoring wells are shown in Attachment B. MW-1, MW-2, and MW-3 are existing wells that are currently dry. MW-4, MW-5, and MW-6 were installed between 20 December 2017 and 2 January 2018.

**Applicability of Groundwater Limitations**

The following table lists all the existing monitoring wells and designates the purpose of each well:

MW-1<sup>1</sup>      MW-2<sup>2</sup>      MW-3<sup>2</sup>      MW-4<sup>1</sup>      MW-5<sup>2</sup>      MW-6<sup>2</sup>

<sup>1</sup> Background Monitoring Well

<sup>2</sup> Compliance Monitoring Well

**Groundwater Sampling and Analysis**

Prior to purging or sampling, the groundwater depth shall be measured in each well to the nearest 0.01 feet. Groundwater elevations shall then be calculated to determine groundwater gradient and flow direction.

Low or no-purge sampling methods are acceptable, if described in an approved Sampling and Analysis Plan. Otherwise, each monitoring well shall be purged of at least 3 to 5 casing volumes until pH, electrical conductivity and turbidity have stabilized prior to sampling. Groundwater monitoring for all monitoring wells shall include, at a minimum, the following:

Constituent/Parameter	Units	Sample Type	Monitoring Freq.
Depth to Groundwater <sup>1</sup>	0.01 feet	Measurement	Quarterly
Groundwater Elevation <sup>1</sup>	0.01 feet	Calculation	Quarterly
Gradient <sup>1</sup>	feet/feet	Calculation	Quarterly
Gradient Direction <sup>1</sup>	degrees	Calculation	Quarterly
pH	pH Units	Grab	Quarterly
Total Kjeldahl Nitrogen	mg/L	Grab	Quarterly
Nitrate as Nitrogen	mg/L	Grab	Quarterly
Total Nitrogen	mg/L	Grab	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly
Electrical Conductivity	µmhos/cm	Grab	Quarterly
Standard Minerals <sup>2</sup>	mg/L	Grab	Quarterly

<sup>1</sup> Groundwater elevations shall be determined based on depth-to-water measurements using a surveyed elevation reference point on the well casing.

<sup>2</sup> Standard Minerals shall include, at a minimum, the following: arsenic, boron, calcium, chloride, iron, manganese, magnesium, potassium, sodium, sulfate, total alkalinity (including alkalinity series), and hardness.

Samples for metals (including iron, manganese, and arsenic) shall be filtered prior to preservation and digestion using a 0.45-micron filter.

**E. RESIDUAL SOLIDS MONITORING**

The Discharger shall monitor the residual solids generated and disposed of on a monthly basis. The following shall be monitored and reported:

1. Volume of Solids Generated. Solids may include pomace, seeds, stems, diatomaceous earth, screenings, pond solids, and sump solids, or other material.
2. Volume of Solids Disposed of Off-site. Describe the disposal method (e.g. animal feed, land application, off-site composting, landfill, etc.); the amount disposed (tons); and the name of the hauling company.
3. Volume of Solids Disposed On-site. The Discharger is prohibited by the WDRs to dispose of solids on-site.

**F. WATER SUPPLY MONITORING**

A sampling station shall be established where a representative sample of the source water supply can be obtained. If the source water is from more than one well, the results shall also be presented as a flow-weighted average of all the wells used. Water supply monitoring shall include at least the following:

Constituent/Parameter	Units	Monitoring Frequency
Total Dissolved Solids	mg/L	Quarterly
Fixed Dissolved Solids	mg/L	Quarterly
Volatile Dissolved Solids	mg/L	Quarterly
Electrical Conductivity	µmhos/cm	Quarterly
Total Nitrogen	mg/L	Quarterly
Nitrate as Nitrogen	mg/L	Quarterly
Total Kjeldahl Nitrogen	mg/L	Quarterly
Standard Minerals <sup>1</sup>	mg/L	Annually

<sup>1</sup> Standard Minerals shall include, at a minimum, the following: arsenic, boron, calcium, chloride, iron, magnesium, manganese, potassium, sodium, sulfate, total alkalinity (including alkalinity series), and hardness.

**III. REPORTING REQUIREMENTS**

All monitoring reports should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50MB should be emailed to: [centralvalleyfresno@waterboards.ca.gov](mailto:centralvalleyfresno@waterboards.ca.gov).

Documents that are 50 MB or larger should be transferred to a CD, DVD, or flash drive and mailed to the following address:

Central Valley Regional Water Quality Control Board  
Region 5 – Fresno Office  
1685 “E” St.  
Fresno, California 93706

To ensure that your submittal is routed to the appropriate staff person, the following information should be included in the body of the email or transmittal sheet:

Program: Non-15,  
WDID:5D102027001,  
Facility: Lion Raisins, Inc., Selma Raisin Packing Facility  
Order: R5-2018-0064  
County: Fresno  
Place ID: 256255

**A transmittal letter shall accompany each monitoring report.** The letter shall include a discussion of all violations of the WDRs and this MRP during the reporting period and actions taken or planned for correcting each violation. If the Discharger has previously submitted a report describing corrective actions taken and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. Pursuant to Section B.3 of the Standard Provisions and General Reporting Requirements, the transmittal letter shall contain a statement by the Discharger or the Discharger’s authorized agent certifying under penalty of perjury that the report is true, accurate and complete to the best of the signer’s knowledge.

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, groundwater, etc.), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported in the next scheduled monitoring report.

Laboratory analysis reports do not need to be included in the monitoring reports; however, all laboratory reports must be retained for a minimum of three years in accordance with Standard Provision C.3. For a Discharger conducting any of its own analyses, reports must also be signed and certified by the chief of the laboratory.

In addition to the requirements of Standard Provision C.3, monitoring information shall include the method detection limit (MDL) and the Reporting limit (RL) or practical quantitation limit (PQL). If the regulatory limit for a given constituent is less than the RL (or PQL), then any analytical results for that constituent that are below the RL (or PQL) but above the MDL shall be reported and flagged as estimated.

All monitoring reports that involve planning, investigation, evaluation or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1.

## A. Quarterly Monitoring Reports

Quarterly monitoring reports shall be submitted to the Central Valley Water Board by the **1<sup>st</sup> day of the second month after the quarter** (i.e., the January-March quarterly report is due by **May 1<sup>st</sup>**). Each Quarterly Monitoring Report shall include the following:

1. Results of **Influent Monitoring** specified in Section II. A.
2. Results of the **Effluent Monitoring** specified in Section II. B., including:
  - a. Calculation of average total nitrogen concentration for each month;
  - b. Calculation of the 12-month rolling average EC of the discharge for each month of the quarter using the EC value for that month averaged with the EC values for the previous 11 months;
  - c. Calculation of the maximum daily flow, monthly average flow, and cumulative annual flow, for each month of the quarter.
3. Results of **Land Application Area Monitoring** specified in Section II. C., including:
  - a. A summary of the inspection activities conducted by the Discharger for the LAA;
  - b. Calculated daily BOD<sub>5</sub> Loading rate for the LAA;
    - i. The mass of BOD<sub>5</sub> applied to the LAA on a daily basis shall be calculated using the following formula:

$$M = \frac{8.345(CV)}{A}$$

Where:

<i>M</i>	=	Mass of BOD <sub>5</sub> applied to a LAA in lbs/ac/day
<i>C</i>	=	Concentration of BOD <sub>5</sub> in mg/L based on the most recent monitoring result collected
<i>V</i>	=	Volume of wastewater applied to the LAA in millions of gallons per day
<i>A</i>	=	Area of the LAA irrigated in acres
8.345	=	Unit conversion factor.

- c. Calculated cycle average BOD<sub>5</sub> loading rate for the LAA.
      - i. The mass of BOD<sub>5</sub> applied to the LAA on a cycle average basis shall be calculated using the following formula:

$$M = \frac{8.345(CV)}{AT}$$

Where:

<i>M</i>	=	Mass of BOD <sub>5</sub> applied to an LAA in lbs/ac/day
<i>C</i>	=	Concentration of BOD <sub>5</sub> in mg/L based on the three most recent monitoring results
<i>V</i>	=	Total volume of wastewater applied to the LAA during the irrigation cycle, in millions of gallons
<i>A</i>	=	Area of the LAA irrigated in acres
<i>T</i>	=	Irrigation cycle length in days (from the first day water was applied to the last day of the drying time)
8.345	=	Unit conversion factor.

4. Results of **Groundwater Monitoring**, as specified in Section II. D., including:

- a. A narrative description of all preparatory, monitoring, sampling, and sample handling for groundwater monitoring.
  - b. A field log for each well documenting depth to groundwater; method of purging; parameters measured before, during, and after purging; sample preparation (e.g., filtering); and sample preservation.
  - c. Calculation of the groundwater elevation at each monitoring well, and determination of groundwater flow direction and gradient on the date of measurement.
  - d. Summary data tables of historical and current water table elevations and analytical results.
  - e. A scaled map showing relevant structures and features of the facility, the locations of monitoring wells, surface waters, and groundwater elevation contours referenced to an appropriate datum (e.g., National Geodetic Vertical Datum).
5. Results of **Residual Solids Monitoring** as specified in Section II. E.
  6. Results of **Water Supply Monitoring** as specified in Section II. F.
    - a. If multiple sources are used, the Discharger shall calculate the flow-weighted average concentrations for each constituent monitored. Results must include supporting calculations.
    - b. For each month of the quarter, calculation of the flow-weighted 12-month rolling average EC of the source water using monthly flow data and source water EC values for the most recent four quarters.
  7. A comparison of monitoring data to the effluent limitations and discharge specifications and an explanation of any violation of those requirements.
  8. For the LAA, a comparison of monitoring data to the loading rate limitations and discharge specifications and an explanation of any violation of those requirements.
  9. A copy of calibration log page(s) verifying calibration of all hand-held monitoring instruments performed during the quarter.

## **B. Annual Monitoring Reports**

An Annual Report shall be submitted by **1 February of each year**, and shall include the following:

1. Total annual effluent flow, and the average monthly flows for each month of the year, compared to the total annual flow limitation of the WDRs.
2. For the LAA, a chronological log of dates of fertilizer application, irrigation, precipitation, and runoff control operations. Nitrogen and salt loading calculations shall be included.
3. Calculated flow-weighted annual average FDS concentration for the LAA.
  - a. The flow-weighted annual average FDS concentration shall be calculated using the following formula:

$$C_a = \frac{\sum_{i=1}^{12} [(C_{Pi} \times V_{Pi}) + (C_{Si} \times V_{Si})]}{\sum_{i=1}^{12} (V_{Pi} + V_{Si})}$$

- Where:
- $C_a$  = Flow-weighted average annual FDS concentration in mg/L
  - $i$  = The number of the month (e.g., January = 1, February = 2, etc.)
  - $C_{Pi}$  = Monthly average process wastewater FDS concentration for calendar month  $i$  in mg/L
  - $C_{Si}$  = Monthly average supplemental irrigation water FDS concentration for calendar month  $i$  in mg/L (considering each supplemental source separately)
  - $V_{Pi}$  = Volume of process wastewater applied to LAA during calendar month  $i$  in million gallons
  - $V_{Si}$  = Volume of supplemental irrigation water applied to LAA during calendar month  $i$  in million gallons (considering each supplemental source separately)

4. Calculated total nitrogen loading rate for each LAA for each month and total annual loading to date.
  - a. The mass of total nitrogen applied to each LAA on an annual basis shall be calculated using the following formula and compared to published crop demand for the crops actually grown:

$$M = \sum_{i=1}^{12} \frac{(8.345(C_i V_i) + M_x)}{A}$$

- Where:
- $M$  = Mass of nitrogen applied to LAA in lbs/ac/yr
  - $C_i$  = Monthly average concentration of total nitrogen for month  $i$  in mg/L
  - $V_i$  = Volume of wastewater applied to the LAA during calendar month  $i$  in million gallons
  - $A$  = Area of the LAA irrigated in acres
  - $i$  = The number of the month (e.g., January = 1, February = 2, etc.)
  - $M_x$  = Nitrogen mass from other sources (e.g., fertilizer and compost) in pounds
  - 8.345 = Unit conversion factor

5. Concentration versus time graphs for each monitored constituent using all historic groundwater monitoring data. Each graph shall show the background groundwater concentration range and the Groundwater Limitation as horizontal lines at the applicable concentration.
6. An evaluation of the groundwater quality beneath the site, a determination of whether any groundwater limitations were exceeded in any well at any time during the calendar year, an assessment of why groundwater limitations were exceeded, and recommendations for further testing or corrective actions to address the exceedances.
7. A summary of information on the disposal of sludge and/or solid waste during the calendar year.

8. A discussion of compliance and the corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements.
9. Monitoring equipment maintenance and calibration records, as described in Standard Provision C.4.
10. A statement of when the wastewater treatment system Operation and Maintenance Manual was last reviewed for adequacy and a description of any changes made during the year.
11. A discussion of any data gaps and potential deficiencies or redundancies in the monitoring system or reporting program.

I, PATRICK PULUPA, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of a Monitoring and Reporting Program issued by the California Regional Water Quality Control Board, Central Valley Region, on 2 August 2018.

ORIGINAL SIGNED BY  
PATRICK PULUPA, Executive Officer

## GLOSSARY

BOD <sub>5</sub>	Five-day biochemical oxygen demand
CaCO <sub>3</sub>	Calcium carbonate
DO	Dissolved oxygen
EC	Electrical conductivity at 25° C
FDS	Fixed dissolved solids
NTU	Nephelometric turbidity unit
TKN	Total Kjeldahl nitrogen
TDS	Total dissolved solids
TSS	Total suspended solids
Continuous	The specified parameter shall be measured by a meter continuously.
24-hr Composite	Samples shall be a flow-proportioned composite consisting of at least eight aliquots over a 24-hour period.
Daily	Every day except weekends or holidays.
Twice Weekly	Twice per week on non-consecutive days.
Weekly	Once per week.
Twice Monthly	Twice per month during non-consecutive weeks.
Monthly	Once per calendar month.
Quarterly	Once per calendar quarter.
Semiannually	Once every six calendar months (i.e., two times per year) during non-consecutive quarters.
Annually	Once per year.
mg/L	Milligrams per liter
mL/L	Milliliters [of solids] per liter
µg/L	Micrograms per liter
µmhos/cm	Micromhos per centimeter
gpd	Gallons per day
mgd	Million gallons per day
MPN/100 mL	Most probable number [of organisms] per 100 milliliters

WASTE DISCHARGE REQUIREMENTS ORDER NO. R5-2018-0064  
LION RAISINS, INC.  
SELMA RAISIN PACKING FACILITY  
FRESNO COUNTY

**INFORMATION SHEET**

**Background**

Lion Raisins, Inc. (Discharger or Lion Raisins) owns and operates the Selma Raisin Packing Plant (Facility) at 9500 South DeWolf Avenue, about three miles northwest of the City of Selma in Fresno County. The Facility is composed of a Dehydrator Plant and a Packing Plant. The Dehydrator Plant operates between mid-August and mid-October and discharges to the Selma-Kingsburg-Fowler-Wastewater Treatment Facility (SKF-WWTF). The dehydrator plant was constructed in 1969. The Packing Plant opened in 1999. The Packing Plant generally operates all year (e.g., 248 days during 2015). The Facility generates wastewater by washing grapes, raisins, equipment and floors in both plants with supply water from two on-site wells. The Facility's wastewater discharges are depicted in the Process Flow Schematic (Attachment C). The Facility's storm water is diverted and collected in an on-site retention pond located in the southeast portion of the site segment containing buildings. Through an arrangement with SKF-WWTF, 20 percent of the Packing Plant wastewater and 100 percent of the Dehydrator Plant wastewater are discharged into the SKF-WWTF, while 80 percent of the Packing Plant wastewater is discharged to the land application disposal area via a sprinkler system. The wastewater distribution system utilizes 57 acres for land application of wastewater.

In 1993, Waste Discharge Requirements (WDR) Order No. 93-099 regulated the discharge of the dehydrator plant wastewater to an adjacent 20-acre almond orchard. Order 93-099 limited the discharge to 23,000 gallons per day (gpd) from 15 August to 15 October and 43,000 gpd from 16 October through 1 March. Prior to expanding its plant, the Discharger submitted a Report of Waste Discharge (RWD), dated 13 March 1998, in support of revising its WDRs to increase the quantity of food-processing wastewater discharged to land. The RWD indicated that the Discharger proposed to annually land dispose about 120,000 gpd from January through August and 160,000 gpd from September through December, or 37 million gallons annually. In a 15 March 2000 letter, the Discharger proposed to increase its annual discharge to about 300,000 gpd, or 82.8 million gallons annually, on to 57 acres of land. The Discharger started discharging packing plant wastewater to the LAA in June 1999. In 2000, Order 5-00-094 limited the Discharger's maximum daily discharge to 360,000 gpd and its annual discharge to 37 million gallons on to 57 acres of land. This Order includes the same flow limits of 360,000 gpd (maximum daily discharge limit) and 37 million gallons (total annual flow).

An annual water application summary for the Facility from 2014 to 2017 is included in Finding 8 of the Order.

**Wastewater Generation and Disposal**

Wastewater generated at the packing plant is screened to remove the larger, solid, organic materials. The screenings are sold to Kings River Commodities. The screened Packing Plant wastewater is pH adjusted by adding a sodium hydroxide solution, calcium hydrated lime, or both, before discharging to the land application area (LAA).

The wastewater characteristics for 2016 are summarized in Finding 11, Table 3 of the Order.

The previous Order (5-00-094) authorized the discharge of wastewater to dirt roads for dust control. Lion Raisins said such activity is not an ongoing practice and it does not anticipate using this practice in the future.

### **Compliance Issues**

Since the beginning of 2016, there have been two central compliance issues. First, the groundwater monitoring wells have not had any water in them to sample since 2013. Lion Raisins was required, by a 10 August 2017 letter from the Central Valley Water Board, to install new monitoring wells by 1 February 2018. Provision H.3 of this Order requires Lion Raisins to submit a Groundwater Limitations Compliance Assessment Plan. Second, for 40 of the 52 weeks in 2016, Lion Raisins exceeded its weekly average five-day biochemical oxygen demand (BOD<sub>5</sub>) loading rate. Lion Raisins received a Notice of Violation (NOV) in early 2017 regarding the BOD<sub>5</sub> loading rate violation and has reportedly complied with the weekly average BOD<sub>5</sub> loading rate for each week (through February 2018) since receiving the NOV.

### **Groundwater Considerations**

The quarterly groundwater quality monitoring data (from the second half of 2011 through the first quarter of 2013), the source water quality data (for 2016), and the wastewater quality data (for 2016) are summarized in Table 4 of the Order. Up-gradient concentrations (Monitoring Well MW-1) appear to have been influenced by percolation from the two unlined canals (shown in Attachment B) that border the site on the southeast (Fowler Switch Canal) and north (Iowa Ditch). There is uncertainty of how representative the monitoring data is for the up-gradient well, MW-1. Therefore, a new monitoring well, MW-4, has been installed approximately 500 feet to the north of MW-1, away from the Fowler Switch Canal. Similarly, a new well, MW-5, was installed approximately 170 feet to the northwest of MW-2 and further away from the Fowler Switch Canal.

Groundwater considerations are discussed in Findings 17 and 18 of the Order.

### **Antidegradation**

Antidegradation analysis and conclusions are discussed in Findings 36 through 43 of the Order.

### **Discharge Prohibitions, Effluent Limitations, Discharge Specifications, and Provisions**

The Order limits the maximum daily discharge flow to 360,000 gpd (or 0.36 mgd), and sets a maximum annual flow limit of 37 million gallons, the same as the existing order, Order 5-00-094. The Order sets a cycle average BOD<sub>5</sub> loading limit of 100 lbs/acre/day for the LAA, a maximum day BOD<sub>5</sub> limit of 300 lbs per day, and requires that wastewater be applied at agronomic rates. The Order also includes provisions requiring the Discharger to prepare and implement a Wastewater and Nutrient Management Plan and to complete a Groundwater Limitations Compliance Assessment Plan. The Order prescribes groundwater limitations that state that the discharge shall not cause or contribute to groundwater containing concentrations in excess of

the maximum contaminant levels (MCLs) identified in Title 22 or in excess of natural background water quality, whichever is greater.

### **Monitoring Requirements**

Section 13267 of the Water Code authorizes the Central Valley Water Board to require monitoring and technical reports as necessary to investigate the impact of waste discharges on waters of the State. Water Code Section 13268 authorizes assessment of civil administrative liability where appropriate. The Order includes influent, effluent, source/irrigation water, LAA, and groundwater monitoring requirements. This monitoring is necessary to characterize the discharge and evaluate compliance with the effluent/groundwater limitations and the discharge and LAA specifications prescribed in the Order.

### **CV-SALTS Regulatory Considerations**

The Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. These programs once effective, could change how the Central Valley Water Board permits discharges of salt and nitrate. The Salinity Control Program currently being developed would subject dischargers that do not meet stringent salinity numeric values (700 umhos/cm EC as a monthly average to protect the AGR beneficial use and 900 umhos/cm as an annual average to protect the MUN beneficial use) to performance-based salinity requirements, and would require these dischargers to participate in a Basin-wide Prioritization and Optimization Study to develop a long-term strategy for addressing salinity accumulation in the Central Valley.

The level of participation required of dischargers whose discharges do not meet stringent salinity requirements will vary based on factors such as the amount of salinity in the discharge, local conditions, and type of discharge. The Central Valley Water Board anticipates that the CV-SALTS initiative will result in regulatory changes that will be implemented through conditional prohibitions and modifications to many WDRs region-wide, including the WDRs that regulate discharges from the Lion Raisins, Inc. Selma Raisin Packing Facility. More information regarding this regulatory planning process can be found at the following link:  
[https://www.waterboards.ca.gov/centralvalley/water\\_issues/salinity/](https://www.waterboards.ca.gov/centralvalley/water_issues/salinity/)

### **Reopener**

The conditions of discharge in the Order were developed based on currently available technical information and applicable water quality laws, regulations, policies, and plans, and are intended to assure conformance with them. The Order sets limitations based on the information provided thus far. If applicable laws and regulations change, or once new information is obtained that will change the overall discharge and its potential to impact groundwater, it may be appropriate to reopen the Order.

### **Legal Effect of Rescission of Prior WDRs or Orders on Existing Violations**

The Central Valley Water Board's rescission of prior waste discharge requirements and/or monitoring and reporting orders does not extinguish any violations that may have occurred during the time those waste discharge requirements or orders were in effect. The Central Valley

LION RAISINS, INC.

SELMA RAISIN PACKING FACILITY

FRESNO COUNTY

**INFORMATION SHEET**

Water Board reserves the right to take enforcement actions to address violations of prior prohibitions, limitations, specifications, requirements, or provisions of rescinded waste discharge requirements or orders as allowed by law.