

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER R5-2012-0041

WASTE DISCHARGE REQUIREMENTS
FOR
SUNSWEEP DRYERS, INC.
PRUNE DEHYDRATOR
GLENN COUNTY

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

1. Sunsweet Dryers, Inc., (hereafter Discharger) submitted a Report of Waste Discharge (RWD) dated 8 December 2009 to revise Waste Discharge Requirements (WDRs) Order 91-165 for the discharge of prune processing wastewater to land. RWD addenda were submitted on 1 July 2010, 31 August 2010, 16 June 2011, and 28 December 2011.
2. The Sunsweet Dryers, Inc. Prune Dehydrator facility (hereafter Facility) is located about 8 miles northeast of Orland on Wyo Avenue/Co. Rd. 9, Section 11, T22N, R2W, MDB&M. The land application area is directly north and adjacent to the facility. The Facility and land application area are shown on Attachment A and B, which is attached hereto and made part of this Order by reference.
3. In 1991, the Discharger obtained coverage under WDRs Order 91-165 for discharge of wastewater from prune processing operations for 2.9 million gallons annually to land. In 2009, the Discharger requested a renewal of the permit to include a walnut hulling processes at the facility.
4. The Discharger owns and operates a prune dehydrating process that typically begins the first of August and ends mid-September. During this time, processing occurs over approximately twenty-five days, with a discharge of 90,000 gpd during processing, and an additional discharge of 30,000 gpd for approximately 10 days following processing. The walnut hulling process would follow after the above time frame in late September through November, adding about 6,000 gpd for 50 days to the Facility's discharge. The Facility's total discharge will be approximately 3.2 million gallons per year.
5. During processing, raw prunes are first conveyed to a dipping tank for washing and then into the Facility for dehydration. For the walnut hulling processes the nuts are screened for debris (leaves and twigs) then dipped in the float tank then sorted and dried in the Facility before shipping.
6. No chemicals are used at the Facility for cleaning; equipment is cleaned with a high-pressure washer. Approximately 55 gallons of non-toxic and biodegradable "Odor Control Cherry" is used per year to reduce odors in the concrete wastewater storage basin.

7. Wastewater generated at the Facility is a combination of three waste streams: (1) rinse water from the prune dipping tank, (2) rinse water from walnut float tank, and (3) water generated from equipment wash down.
8. Wastewater is stored at the Facility in a concrete storage basin until a sufficient quantity is generated for transfer to the 26-acre land application area. Wastewater is transported to the land application site via pipeline; wastewater is discharged via check valves and is mixed with irrigation water, which is discharged to the land application site at the same time.
9. Wastewater flows from 2009 to 2011 are presented below.

Season	Processing Days	Gallons /Day (max)	Total Discharge (gallons)
2011	57	86,200	1,486,800
2010	27	42,437	1,145,800
2009	29	7,992	231,770

10. The total volume of wastewater and supplemental irrigation water (measured in inches over the application area) applied each year at the 26-acre land application area is as follows:

	<u>Total Annual Discharge (gallons)</u>	<u>Total Depth of Wastewater Applied Each Year (inches)</u>
Wastewater (current)	1,486,800	2
Wastewater (future)	3,200,000	5
Irrigation Water	22,460,520	32

11. The Discharger sampled the source well water on 6/22/2010, and the data is summarized below:

<u>Parameter</u>	<u>Grab</u>	<u>Units</u>
Nitrate as N	.27	mg/L
Total Kjeldahl Nitrogen	0.8	mg/L
Ammonia	0.1	mg/L
Total Dissolved Solids	205	mg/L
Fixed Dissolved Solids	186	mg/L
Specific Conductance	365	µmhos/cm
Chloride	15.7	mg/L
Sulfate	2.0	mg/L
Alkalinity as CaCO ₃	179	mg/L
Bicarbonate	219	mg/L
Carbonate	ND	mg/L
Calcium	22.1	mg/L
Magnesium	10.2	mg/L

Sodium	42.8	mg/L
pH	6.4	pH units
Hardness	97	mg/L
Silica	21	mg/L
Boron	68.0	ug/L
Iron	227	ug/L
Manganese	49	ug/L
Total Phosphorus	ND	mg/L

ND – Not detected

12. Wastewater is collected and combined within a concrete storage basin located at the Facility prior to land application. Thus, although there are variations in the volume and quality of the wastewater generated on a daily basis, the variations are normalized in the storage basin. Therefore, a grab sample is considered representative of the wastewater discharged to the land application area.
13. The RWD provided an analysis of loading rates for BOD, nitrogen, and TDS. The analysis was performed in accordance with the *Manual of Good Practice for Land Application of Food Processing/Rinse Water* (the Food Processing Manual), published by the California League of Food Processors, which measures the acceptability of wastewater application according to risk categories. It should be noted that although the Food Processing Manual has not been subject to scientific peer review, the Central Valley Water Board was consulted during its preparation. Compliance with the guidelines in the Food Processing Manual demonstrates that the Discharger is implementing treatment and control measures consistent with those promoted by the industry to limit the potential for groundwater degradation.

Risk Category	Description
1 (Lowest) ¹	Loading rates substantially below agronomic rates. Risk indistinguishable from good farming operations. Waiver typically appropriate from small systems, depending upon current waiver eligibility criteria.
2	Loading rates or conditions up to agronomic criteria, providing minimal risk of unreasonable degradation of groundwater. Some risk for systems with water distribution, crop and/or operational problems; causing treatment and reuse effects to be inadequate or spotty.
3	Total loading rates above agronomic rates, but still within calculated capacities using formulas in this chapter, and with some safety factors. Requires detailed planning, good operation, and monitoring. May require specific design to enhance treatment and losses of some constituents.
4 (Highest)	Loading rates above calculated capacities. Pilot testing and/or intensive monitoring likely to be required to prove efficacy.

¹Based on loading rates alone, category 1 systems should typically be eligible for a waiver or simplified waste discharge requirements.

14. At current capacity, the hydraulic loading rate is 1,923 gallons per acre per day, based on a maximum of 90,000 gallons of wastewater applied over the 26-acre land application area each day. Currently, instantaneous BOD load does not exceed 35 pounds per acre per day. At future capacity, the hydraulic loading rate would also be 1,923 gallons per acre per day based on a maximum of 90,000 of wastewater applied over the 26-acre land application area each day. The instantaneous BOD load at buildout would not exceed 35 pounds per acre per day. For a Risk Category 1, the loading rate for BOD must not exceed 50 pounds per acre per day. In addition, USEPA recommends a BOD loading rate not to exceed 100 lbs per acre per day in order to avoid nuisance conditions, according to publication No. 625/3-77-007C, Pollution Abatement in the Fruit and Vegetable Industry. The BOD loading rate from the discharge is significantly below the USEPA nuisance level and the threshold for a Risk Category 1.

15. For a Risk Category 1, the loading rate of nitrogen must be less than half of the agronomic rate on an annual basis. The projected nitrogen loading rates for the current capacity and future capacity are shown below:

	<u>Annual Flow</u> <u>(million gallons)</u>	<u>Annual Nitrogen Loading Rate</u> <u>(lbs/acre/yr)</u>
Current Capacity	2.9	5.8
Future Capacity	3.2	6.1

16. The loading rates calculated are significantly below the crop uptake of 200 lbs/acre/yr of nitrogen for a Risk Category 1. There are no other additions of nitrogen to the land application field including irrigation or crop amendments.

17. The Discharger obtained groundwater samples from a source well and several agricultural wells on site; these wells range in depth from 350 to 650 feet deep.

<u>Parameter</u>	<u>Source Well</u>	<u>Well #1</u> <u>(downgradient)</u>	<u>Well #2</u>	<u>Well #3</u> <u>(upgradient)</u>	<u>Wastewater</u>	<u>Lowest WQO</u>
EC, umhos/cm	428	847 ⁵	816 ⁵	711 ⁵	608 ⁵	700 ¹
TDS, mg/L	220	480	450	400	336	450 ²
FDS, mg/L	214	448	372	345	606	--
Sulfate, mg/L	6.1	65.2	51.9	39.4	5.3	250 ³
Nitrate, mg/L	0.27	39	18	22	0.17	45 ⁶
Chloride, mg/L	21.3	51.2	43.5	24.3	30.2	106 ⁴

¹Ag. Goal (Food & Ag. Org. of United Nations). DPH secondary MCL is 900 umhos/cm.

²Ag. Goal (Food & Ag. Org. of United Nations). DPH secondary MCL is 500 mg/L.

³DPH secondary MCL.

⁴Ag. Goal (Food & Ag. Org. of United Nations). DPH secondary MCL is 250 mg/L.

⁵3 year average (2009 – 20011)

⁶DPH primary MCL

18. In addition to the groundwater data provided above, groundwater data was obtained from irrigation and drinking water wells in the vicinity of the Facility and land application area. The City of Orland data included TDS concentrations from drinking water wells that ranged from 158 mg/L to 209 mg/L (well depths ranged from 268 to 550 feet deep).
19. The Food Processing Manual uses mineral salinity concentration risk categories to evaluate potential salinity impacts to groundwater; it compares process/rinse wastewater inorganic dissolved solids (FDS) concentrations to TDS concentrations in irrigation water. Since organic dissolved solids are broken down in the soil profile, the salinity of process/rinse water is best measured by the concentration of FDS; although FDS is slightly less than the total mineral salinity of process/rinse wastewater, it is a reasonable basis for comparison with irrigation water TDS, which represents slightly less than the total salinity from irrigated agriculture including fertilizers and soil amendments. The FDS concentration of the wastewater sample was 606 mg/L. The concentrations of TDS in the source well and agricultural supply wells at the land application area ranged from 220 mg/L to 484 mg/L.
20. The RWD stated that groundwater at the land application area is flowing northeast at an approximate gradient of 0.00126 ft/ft.
21. The RWD provided three monthly water balances for the land application area that evaluated the following flows: current wastewater flows, wastewater flows at facility capacity, and wastewater flows after facility expansion (walnut hull washing). The components of the water balance included applicable precipitation for a 100-year return period, evapotranspiration, percolation, and wastewater and irrigation water rates. The water balances demonstrated that there is no significant potential for flooding and/or runoff to occur at the land application area due to irrigation or wastewater application.
22. Domestic wastewater at the Facility is discharged separately to a septic tank / leachfield system not regulated by the county. This Order requires monthly visual monitoring of the leachfield for surfacing effluent and excessive weed growth when the Facility is in operation; in addition, the Order requires septic tank maintenance inspections every five years.

Site Specific Conditions

23. Average annual precipitation and evaporation in the vicinity of the Facility and land application area are 19.52 inches and approximately 60 inches, respectively. The Discharger applies a total volume of 30 inches of irrigation water over the year. The depth of wastewater application to the land application area is approximately five inches each year.
24. According to the USDA Natural Resources Conservation Service soil survey, soils in the land application area are primarily loam, but also contain significant quantities of gravelly loam

and silt loam. The water balance in the RWD utilized a conservative infiltration rate for silts and silty clays; an infiltration rate of 0.028 feet per day was used.

25. At the land application area, surface water flows northeast to a tailwater retention area. Wastewater runoff should be non-existent due to the low application rates and prohibitions against discharge during wet weather. Surface water drainage at the land application area is to Stony Creek.
26. At the Facility, surface drainage flows southeast. All rainfall is directed to sumps around the property and sent to the storage basin for discharge to the land application area. All storm water from the processing facility is contained on site.
27. The Discharger is not required to obtain coverage under the National Pollutant Discharge Elimination System Industrial Storm Water Permit since all storm water runoff at the Facility and land application area is retained onsite and does not discharge into a water of the United States.

Basin Plan, Beneficial Uses and Regulatory Considerations

28. The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins*, Fourth Edition, revised September 2009 (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 Resources Control Board. Pursuant to Water Code section 13263(a), WDRs must implement the Basin Plan.
29. Surface water drainage at the land application area is to Stony Creek, which is tributary to the Sacramento River. The Basin Plan designates the beneficial uses of Stony Creek as: agricultural irrigation and stock watering; contact recreation; other non-contact recreation; warm and cold freshwater habitat; cold migration; warm and cold spawning; and wildlife habitat.
30. The beneficial uses of underlying groundwater are municipal and domestic water supply, agricultural supply, industrial service supply, and industrial process supply.
31. State Water Resources Control Board Resolution 68-16 (*The Policy with Respect to Maintaining High Quality Waters of the State*) (hereafter Resolution 68-16) 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 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 and control (BPTC) to minimize degradation.

32. The Discharger conducted an antidegradation analysis in the RWD that evaluated potential impacts of the discharge on groundwater quality. Agronomic loading rates for BOD, nitrogen, and TDS were calculated and evaluated in accordance with the Food Processing Manual. The analysis showed that the loading rates proposed by the Discharger are substantially below agronomic rates and that the risk to groundwater is indistinguishable from good farming practices. The antidegradation analysis concluded that the discharge will not result in any measureable groundwater degradation.

33. The Facility provides treatment and control of the discharge that includes:

- a. Removal of solids at the plant before discharge to the land application area; solids are hauled offsite, dried, and used in compost;
- b. Water softeners and chemicals are not used at the Facility;
- c. Wastewater is stored in a concrete storage basin;
- d. Application of wastewater at rates that will not allow wastewater to stand for more than 24 hours;
- e. Daily inspection of the land application area during discharge;
- f. Application of wastewater below recommended agronomic loading rates for BOD, nitrogen, and TDS;
- g. Calculation of loading rates monthly for BOD and annually for inorganic TDs and nitrogen.
- h. Preparation and implementation of a Wastewater and Nutrient Management Plan;
- i. Preparation and implementation of a Salinity Evaluation Control Plan;

34. The discharge is consistent with Resolution 68-16 because:

- a. The discharge is consistent with the maximum benefit to the people of the State. The discharge will not result in any measureable groundwater degradation and the Discharger provides jobs in a small economically disadvantaged community. In addition, the use of wastewater for irrigation of crops results in the Discharger using less supplemental irrigation water, which is a benefit to the people of the State;

- b. The discharge will not unreasonably affect present and anticipated beneficial uses because the discharge will not result in any measurable groundwater degradation. Wastewater is land applied below agronomic loading rates and supplemented with fresh irrigation water;
 - c. The discharge will not result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives. Groundwater quality of the deeper aquifer under the land application area is not impacted from the discharge and does not exceed water quality objectives;
 - d. The Discharger implements BPTC by removing solids from the wastewater, disposing of waste through an independent contractor, not using chemicals, storing wastewater in a concrete basin, applying wastewater below agronomic loading rates, and inspecting the land application area daily during the discharge season.
 - e. Therefore, the discharge is consistent with Resolution 68-16 because the discharge will not result in any measureable groundwater degradation.
35. The discharge of wastewater to land authorized herein is exempt from the requirements of California Code of Regulations, title 27 ("Title 27"), section 20005 et seq. pursuant to Title 27, section 20090(b), because:
- a. The Central Valley Water Board is issuing waste discharge requirements that will be protective of groundwater. The antidegradation analysis provided in the RWD demonstrated that the discharge will not result in any measureable groundwater degradation;
 - b. The discharge complies with the Basin Plan, and groundwater quality from the deeper aquifer below the land application site does not exceed water quality objectives. With wastewater stored in concrete basin and application of wastewater below agronomic loading rates to 26 acres of pasture land for a short period of time (approximately 35 days annually), the discharge is not anticipated to result in measureable groundwater degradation;
 - c. The wastewater does not need to be managed according to California Code of Regulations, title 22, section 66261.1 et seq., as a hazardous waste.
36. Based on the limited volume of the discharge, the seasonal nature of the discharge, the character of the waste the direct application of wastewater to the land application area below agronomic rates, the use of supplemental irrigation water, site-specific soil and groundwater conditions, and the implementation of BPTC, the discharge has minimal potential to degrade groundwater quality if properly managed. However, it is appropriate to require that the Discharger not allow the salinity of the wastewater to increase, and to require that the Discharger develop and implement a salinity control plan. In addition, the Discharger is required to calculate loading rates monthly for BOD and annually for nitrogen and inorganic

TDS. If loading rates exceed those detailed in the antidegradation analysis, then further BPTC evaluation will be required, and improvement to the treatment and control measures, and/or using additional land for wastewater application, will be necessary.

37. All portions of the Facility (treatment/storage/disposal area) are outside of the 100-year flood plain.
38. Glenn County has certified a Negative Declaration (original date of 26 November 1990, with an amendment for the walnut hull processing project on 13 August 2009), that concluded that the project will not result in significant effects to the environment in accordance with the California Environmental Quality Act (CEQA)(Pub. Resources Code, § 21000 et seq.) and the State CEQA Guidelines.

General Findings

39. 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 to discharge.
40. Water Code Section 13267(b) states that:

In conducting an investigation ... the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region ... shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report 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 R5-2012-0041 are necessary to assure compliance with these waste discharge requirements. The Discharger owns and operates the facility that discharges the waste subject to this Order.

Public Notice

41. All of the above and supplemental information and details in the attached Information Sheet, which is incorporated by reference herein, were considered in establishing the following conditions of discharge.
42. The Discharger and interested agencies and persons have been notified of the intent to prescribe waste discharge requirements for this discharge, and they have been provided an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
43. All comments pertaining to the discharge were heard and considered in a public meeting.

IT IS HEREBY ORDERED that, pursuant to Sections 13263 and 13267 of the Water Code, Sunsweet Dryers, Inc. and its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the Water Code and regulations adopted thereunder, shall comply with the following:

A. Discharge Prohibitions:

1. Discharge of wastes to surface waters or surface water drainage courses is prohibited.
2. Bypass or overflow of untreated wastes, except as allowed by Provision E.2. of Standard Provisions and Reporting Requirements, is prohibited.
3. Discharge of waste classified as 'hazardous', as defined in California Code of Regulations, title 23, section 2521(a) is prohibited. Discharge of waste classified as 'designated', as defined in Water Code section 13173, in a manner that causes violation of groundwater limitations, is prohibited.
4. Discharge of irrigation tailwater from the wastewater land application area to any off-site area or drainage course is prohibited.
5. Application of treated wastewater in a manner or location other than that described herein is prohibited.

B. Discharge Specifications

1. Prior to the addition of the walnut hulling process to the Facility, the total annual wastewater flow shall not exceed 2.9 Million gallons per year. After the Facility adds the walnut hulling process, the total annual wastewater flow shall not exceed 3.2 million gallons per year. And at no time shall discharge exceed 90,000 gallons per day.
2. Objectionable odors originating at the facility (including the wastewater land application area) shall not be perceivable beyond the property limits.
3. The Discharger shall operate all systems and equipment to maximize treatment of wastewater and optimize the quality of the discharge.
4. No waste constituent shall be released or discharged, or placed where it will be released or discharged, in a concentration or in a mass that causes violation of groundwater limitations.
5. All conveyance, treatment, storage, and disposal units shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.

6. The facility shall have sufficient treatment, storage, and disposal capacity to accommodate allowable wastewater flow and design precipitation. 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.

C. Land Application Area Specifications

1. The perimeter of the land application area shall be graded to prevent ponding along public roads or other public areas and prevent runoff onto adjacent properties not owned or controlled by the Discharger.
2. The Discharger shall maximize use of the available land application area to minimize waste constituent loading rates.
3. Hydraulic loading of wastewater (and supplemental fresh water) to the land application areas shall be at reasonable agronomic rates designed to minimize percolation of waste constituents below the evaporative and root zones, except as needed to promote surface soil chemistry that is consistent with sustainable agricultural land uses.
4. Application of waste constituents to the land application area shall be at reasonable agronomic rates to preclude creation of nuisance or degradation of groundwater, considering the crop, soil, climate, and irrigation management system. The annual nutritive loading of the land application area, including the nutritive value of organic and chemical fertilizers and of the wastewater shall not exceed the annual crop demand.
5. The irrigation system shall be designed and managed to ensure even application of wastewater over each irrigation field and prevent the discharge of tailwater and overspray outside of the land application area.
6. Irrigation with wastewater shall be performed in a manner to preclude runoff of wastewater from the land application area to adjacent property during saturated conditions.
7. There shall be no standing water in any portion of the land application area more than 24 hours after application of wastewater ceases.
8. The discharge shall not cause the buffering capacity of the soil profile to be exceeded nor shall it cause the soil to become reducing.

9. Application of process wastewater shall only occur where the field and irrigation system are maintained to provide uniform water distribution, minimize ponding, and provide complete tailwater control.
10. The land application area shall be managed to prevent breeding of mosquitoes and other vectors.
11. Tailwater ditches shall be maintained free of emergent, marginal, and floating vegetation.

D. Land Application Area Loading Rates

1. Average BOD loading to the land application area shall not exceed 50 lbs/acre/day, both long term and over the course of any discharge cycle (i.e., the time between successive applications.)

E. Solids Specifications

1. Any handling and storage of solids and/or sludge at the facility or the land application area shall be temporary, and 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 groundwater limitations of this Order.
2. Collected screening, and other solids removed from the liquid waste shall be disposed of in a manner approved by the Executive Officer and consistent with Title 27. Removal for further treatment, disposal, or reuse at sites (i.e., landfill, rendering plants, composting sites, soil amendment sites) operated in accordance with valid waste discharge requirements issued by a Regional Water Board will satisfy this specification.
3. Any proposed change in solids use or disposal practice shall be reported to the Executive Officer at least 90 days in advance of the change.

F. Groundwater Limitations

1. The discharge shall not cause underlying groundwater to contain any chemical constituent in concentrations statistically greater than background groundwater quality.

G. Provisions

1. **Within 90 days of adoption of the Order, the Discharger shall submit a Wastewater and Nutrient Management Plan** for the land application area. At a

minimum, the Plan must include procedures for daily monitoring of the plant operation and land application area during the processing season, an action plan to deal with objectionable odors and/or nuisance conditions, identification of additional acreage for future land application of wastewater, a discussion on blending wastewater and supplemental irrigation water to achieve maximum dilution, supporting data and calculations for monthly and annual water and nutrient balances, and management practices that will ensure wastewater, irrigation water, and commercial fertilizers are applied at agronomic rates.

2. **One year after adoption of the Order, the Discharger shall submit a Salinity Evaluation and Control Plan** detailing control measures taken to reduce salinity of the discharge. The Plan should also identify any additional methods that could be used to further reduce the salinity of the discharge to the maximum extent feasible, include an estimate on load reductions that may be attained through the methods identified, and provide a description of the tasks, cost, and time required to investigate and implement the various elements.

3. **Within 36 months of the effective date of this Order, the Discharger shall comply with the following task schedule**, which includes submittal of a groundwater monitoring system study work plan. The work plan shall include an assessment of existing monitoring well locations for monitoring groundwater in the vicinity of the disposal area.

Task	Due Date
Submittal of a work plan for a groundwater monitoring system study	Within 6 months of the effective date of this Order
Complete a report of the groundwater study findings	Within 36 months of the effective date of this Order

4. The Discharger shall comply with the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*, dated 1 March 1991, which are part of this Order. This attachment and its individual paragraphs are referred to as *Standard Provisions*.

5. The Discharger shall comply with Monitoring and Reporting Program (MRP) Order R5-2012-0041, which is part of this Order, and any revisions thereto as adopted by the Central Valley Water Board or approved by the Executive Officer. The submittal date shall be no later than the submittal date specified in the Monitoring and Reporting Program for Discharger self-monitoring reports.

6. The Discharger shall keep a copy of this Order at the Facility, including its Monitoring and Reporting Program, Information Sheet, Attachments, and Standard Provisions, for reference by operating personnel. Key operating personnel shall be familiar with its contents.
7. All technical reports required herein 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. To demonstrate compliance with sections 415 and 3065 of Title 16 of the California Code of Regulations, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.
8. 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.
9. The Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Accordingly, the Discharger shall submit to the Central Valley Water Board on or before each report due date the specified document or, if an action is specified, a written report detailing evidence of compliance with the date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus 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.
10. In the event of any change in control or ownership of land or waste treatment and storage facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the appropriate Regional Water Board office.
11. To assume operation 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 address and telephone number of the persons responsible for contact with the Regional Water Board and a statement. The statement shall comply with the signatory paragraph of *Standard Provision B.3.* and shall state 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.

12. If the Central Valley Water Board determines that waste constituents in the discharge have reasonable potential to cause or contribute to an exceedance of any groundwater quality objective, this Order may be reopened for consideration of additional limits or revision of numerical effluent or groundwater limitations, installation of groundwater monitoring wells, and/or BPTC evaluation for the constituents of concern.

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 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

or will be provided upon request.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 8 June, 2012.

Original signed by

PAMELA C. CREEDON, Executive Officer

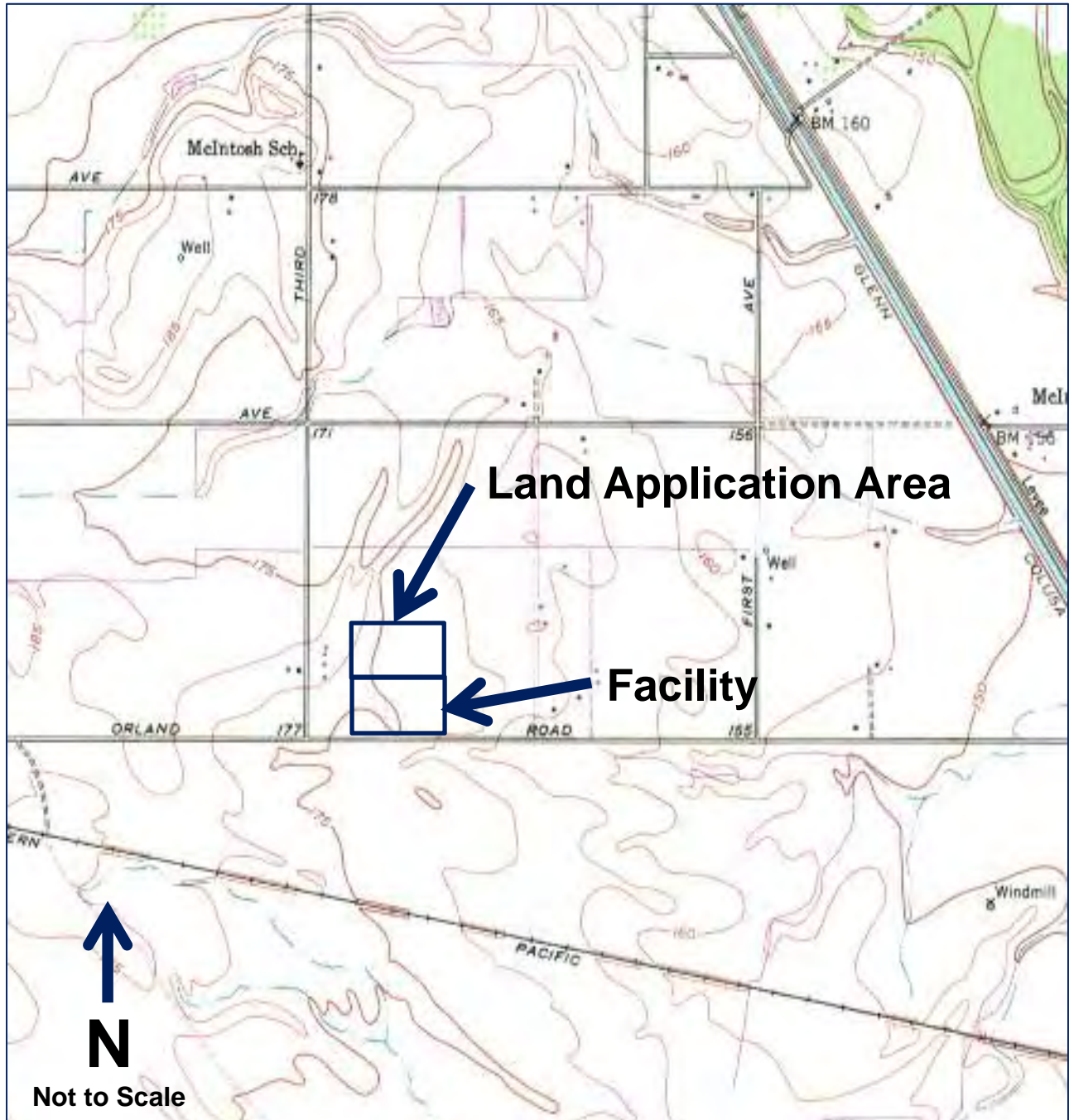


Facility



Not to Scale

Location Map
Sunsweet Dryers, Inc.
Prune Dehydrator
Glenn County



Topographic Map
Sunsweet Dryers, Inc.
Prune Dehydrator
Glenn County

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2012-0041

SUNSWEET DRYERS, INC.
PRUNE DEHYDRATOR
GLENN COUNTY

This monitoring and reporting program (MRP) is required pursuant to Water Code section 13267. The Discharger shall not implement any changes to this MRP unless and until the Central Valley Water Board adopts or the Executive Officer issues a revised MRP. Changes to sample location shall be established with concurrence of Regional Water Board staff, and a description of the revised stations shall be submitted for approval by the Executive Officer. All samples should be representative of the volume and nature of the discharge or matrix of material sampled. 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 Standard Provisions and Reporting Requirements for Waste Discharge Requirements, dated 1 March 1991 (Standard Provisions).

Field test instruments (such as pH) may be used provided that:

1. The operator is trained in the proper use of the instrument;
2. The instruments are calibrated prior to each use;
3. Instruments are serviced and/or calibrated at the recommended frequency by the manufacturer or in accordance with manufacturer instructions; and
4. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

In addition to details specified in Standard Provisions, Provisions for Monitoring C.3., records of monitoring information shall also include the following:

1. Analytical method;
2. Measured value;
3. Units;
4. Method detection limit (MDL);
5. Reporting limit (RL) (i.e. a practical quantitation limit or PQL); and

All laboratory results shall be reported down to the MDL. Non-detect results shall be reported as less than the MDL (<MDL). Results above the MDL, but below the concentration of the lowest calibration standard for multipoint calibration methods or below the reporting limit for other methods, shall be flagged as estimated.

Analytical procedures shall comply with the methods and holding times specified in: *Methods for Chemical Analysis of Water and Wastes* (EPA-600/4-79-020, 1983); *Methods for Determination of Inorganic Substances in Environmental Samples* (EPA/600/R-93/100, 1993); *Standard Methods for the Examination of Water and Wastewater*, 20th Edition 9WEF, APHA,

AWWA); and *Soil, Plant and Water Reference Methods for the Western Region, 2003, 2nd Edition* (hereafter Western Region Methods).

WASTEWATER MONITORING

Wastewater samples shall be collected after the last point of treatment at the Facility prior to dispersal into the irrigation system. The Discharger shall monitor the discharge for the constituents and frequencies specified below throughout the processing season and while there is a wastewater discharge to the land application area.

<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>
Daily Flow	Gallons	Continuous	Daily
Freeboard of Concrete Basin	feet	Measurement	Weekly
pH	pH units	Grab	Weekly
Electrical Conductivity	µmhos/cm	Grab	Weekly
Biochemical Oxygen Demand ¹	mg/L	Grab	Monthly
Total Dissolved Solids	mg/L	Grab	Monthly
Fixed Dissolved Solids	mg/L	Grab	Monthly
Total Nitrogen ²	mg/L	Grab	Monthly
General Minerals ³	mg/L	Grab	Annually

¹Five-day, 20°C.

²Total kjeldahl nitrogen and nitrate.

³General mineral analytes may vary depending on the lab, but shall include at least the following: alkalinity, bicarbonate, boron, calcium, carbonate, chloride, hardness, magnesium, phosphorus, potassium, sodium, and sulfate. An anion/cation balance shall accompany results.

GROUNDWATER WELL MONITORING

The Discharger shall monitor each groundwater monitoring well for the following:

<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency²</u>
Groundwater Elevation	0.01 feet MSL	Measurement	Twice per Year ¹
Groundwater Gradient	feet/foot	Calculated	Twice per Year ¹
Groundwater Direction	degrees	Calculated	Twice per Year ¹
pH	pH Units	Grab	Twice per Year ¹
EC	µmhos/cm	Grab	Twice per Year ¹
Nitrogen	mg/L	Grab	Twice per Year ¹
Total Dissolved Solids	mg/L	Grab	Twice per Year ¹

¹Monitoring shall be performed at the height of the wet (typically January/February) and dry (typically August/September) seasons.

²The Discharger may propose a reduction in frequency to annually provided the data demonstrate no significant differences in groundwater quality. Upgradient (i.e. background) and downgradient data shall be evaluated to

determine if there are significant differences in water quality. Reductions in monitoring frequency shall not occur until approved by the Executive Officer.

ONSITE WATER SUPPLY MONITORING

The supply water (source well) for the Facility shall be monitored for the following:

<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency²</u>
Electrical Conductivity	µmhos/cm	Grab	Twice per Year ¹
Total Nitrogen	mg/L	Grab	Twice per Year ¹
Total Dissolved Solids	mg/L	Grab	Twice per Year ¹
pH	pH Units	Grab	Twice per Year ¹

¹Monitoring shall be performed at the height of the wet (typically January/February) and dry (typically August/September) seasons. Dry season monitoring should be conducted at the end of the processing season (typically September).

²The Discharger may propose a reduction in frequency to annually provided the data demonstrate no significant seasonal variations in water quality. Reductions in monitoring frequency shall not occur until approved by the Executive Officer. Monitoring data from other programs may be substituted provided that compounds in that program include those in the table above.

IRRIGATION WATER SUPPLY MONITORING

The supplemental irrigation supply water (agricultural irrigation well(s)) for the land application area shall be monitored for the following:

<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency²</u>
Electrical Conductivity	µmhos/cm	Grab	Twice per Year ³
Total Nitrogen ¹	mg/L	Grab	Twice per Year ³
Total Dissolved Solids	mg/L	Grab	Twice per Year ³
pH	pH Units	Grab	Twice per Year ³

¹Total kjeldahl nitrogen plus nitrate

²The Discharger may propose a reduction in frequency to annually provided the data demonstrate no significant seasonal variations in water quality. Reductions in monitoring frequency shall not occur until approved by the Executive Officer. Monitoring data from other programs may be substituted provided that compounds in that program include those in the table above.

³Monitoring shall be performed at the height of the wet (typically January/February) and dry (typically August/September) seasons. Dry season monitoring should be conducted at the end of the processing season (typically September).

LAND APPLICATION AREA MONITORING

The Discharger shall monitor the land application area throughout the processing season and while there is a discharge. Monitoring of the land application area shall include the following:

<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>
Supplemental Irrigation Flow	Gallons per Well	Calculated	Daily ⁴
Rainfall	Inches	Measured ¹	Daily ⁴
Wastewater flow	Gallons	Metered	Daily ⁴
Wastewater application area	Acres	N/A	Daily ⁴
Wastewater application rate	gal/acre-day	Calculated	Daily ⁴
BOD loading ²			
Day of application	lbs/acre	Calculated	Daily ⁴
Cycle average	lbs/acre/day	Calculated	Daily ⁴
Nitrogen loading ³			
From wastewater	lbs/acre/year	Calculated	Annually ⁵
From irrigation water	lbs/acre/year	Calculated	Annually ⁵
From fertilizers	lbs/acre/year	Calculated	Annually ⁵
Inorganic TDS loading ³	lbs/acre/year	Calculated	Annually ⁵

¹Data obtained from the nearest National Weather Service rain gauge is acceptable.

²Loading rate to be calculated using the applied volume of wastewater, applied acreage, and average of the two most recent concentrations for BOD. The BOD loading rates shall be divided by the number of days between applications to determine cycle average.

³Wastewater nitrogen and inorganic TDS loading shall be calculated as a flow-weighted average using the applied volume of wastewater, actual application area, and the average concentration of total nitrogen and inorganic TDS for the season (starting as zero each January 1).

⁴Reporting frequency shall be Monthly.

⁵Reporting frequency shall be Annually.

During the processing season the Discharger shall inspect the wastewater land application area **at least once daily prior to and during discharge events** and observations from those inspections shall be documented for inclusion in the monthly monitoring reports. The following items shall be documented for each area to be irrigated on that day:

1. Soil saturation, ponding, and evidence of soil clogging;
2. Potential runoff to off-site areas and/or surface water;
3. Accumulation of organic solids at soil surface;
4. Odors that have the potential to be objectionable at or beyond the property boundary;
and
5. Vector Insects.

SOLIDS/POMACE DISPOSAL MONITORING

The Discharger shall record and report **monthly** the quantity, disposal location, hauler, and method of disposal of solids and prune/walnut waste generated during the process season.

The storage of any solids and prune/walnut waste shall be described. The description shall include the material stored, approximate amount, location of storage, and measures implemented to prevent leachate generation or control and dispose of any leachate that is generated.

DOMESTIC LEACHFIELD AND SEPTIC TANK MONITORING

Septic tank maintenance inspections (including tank sludge level measurement) shall be performed at least **once every 5 years**. The leachfield(s) that is used to dispose of domestic wastewater shall be monitored and reported **monthly** when the Facility is in operation for signs of surfacing effluent and excessive weed growth.

REPORTING

The Discharger shall report monitoring data and information as required in this MRP as required in the Standard Provisions.

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g. wastewater, water supply), sample location, and the reported analytical result for each sample are readily discernable. 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 analyses performed in accordance with specified test procedures, taken more frequently than required at the locations specified in this MRP, shall be reported to the Central Valley Water Board and used in determining compliance.

A. Monthly Monitoring Reports

Monthly reports shall be submitted to the Central Valley Water Board on the **1st day of the second month following sampling** (i.e., the September report is due by 1 November). Wastewater monitoring is required in months when the facility is actively processing prunes, walnuts, or performing cleaning activities prior to or after processing.

B. Annual Report

An annual report shall be submitted to the Central Valley Water Board by **1 February of the year following the processing season**. The Annual Report shall include the following:

1. The names and telephone numbers of persons to contact regarding emergency and routine situations;

2. A statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibrations (Standard Provision C.4.);
3. A summary and discussion of the compliance record for the reporting period. If violations have occurred, the report shall also discuss corrective actions taken and planned to bring the discharge into full compliance with this Order;
4. A discussion on the type of crops grown and their nutrient requirements; and
5. A discussion on loading rates.

A transmittal letter shall accompany each self-monitoring report. The letter shall discuss any violations during the reporting period and all actions taken or planned for correcting violations, such as operation of facility modifications. If the Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain the certification statement by the Discharger or the Discharger's authorized agent, as described in the Standard Provisions General Reporting Requirements Section B. 3.

The Discharger shall implement the above monitoring program on the first day of the month following adoption of this Order.

Original signed by

Ordered by: _____
PAMELA C. CREEDON, Executive Officer

8 June 2012
(date)

INFORMATION SHEET

WASTE DISCHARGE REQUIREMENTS ORDER R5-2012-0041
SUNSEET DRYERS, INC.
PRUNE DEHYDRATOR
GLENN COUNTY

Background

Sunsweet Dryers, Inc. (“Discharger”), owns and operates as a prune dehydrating plant in Glenn County California, Section 11, T22N, R2W, MDB&M, with surface water drainage to Stony Creek, under existing Waste Discharge Requirements (WDRs) Order No. 91-165. The Discharger currently is permitted to discharge up to 90,000 gallons per day of prune wash water, for a total annual discharge of 2.9 million gallons.

The wastewater is used to supplement irrigation water for the Discharger’s pasture land, which they lease out to a neighboring cattle ranch. Solids are first separated out of the prune waste water using a water separator screen prior to its discharge to a 166,000-gallon aerated, concrete sump. Solids are transported off site for disposal at a permitted green waste recycling facility. Up to 90,000 gals/day of wastewater is then pumped via pipeline to a number of check valves to mix with 164,000 gals/day of irrigation water before being gravity feed to a 26-acre, pasture land, flood irrigation field. The processing season occurs for a four to eight week period from early August to mid-September most years.

For this permit update, the Discharger plans to add a walnut hulling and wash process to the facility operations. The walnut hulling process will add an additional 6,000 gpd to the facility’s discharge. This additional water is used in the dipping/floating of the walnuts through a rinse tank to remove dirt from the outer shell. However, walnut hulling would typically be carried out at the facility in late September and November after the prune processing season is ended. This additional process would add approximately 300,000 gallons/year to the 2.9 million gallon yearly discharge the facility is currently permitted for.

Current and future wastewater flows are presented in the table below:

	<u>Total Wastewater Generated per Year (gallons)¹</u>
Facility Capacity (as-built)	2,914,525
<u>Future Capacity</u>	3,200,000

¹Includes both prune and walnut process wastewater

Loading Rates

The Discharger sampled the process wastewater in June 2011. Wastewater is collected and combined within concrete storage basin located at the Facility prior to land application; thus although there are variations in the volume and quantity of the wastewater generated on a daily basis, the variations are normalized in the storage basin. Therefore, a composite sample is considered representative of the wastewater discharged to the land application area. The constituents of concern in the sample were biochemical oxygen demand (BOD) and nitrogen.

The Report of Waste Discharge (RWD) provided an analysis of loading rates for BOD and nitrogen. The analysis was performed in accordance with the *Manual of Good Practice for Land Application of Food Processing/Rinse Water* (the “Food Processing Manual”), published by the

SUNSWEET DRYERS, INC.
PRUNE DEHYDRATOR
GLENN COUNTY

California League of Food Processors, which measures the acceptability of wastewater application according to risk categories. A Risk Category 1 is the lowest category and means that loading rates are substantially below agronomic rates and that the risk to groundwater is indistinguishable from good farming practices. It should be noted that although the Food Processing Manual has not been subject to scientific peer review, the Central Valley Water Board was consulted during its preparation. Compliance with the guidelines in the Food Processing Manual demonstrates that the Discharger is implementing treatment and control measures consistent with those promoted by the industry to limit the potential for groundwater degradation.

BOD loading would not exceed 35 pounds per acre per day at future capacity based on waste water sampling to date. For a Risk Category 1, the loading rate for BOD must not exceed 50 pounds per acre per day. In addition, BOD loading rates should not exceed 100 lbs per acre per day in order to avoid nuisance conditions (USEPA Publication No. 625/3-77-007C, *Pollution Abatement in the Fruit and Vegetable Industry*). The BOD loading rates proposed in the RWD are below the nuisance loading rate and threshold for a Risk Category 1.

For a Risk Category 1, the loading rate of nitrogen must be less than half of the agronomic rate of the crop on an annual basis; the typical nitrogen requirement for pasture land is 200 lbs per acre per year. At current Facility capacity, the RWD estimated the wastewater nitrogen loading at 6 pounds per acre per year.

According to the Food Processing Manual, the loading rates calculated in the RWD for BOD and nitrogen are significantly below the threshold for a Risk Category 1; meaning that the risk to groundwater from the discharge is indistinguishable from good farming practices and the discharge will not result in any measureable groundwater degradation.

Groundwater Conditions

Local groundwater quality was obtained from the source well at the Facility, agricultural wells at the land application area and three onsite groundwater monitoring wells; TDS concentrations ranged from 220 mg/L to 480 mg/L and electrical conductivity ranged from 428 (source well) to 873 umhos/cm (Ag well).

Antidegradation

The antidegradation directives of State Water Board Resolution 68-16 (*The Statement of Policy with Respect to Maintaining High Quality Waters in California*) (hereafter Resolution 68-16) require that waters of the State that are better in quality than established water quality objectives be maintained "consistent with maximum benefit to the people of the State." Waters can be of high quality for some constituents or beneficial uses and not others. Policy and procedures for complying with this directive are set forth in the Basin Plan.

The discharge is consistent with Resolution 68-16 because:

SUNSWEET DRYERS, INC.
PRUNE DEHYDRATOR
GLENN COUNTY

- a. The discharge is consistent with the maximum benefit to the people of the State. The Discharger provides jobs in a small, economically-disadvantaged community. In addition, the use of wastewater for irrigation of crops results in the Discharger using less supplemental irrigation well water which is a benefit to the people of the State;
- b. The discharge will not unreasonably affect present and anticipated beneficial uses because the discharge will not result in any measurable groundwater degradation. Wastewater is land applied below agronomic loading rates and supplemented with fresh irrigation water;
- c. The discharge will not result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives. Groundwater under the land application area is not and will not be impacted by the discharge and does not exceed water quality objectives;
- d. The Discharger implements BPTC by removing solids from the wastewater, storage of wastewater in a concrete lined tank, application of wastewater below agronomic loading rates, and daily inspection of the land application area during the discharge season.

Title 27

The California Code of Regulations, title 27 ("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 wastewater. The exemption, found at Title 27, section 20090(b), is described below:

(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 regional water quality control board has issued WDRs, 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 ... as a hazardous waste.

The discharge authorized by this Order is exempt from Title 27 because:

- The Central Valley Water Board is issuing waste discharge requirements that will be protective of groundwater. The antidegradation analysis provided in the RWD demonstrated that the discharge will not result in any measureable groundwater degradation;
- The discharge complies with the Basin Plan; groundwater quality below the land application site does not exceed water quality objectives. The Discharger has demonstrated that the application of wastewater below agronomic loading rates to 26 acres of grassland for a short period of time (approximately 60 days annually) will not result in measureable groundwater degradation;

SUNSWEET DRYERS, INC.
PRUNE DEHYDRATOR
GLENN COUNTY

- The discharge is not considered a hazardous waste and does not need to be managed according to Title 22.

CEQA

Glenn County has certified a final Negative Declaration in accordance with the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) and the State CEQA Guidelines. The project as approved will not have a significant effect on water quality.

Order Terms and Conditions

The existing Order includes an annual wastewater flow limit of 2,900,000 gallons per year for the Facility as-built. The Proposed Order includes an annual wastewater flow limit of 3,200,000 gallons per year when the walnut hulling processes are operational, with a maximum discharge of 90,000 gallons/day of wastewater (combined prune and walnut processing).

The proposed Order limits BOD loading at the land application area to 50 lbs/acre/day, both long-term and over the course of any discharge cycle.

Monitoring Requirements

Water Code section 13267 authorizes the Central Valley Water Board to require monitoring and technical reports as necessary to investigate the impact of a waste discharge on waters of the State. The monitoring requirements are being imposed to ensure that the Discharger complied with the permit conditions. Water Code section 13268 authorizes the assessment of administrative civil liability for failing to submit monitoring reports required pursuant to Water Code section 13267

The proposed Order includes wastewater monitoring requirements, supply water monitoring, irrigation supply monitoring, land application area monitoring, and solids monitoring.

RSF