INFORMATION SHEET

WASTE DISCHARGE REQUIREMENTS ORDER R5-2012-XXXX
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:

	Total Wastewater Generated per Year (gallons)[1]
Facility Capacity (as-built)	2,914,525
Future Capacity	3,200,000

[1]Includes 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

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:

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;
- 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 complised 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.

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