

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

WASTE DISCHARGE REQUIREMENTS ORDER R5-2017-0126
FOR
SUN PACIFIC SHIPPERS, LP
AND
GENERAL PARTNERS OF THE
SEVENTH STANDARD RANCH COMPANY
SUN PACIFIC PACKINGHOUSE
KERN COUNTY

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

1. Sun Pacific Shippers, LP (Sun Pacific) owns and operates a fruit packinghouse and cold storage facility (Facility) that generates wastewater and discharges to land about six miles north of the City of Bakersfield as shown in Attachment A, which is attached hereto and made part of this Order by reference. Califia Farms, LLC (Califia Farms) began operating a nearby facility in 2011. The discharge from the Califia Farms facility was initially commingled with wastewater from the Sun Pacific Facility, and both waste streams were previously regulated under Waste Discharge Requirements (WDRs) Order 96-169. However, Califia Farms' discharge is no longer commingled with Sun Pacific's discharge, and Califia Farms' discharge is now regulated separately under WDRs Order R5-2017-0019.
2. WDRs Order 96-169, adopted by the Central Valley Water Board on 21 June 1996, prescribes requirements for the discharge. Order 96-169 allows a daily process wastewater discharge flow of 36,000 gallons per day (gpd) and a daily cooling/coil defrost wastewater discharge flow of 130,000 gpd. The Order is being updated to ensure the discharge is consistent with water quality plans and policies. Order 96-169 will be rescinded and replaced with this Order.
3. Sun Pacific owns and operates the Facility, and Seventh Standard Ranch Company owns and operates the land application areas to which the blended wastewater is discharged (Use Area). Both Sun Pacific and Seventh Standard Ranch Company, a California General Partnership, are responsible for compliance with these Waste Discharge Requirements (WDRs) and are hereafter jointly referred to as Discharger.
4. The Facility is at 33374 Lerdo Highway in Bakersfield (Section 11, T28S, R26E, MDB&M). The Facility and Use Area occupy Assessor's Parcel Numbers 091-310-03-00-3, 091-310-02-00-0, 091-310-01-00-7, 091-010-17-00-7, 091-010-18-00-0, 091-010-16-00-4, 091-010-15-00-1, 091-010-14-00-8, 091-030-01-00-6, 091-030-02-00-9, 091-030-03-00-2, 091-030-06-00-1, 091-030-04-00-5 and 091-030-05-00-8 as shown on [Attachment B](#), which is attached hereto and made part of this Order by reference.

5. The Seventh Standard Ranch Company is a California general partnership. The general partners of Seventh Standard Ranch Company, as of the date the Board issues these WDRs, are, in decreasing order of percentage owned: Paramount Ranch Company; Mountain View Ranch; South Star Ranch Co; Millwood Ranch Company, Limited; Mitchell Ranch Company, Limited; McFarland # 2 Ranch Company; Seven-Eleven Ranch Company; ERA Limited; MRA Company, Limited; Cloverleaf Ranch Company; Sol Oro Ranch Company, Limited; Luther Ranch Company; Sierra View Ranch Company; Wallich's Ranch Company; Railroad Ranch Company, Limited; Headquarters Ranch Company; TR A Company, Limited; Redwood Ranch Company; Hi-Test Ranch Company, Limited; II-B Ranch Company, Limited; Air chief Ranch Company; Williams Ranch Company; Cartwright Ranch Company; Black Ranch Company, Limited; Barney Ranch Company; Frazier No 2 Limited; Sam's Ranch Company; Butte Ranch Company; Thompson Ranch Company; Mehrten Creek Ranch; Donna K Lyon; Benneyan Bros; and Rainbow Ranch Company, Limited.

Existing Facility and Discharge

6. The Facility includes washing, sorting, grading, and packing of citrus fruit. Wastewater generated by fruit processing (washing fruit and equipment) is collected and diverted to the unlined storage pond on the north side of the Facility.
7. Fruit packing activities at the Facility occur from around November through June and generate about 20,000 gpd of wastewater. The Cold Storage Facilities are used year round and generate about 56,500 gallons of wastewater per day.
8. Culled fruit from the citrus packing line is collected and hauled offsite for cattle feed.
9. Chemicals in use at the Facility are approved for use at food processing facilities, and include; Decco Agclor, Decco Deccosol, Decco Deccozil, Isopropyl Alcohol, Heavy Duty Degreaser Foamer, Rely-on, Pro Spray Clean, Kleaner Q5, Seaco 3240, and Sodium Bicarbonate.
10. The unlined storage pond was constructed entirely below grade and has a capacity of 3.72 million gallons. The pond is oriented east to west along the northern boundary of the property and adjacent to the Use Area.
11. Citrus processing wastewater is commingled with cooling/defrost wastewater in the storage pond and pumped to irrigation ponds where it is mixed 50/50 with supplemental irrigation water. The source of supplemental irrigation can be either surface water (Kern Irrigation District) or well water depending on surface water allotment.

12. The 1,158-acre Use Area is planted with grapes. The Use Area is bounded by Merced Avenue to the north, Quality Road to the east, Zerker Road to the west, and Lerdo Highway to the south.
13. The Facility and Use Area span about 1,174 acres. The parcels are zoned M-2 (Medium Industrial) and A (Exclusive Agriculture). The designated uses are consistent with Sun Pacific's operations.
14. There is limited analytical data for most wastewater constituents as WDRs Order 96-169 required minimal effluent sampling. Tables 1, 2, and 3 below present a summary of analytical results for effluent discharged from 2011 to 2016 and a single sampling event on 16 May 2017.

Table 1. Sun Pacific Shippers Citrus Effluent Analytical Results (2011-2016)

<u>Parameter</u>	<u>Units</u>	<u>Average</u>	<u>Range</u>
EC	µmhos/cm	1179	950-1250
pH	s.u.	9	8-9.5
TKN	mg/L	8	2.3-42
Cl	mg/L	184	92-270

Table 2. Sun Pacific Shippers Defrost Effluent Analytical Results (2011-2016)

<u>Parameter</u>	<u>Units</u>	<u>Average</u>	<u>Range</u>
EC	µmhos/cm	960	100-1150
pH	s.u.	8.5	8-9.3

Table 3. Sun Pacific Shippers Combined Effluent Analytical Results (5/16/2017)

<u>Parameter</u>	<u>Units</u>	<u>Result</u>
EC	umhos/cm	2130
pH	s.u.	8.28
BOD	mg/L	58
Chloride	mg/L	260
Sulfate	mg/L	130
TDS	mg/L	1400
TSS	mg/L	120
Total Nitrogen	mg/L	11
TKN	mg/L	11
Ammonia as NH ₃	mg/L	0.13
Nitrate as N	mg/L	ND
Total Magnesium	mg/L	1.2
Total Calcium	mg/L	43
Total Potassium	mg/L	11
Total Sodium	mg/L	480

<u>Parameter</u>	<u>Units</u>	<u>Result</u>
Bicarbonate	mg/L	740
Carbonate	mg/L	ND
Alkalinity as CaCO ₃	mg/L	610
Hardness as CaCO ₃	mg/L	110

15. Domestic wastewater from the Facility is discharged separately to a leachfield system regulated by Kern County Environmental Health.
16. The Facility is classified by SIC code 0723 (Crop Preparation Services for Market) and is therefore exempt from the requirements of Order 2014-0057-DWQ/NPDES General Permit CAS000001, which regulates discharges of storm water associated with certain industrial activities.

Other Considerations for Food Processing Waste

17. Excessive application of food processing wastewater to land can create objectionable odors, soil conditions that are harmful to crops, and potentially unreasonable degradation of the underlying groundwater. It is reasonable to expect some attenuation of various waste constituents that percolate below the root zone within the vadose (unsaturated) zone. Specifically, excess nitrogen can be mineralized and denitrified by soil microorganisms, organic constituents (measured as both BOD and volatile dissolved solids) can be oxidized, and the cation exchange capacity of the soil may immobilize some salinity constituents.
18. Food processing wastewater may contain elevated concentrations of TDS resulting from the products or materials used for production. Typically, a percentage of the TDS is organic, which will generally decompose into its component elements of carbon, hydrogen and oxygen that can be utilized by plants and microorganisms in the soil. In contrast, the FDS is primarily that portion of the TDS that consists of inorganic constituents, which can accumulate in the soil. Excessive salts may leach to groundwater where they will degrade and could pollute groundwater quality. Growing and harvesting crops provides a means to remove some of these constituents, particularly calcium, magnesium, potassium, phosphorus, nitrate, and ammonia.
19. Typically, irrigation with high strength wastewater can result in high BOD loading on the day of application. It is common practice to follow a BOD loading event with a number of days without application so that soil biochemical processes will consume the applied BOD. If the rate of oxygen transfer into the soil is not adequate, anaerobic or reducing conditions may result and lead to nuisance odor conditions. When insufficient oxygen is present below the ground surface, anaerobic decay of organic matter can cause dissolution and leaching of some metals (primarily iron, manganese, and arsenic) and increases in groundwater alkalinity that can degrade groundwater quality. Excessive BOD loading over extended periods may impact beneficial uses.

20. The California League of Food Processor's (CLFP) Manual of Good Practice for Land Application of Food Processing/Rinse Water proposes risk categories associated with particular BOD loading rate ranges as follows:
- a. Risk Category 1: (less than 50 lbs/acre/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/acre/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/acre/day; depth to groundwater greater than 2 feet) Requires detailed planning and good operation with good distribution very important to prevent unreasonable degradation, as well as use of oxygen transfer design equations that consider site specific application cycles and soil properties and special monitoring.

The Manual of Good Practice recommends allowing a 50 percent increase in the BOD loading rates in cases where sprinkler irrigation is used, and recommends that additional safety factors be used for sites with heavy and/or compacted soils. Although it has not been subject to a scientific peer review process, the Manual of Good Practice provides science-based guidance for BOD loading rates that, if fully implemented, may be considered management practices to help prevent groundwater degradation due to reducing conditions.

21. The cycle average BOD loading rates for the proposed discharge of citrus processing wastewater to the Use Area indicate very low BOD cycle loading rates of less than 1 lbs/ac/day. The discharge of wastewater at loading rates of less than 100 lbs/ac/day is unlikely to cause or contribute to groundwater degradation underlying the Use Area. (BOD loading calculation does not take into consideration supplemental irrigation water and assumes a discharge of 56.2 million gallons per year, BOD = 58 mg/L, and Use Area = 1,158 acres).

Site-Specific Conditions

22. The site elevation is about 440 feet above mean seal level and the natural land surface slopes gently to the southwest. The nearest surface water is the man-made Lerdo Canal, which is about 1,000 feet southwest of the Facility. The nearest natural water body is Poso Creek, which is located about 4 miles north/northwest of the Facility.
23. The area where the Facility is located is characterized by hot dry summers and cooler, humid winters. The rainy season generally extends from November through March.

Average annual precipitation is about 6.5 inches and annual evapotranspiration data is 54.6 inches with monthly averages ranging from 1.3 inches in January and December to 8.1 inches in July (California Irrigation Management Information System (CIMIS) Shafter Station # 5). The 100-year, 24-hour maximum precipitation is about 2.9 inches, based on maps obtained from the Kern County Resource Management Agency, Engineering, Survey and Permit Services, Floodplain Management Section. The 100-year return maximum precipitation is 12.5 inches, based on Bulletin 195, Vol. 1.

24. United States Department of Agriculture Natural Resources Conservation Service (NRCS) soil survey maps characterize approximately the top six feet of soil. Soils in the Use Area are Delano sandy loam (20.7%), Lewkalb sandy loam (21.8%), Wasco sandy loam (2.4%), and Zerker sandy clay loam (55%). Saturated hydraulic conductivity for the Delano and Zerker soils ranges between 0.20 and 0.57 inches per hour, Lewkalb ranges from 0.06 and 0.020 inches per hour, and Wasco ranges from 1.98 to 5.95 inches per hour. The soils series' are described as non-saline to slightly saline, well drained alluvium from granitic rock sources. The land capability classifications of the soils for irrigation are II-s and I. The soils pose no other significant use restrictions.
25. The Facility sits on the edge of the Federal Emergency Management (FEMA) flood maps, and there is no coverage directly north of the Facility. According to FEMA map 06029C0725E, the area directly south of the Facility is outside of the 100-year return frequency flood zone.

Groundwater Considerations

26. Regional groundwater underlying the area is first encountered at about 430 feet below ground surface (bgs) and flows northwestward according to the Groundwater Information Center Interactive Map Application published online by DWR in Spring 2016.
27. Source water for the Facility obtained from an onsite well was monitored monthly for electrical conductivity. During the period 2011 through 2016 source water EC averaged 794 $\mu\text{mhos/cm}$ and ranged from 750 to 850 $\mu\text{mhos/cm}$. Table 3 below shows sample results for the source water from a single sampling event on 28 December 2016.

Table 4. Sun Pacific Shippers Source Water

<u>Parameter</u>	<u>Unit</u>	<u>Result</u>
Total Recoverable Calcium	mg/l	22
Total Recoverable Magnesium	mg/l	0.14
Total Recoverable Sodium	mg/l	110
Total Recoverable Potassium	mg/l	<1.0
Bicarbonate Alkalinity as CaCO ₃	mg/l	47
Carbonate Alkalinity as CaCO ₃	mg/l	<4.1
Alkalinity as CaCO ₃	mg/l	47
Chloride	mg/l	99
Nitrate as N	mg/l	<0.10
Sulfate	mg/l	71
Anion/cation Balance	%	6.3
Hardness as CaCO ₃	mg/l	55
Electrical Conductivity	µmhos/cm	569
Total Dissolved Solids	mg/l	350
Total Nitrogen	mg/l	<0.30
Total Kjeldahl Nitrogen	mg/l	<0.20
Ammonia as N	mg/l	<0.10
Nitrite as N	mg/l	<0.050

28. Regional groundwater quality data can be found on the Water Quality Portal website, a cooperative service provided by the United State Geological Survey (USGS), the Environmental Protection Agency, and the National Water Quality Monitoring Council. A review of the USGS files indicates three wells are within a two mile radius of the WWTF. Table 4 below summarizes this data.

Table 5. Regional Groundwater Results

<u>Parameter</u>	<u>Unit</u>	<u>028S026E</u> <u>11C001M</u>	<u>028S026E</u> <u>10P001M</u>	<u>028S026E</u> <u>11J001M</u>
Depth	feet	1071	500	950
Sample Date		9/1/1955	8/31/1955	9/1/1955
Hardness, non-carbonate	mg/l CaCO ₃	270	150	440
Nitrate	mg/l as N	9.04	9.71	17.8
Magnesium	mg/l	5.20	0.70	2.60
Potassium	mg/l	3.40	2.40	3.20
Sodium	None	1.5	5.4	2.4
adsorption ratio				
Sodium, percent total cations	%	30	66	34
Sodium	mg/l	63.0	170	120

<u>Parameter</u>	<u>Unit</u>	<u>028S026E</u> <u>11C001M</u>	<u>028S026E</u> <u>10P001M</u>	<u>028S026E</u> <u>11J001M</u>
Total dissolved solids	mg/l	567	714	903
Nitrate	mg/l	40	43	79
Hydrogen ion	mg/l	0.00002	0.00002	0.00003
Boron	ug/l	40	70	90
Alkalinity	mg/l CaCO ₃	55	42	42
Bicarbonate	mg/l	67	51	51
Carbonate (CO ₃)	mg/l	0.0	0.0	0.0
Chloride	mg/l	180	190	340
Fluoride	mg/l	0.00	0.00	0.00
Silica	mg/l	26.0	16.0	18.0
Sulfate	mg/l	98.0	190	130
Carbon dioxide	mg/l	2.1	1.3	2.0
pH	std units	7.7	7.8	7.6
Specific conductance @25C	uS/cm	985	1220	1620
Total hardness -- SDWA NPDWR	mg/l CaCO ₃	320	190	480
Calcium	mg/l	120	75.0	190

Basin Plan, Beneficial Uses, and Water Quality Objectives

29. The *Water Quality Control Plan for the Tulare Lake Basin, Second Edition, revised July 2016* (Basin Plan) designates beneficial uses, establishes narrative and numerical water quality objectives, contains implementation plans and policies for protecting all waters of the Basin, and incorporates, by reference, plans and policies of the State Water Board. In accordance with Water Code section 13263(a), these requirements implement the Basin Plan.
30. The Facility and discharge are in Detailed Analysis Unit (DAU) No. 256, within the Kern Basin hydrologic unit. The Basin Plan identifies the beneficial uses of groundwater in the DAU as municipal and domestic supply, agricultural supply, and industrial service and industrial process supply.
31. The Facility and discharge are in the North Kern Hydrologic Area (No. 558.80) of the South Valley Floor Hydrologic Unit, as depicted on interagency hydrologic maps prepared by the State Water Resources Control Board and the Department of Water Resources, revised in August 1986.
32. The Basin Plan establishes narrative water quality objectives for Chemical Constituents, Taste and Odors, and Toxicity. The Toxicity objective, in summary, requires that groundwater be maintained free of toxic substances in concentrations that

produce detrimental physiological responses in human, plant, animal, or aquatic life associated with designated beneficial uses. Quantifying a narrative water quality objective requires a site-specific evaluation of those constituents that have the potential to impact water quality and beneficial uses.

33. The Basin Plan Chemical Constituents water quality objective requires, at a minimum, waters designated as domestic or municipal supply to meet the MCLs specified in Title 22 of the California Code of Regulations. 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.
34. 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 that degradation is unavoidable until there is a long-term solution to the salt imbalance. Until then, the Basin Plan establishes several salt management requirements, including:
 - a. The incremental increase in salts from use and treatment must be controlled to the extent possible. The maximum EC of the effluent discharged to land shall not exceed the EC of the source water plus 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 good quality groundwater shall not exceed an EC of 1,000 $\mu\text{mhos/cm}$, a chloride content of 175 mg/L, or boron content of 1.0 mg/L.

As indicated in Findings 17 and 18, groundwater in the Use Area has EC results ranging from below the MCL of 900 $\mu\text{mhos/cm}$ to over 1,600 $\mu\text{mhos/cm}$, and chloride results ranging from 99 mg/L to 340 mg/L. As such, effluent limitations for EC and chloride will be implemented to minimize degradation.

35. The Central Valley Water Board is developing amendments to the Basin Plan to incorporate new strategies for addressing ongoing salt and nitrate accumulation in the waters and soils of the Central Valley. Strategies currently under consideration may:
 - Alter the way the Board calculates available assimilative capacity for nitrate, which could result in new or modified requirements for nitrate management;
 - Require dischargers to implement actions identified under an interim salinity permitting approach; and/or

- Establish alternate compliance approaches that would allow dischargers to participate in efforts to provide drinking water to local communities in consideration for longer compliance time schedules.

Should the Board adopt amendments to the Basin Plan to effectuate such strategies, these waste discharge requirements may be amended or modified to incorporate any newly-applicable requirements.

36. 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.

Antidegradation Analysis

37. State Water Resources Control Board Resolution 68-16, the Policy with Respect to Maintaining High Quality Waters of the State (State Antidegradation Policy) prohibits the Board from authorizing the degradation of high-quality water unless it has been shown 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
38. Constituents of concern in the discharge (those with the greatest potential to affect beneficial uses of receiving water) include organics, nutrients, and salts.
- a. **Organics:** As described in Finding 16, application of organic materials (as measured by BOD) at excessive rates can cause anaerobic conditions that result in nuisance odor conditions, dissolution, and leaching of some metals (primarily iron, manganese, and arsenic) to groundwater. However, as discussed in Finding 20, the BOD loading rates of the existing and proposed discharge will be less than 1 lbs/acre/year and at such loading rates are will be unlikely to degrade the underlying groundwater quality.

- b. **Salinity:** The average effluent EC result (1,176 umhos/cm) is less than the basin plan limit of source water EC plus 500 µmhos/cm. Provision G.13 requires the discharger to develop a Salinity Control Plan that sets salinity source reduction goals and a time schedule for implementation. The plan required by Provision G.13 must address chloride control. Further, the effluent is mixed 50/50 with either well water or surface water from Cawelo Irrigation District for irrigation (depending on surface water allocation) of grapes. Surface water EC averages about 600 umhos/cm.
- c. **Nitrogen:** For nutrients such as nitrate, the potential for groundwater degradation depends on wastewater quality; crop uptake, and the ability of the vadose zone below the Use Area to support nitrification and denitrification to convert the nitrogen to nitrogen gas before it reaches the water table. Order 96-169 required TKN monitoring in citrus processing effluent and averaged 7.7 mg/L which equates to about 3.11 lbs/acre/year being applied to the Use Area, which is less than the crop uptake for grapes of about 125 lbs/acre/year. TKN can readily mineralize and convert to nitrate (with some loss as ammonia volatilization) in the Use Area. Table 5 above shows that regional groundwater results for nitrate as N ranges from 9-17.8 mg/L below the Use Area. The poor quality background water quality is likely due to the predominantly agricultural land use in the area.

This Order contains Use Area Specifications D.4 and D.5, which require the Discharger to minimize waste constituent loading, and ensure the annual nutritive loading and hydraulic loading rates, including the nutritive value of organic and chemical fertilizers, manure from non-commercial livestock, and of the wastewater, not to exceed the annual crop demand. With nitrogen uptake by crops, nitrification and denitrification in soils, and depth to groundwater beneath the site, the discharge, as allowed by this Order, is not expected to contribute to groundwater degradation that would violate water quality objectives.

39. The Discharger will provide treatment and control of the discharge that incorporates:
- a. Minimal fungicide concentrations in wastewater because the fruit packing process is intended to maximize the efficiency with which fungicide is applied to the fruit to reduce costs;
 - b. Use of chemical products according to intended use described on labels;
 - c. Implementation of the Salinity Control Plan required by [Provision G.13](#) of this Order;
 - d. Settling of suspended solids in the wastewater pond;
 - e. Reuse of wastewater for crop irrigation; and
 - f. Source water and discharge monitoring required by Monitoring and Reporting Program [R5-2017-0126](#), a part of this Order.

40. This Order establishes terms and conditions to ensure that the discharge does not unreasonably affect present and anticipated future beneficial uses of groundwater or result in groundwater quality worse than the water quality objectives set forth in the Basin Plan.
41. The provisions of the Order require the Discharger to implement the treatment or control measures listed in Finding 39. The Board finds that these treatment and control practices are reflective of BPTC for the wastes in the discharge.
42. Degradation of groundwater by some of the typical waste constituents associated with citrus packing, after effective source control, treatment, and control measures are implemented, is consistent with the maximum benefit to the people of the state. The Discharger's operation provides 25 full time jobs and 130 jobs during the processing season (November through June). The economic prosperity of valley communities and associated industry is of maximum benefit to the people of the State, and provides sufficient justification for allowing limited groundwater degradation that may occur pursuant to this Order.
43. These WDRs are consistent with the *State Antidegradation Policy* since this Order requires Sun Pacific to implement BPTC to minimize degradation, the limited degradation allowed by this Order will not unreasonably affect present and anticipated future beneficial uses of groundwater, or result in water quality less than water quality objectives, and the limited degradation is of maximum benefit to people of the State.

California Environmental Quality Act

44. The Facility and its associated structures have already been installed and are currently in use. This Order places additional regulatory requirements on the continued use of the Facility. These requirements are being prescribed to ensure the continued protection of the environment. This action is therefore exempt from the provisions of the California Environmental Quality Act (CEQA), in accordance with California Code of Regulations, title 14, section 15301, which exempts the "operation, repair, maintenance, [and] permitting ... of existing public or private structures, facilities, mechanical equipment, or topographical features" from environmental review. This action may also be considered exempt because it is an action by a regulatory agency for the protection of natural resources (Cal. Code Regs., tit. 14, § 15307.) and an action by a regulatory agency for the protection of the environment (Cal. Code Regs., tit. 14, § 15308.).

Title 27

45. California Code of Regulations, title 27 (hereafter Title 27) contains regulatory requirements for the treatment, storage, processing, and disposal of solid waste, which includes designated waste, as defined by Water Code section 13173. However, Title 27 exempts certain activities from its provisions. Discharges regulated by this Order are

exempt from Title 27 pursuant to a provision that exempts wastewater under specific conditions. This exemption, found at Title 27, section 20090, 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, reclamation requirements, or waived such issuance;
- (2) The discharge is in compliance with applicable water quality control plan; and
- (3) The wastewater does not need to be managed according to Chapter 11, Division 4.5, Title 22 of this code as a hazardous waste.

46. The discharge authorized herein is exempt from the requirements of Title 27 in accordance with Title 27, section 20090(b) because:

- a. The Central Valley Water Board is issuing WDRs.
- b. The discharge is in compliance with the Basin Plan, and;
- c. The treated effluent discharged to the Use Area does not need to be managed as hazardous waste.

Other Regulatory Considerations

47. In compliance with Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This order promotes that policy by requiring groundwater that receives the discharge to meet maximum contaminant levels 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 2C 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 C complexity: “Any discharger for which waste discharge requirements have been prescribed pursuant to Section 13263 of the Water Code not include in Category A or Category B as described above. Included are dischargers having no waste treatment systems or that must comply with best management practices, discharges having passive treatment and disposal systems, or dischargers having waste storage systems with land disposal.”

General Findings

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

50. Water Code section 13267(b) states that:

In conducting an investigation specified in subdivision (a), 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.

51. The technical reports required by this Order and monitoring reports required by the attached MRP R5-2017-0126 are necessary to ensure compliance with these waste discharge requirements. The Discharger operates the Facility that discharges the waste subject to this Order.

Public Notice

52. 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 conditions of discharge in this Order.

53. 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.

54. All comments pertaining to the discharge were heard and considered in a public meeting.

IT IS HEREBY ORDERED that Order 96-169 is rescinded, and Sun Pacific Shippers, LLC, and Seventh Standard Ranch Company, its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. 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 [Standard Provisions E.2](#) in *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*, dated 1 March 1991, 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. Discharge of wastewater in a manner or location other than that described herein is prohibited.
5. Storage of solids on areas without means to prevent leachate generation and infiltration into the ground is prohibited.

B. Effluent Limitations

1. The monthly average discharge flow rates shall not exceed the following:
 - a. 36,000 gpd of process wastewater during the season (EFF-001).
 - b. 130,000 gpd of cooling/coil defrost wastewater year round (EFF-002).
2. The maximum EC of wastewater discharged to the storage pond, determined at DSC-001, shall not exceed the source water EC plus 500 $\mu\text{mhos/cm}$ (see Provision G.13 for compliance).
3. The maximum concentration of chloride in wastewater discharged to the storage pond shall not exceed 250 mg/L.

C. Discharge Specifications

1. The discharge shall not have a pH less than 6.5 or greater than 9.5.
2. No waste constituent shall be released, discharged, or placed where it will be released or discharged, in a concentration or in a mass that causes violation of Groundwater Limitations of this Order.
3. Wastewater treatment, storage, and disposal shall not cause pollution or a nuisance as defined by Water Code section 13050.
4. The discharge shall remain within the permitted waste treatment/containment structures and Use Areas at all times.

5. The Discharger shall operate all systems and equipment to optimize the quality of the discharge.
6. All conveyance, treatment, storage, and disposal units shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
7. Objectionable odors shall not be perceivable beyond the limits of the storage or irrigation ponds or the Use Area at an intensity that creates or threatens to create nuisance conditions.
8. As a means of discerning compliance with [Discharge Specification C.7](#), the dissolved oxygen (DO) content in the upper one foot of any wastewater pond shall not be less than 1.0 mg/L for three consecutive sampling events. If the DO in any single pond is below 1.0 mg/L for three consecutive sampling events, the discharger shall report the findings to the Central Valley Water Board in writing within 10 days and shall include a specific plan to resolve the low DO results within 30 days.
9. Wastewater storage ponds shall have sufficient capacity to accommodate allowable wastewater flow and design seasonal precipitation and ancillary inflow and infiltration during the winter. 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.
10. On or about **1 October** of each year, the available storage pond capacity shall at least equal the volume necessary to comply with [Discharge Specification C.9](#).
11. All ponds shall be managed to prevent breeding of mosquitoes. In particular,
 - a. An erosion control plan should assure that coves and irregularities are not created around the perimeter of the water surface.
 - b. Weeds shall be minimized through control of water depth, harvesting, and herbicides.
 - c. Dead algae, vegetation and other 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.

12. The Discharger shall monitor solids accumulation in the wastewater treatment/storage ponds, and shall periodically remove solids as necessary to maintain adequate treatment and storage capacity.

D. Use Area Specifications

1. For the purpose of this Order, "Use Area" means an area with defined boundaries where wastewater is used or discharged.
2. The perimeter of the Use Area shall be graded to prevent ponding along public roads or other public areas and prevent runoff or overspray onto adjacent properties not owned or controlled by the Discharger.
3. Discharger shall maintain a 10-foot setback between the Use Area and the leach field for the onsite domestic wastewater system serving the Facility.
4. Hydraulic loading of wastewater and irrigation water shall be at reasonable agronomic rates designed to minimize the percolation of wastewater and irrigation water below the root zone (i.e., deep percolation).
5. Application of waste constituents shall be at reasonable agronomic rates to preclude creation of a nuisance or degradation of groundwater, considering the crop, soil, climate, and irrigation management. The annual nutritive loading to the Use Area, including the nutritive value of organic and chemical fertilizers and of the wastewater, shall not exceed the annual crop demand.
6. The discharge to the Use Areas will not exceed a BOD cycle average loading rate of 100 lbs/acre/day at any time. Compliance with this limit shall be determined by using the average of the last two quarters effluent BOD results.
7. The resulting effect of the discharge on soil pH shall not exceed the buffering capacity of the soil profile.
8. The Discharger may not discharge process wastewater to the Use Areas within 24 hours of a storm event of measurable precipitation or when soils are saturated.
9. The Use Area shall be managed to prevent breeding of mosquitoes. More specifically:
 - a. All applied irrigation water must infiltrate completely within 48-hours;
 - b. Ditches not serving as wildlife habitat should be maintained free of emergent, marginal, and floating vegetation; and

- c. Low-pressure and unpressurized pipelines and ditches accessible to mosquitoes shall not be used to store recycled water.

E. Solids Specifications

1. Any handling and storage of residual solids on property of the Discharger 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 the groundwater limitations of this Order.
2. Collected screenings 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 adopted by a regional water quality control board will satisfy this specification.
3. 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.

F. Groundwater Limitations

1. Release of waste constituents from any treatment component or use as irrigation water shall not cause or contribute to groundwater:
 - a. Containing constituent concentrations in excess of the concentrations specified below or natural background quality, whichever is greater:
 - (i) Nitrate (as N) of 10 mg/L.
 - (ii) For constituents identified in Title 22, the MCLs quantified therein.
 - b. Containing taste or odor-producing constituents, toxic substances, or any other chemical constituents in concentrations that cause nuisance or adversely affect beneficial uses.

G. Provisions

1. The Discharger shall comply with the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*, dated 1 March 1991 (Standard Provisions), which are part of this Order.
2. The Discharger shall comply with MRP R5-2017-0126, which is part of this Order, and any revisions thereto as adopted by the Central Valley Water Board or approved by the Executive Officer.
3. 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.
4. 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 Central Valley Water Board office (currently, the Fresno office).
5. 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 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.
6. The Discharger shall keep at the Facility a copy of this Order, including its MRP, Information Sheet, attachments, and Standard Provisions, for reference by operating personnel. Key operating personnel shall be familiar with its contents.
7. 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 by letter 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 must 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 include 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 only 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. The Discharger shall maintain and operate surface impoundments sufficiently to protect the integrity of containment levees and prevent overtopping or overflows. Unless a California registered civil engineer certifies (based on design, construction, and conditions of operation and maintenance) that less freeboard is adequate, the operating freeboard shall never be less than two feet (measured vertically). As a means of management and to discern compliance with this Provision, the Discharger shall install and maintain a permanent marker with calibration that indicates the water level at the design capacity and enables determination of available operational freeboard.
11. The Discharger shall submit the technical reports and work plans required by this Order for Central Valley Water Board staff consideration and incorporate comments they may have in a timely manner, as appropriate. The Discharger shall proceed with all work required by the following provisions by the due dates specified.
12. All technical reports and work plans 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. As required by these laws, completed technical reports and work plans 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. All reports required herein are required pursuant to Water Code section 13267.

13. **By 10 December 2018**, Sun Pacific shall submit a Salinity Control Plan, with salinity source reduction goals and an implementation time schedule for Executive Officer approval. The control plan should 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 various elements in the salinity control plan. This plan must address chloride control. The Discharger shall implement the plan in accordance with the approved schedule.
14. **By 8 June 2018**, Sun Pacific shall submit a technical report, prepared by a qualified civil engineer licensed to practice in California, demonstrating that it complies with Discharge Specification C.6 and C.9. The technical report must include a description of specific design features and operation and maintenance practices that will prevent inundation or washout for all conveyance, treatment, storage, and disposal units due to floods with a 100-year return frequency.
15. **By 8 June 2018**, Sun Pacific shall submit a water balance, prepared by a qualified civil engineer licensed to practice in California. At a minimum, the water balance must account for all water inputs to and outputs from the Facility on a monthly basis, showing the wastewater storage requirement based on the maximum accumulation of wastewater in the ponds during a 100-year return period wet year.
16. If the Central Valley Water Board determines that waste constituents in the discharge have reasonable potential to cause or contribute to an exceedance of an objective for groundwater, this Order may be reopened for consideration of addition or revision of appropriate numerical effluent or groundwater limitations for potential constituents.
17. The Central Valley Water Board will review this Order periodically and will revise requirements when necessary.

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

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 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 filling 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 December 2017.

Original signed by

PAMELA C. CREEDON, Executive Officer

Order Attachments:

A Facility Map

B Site Location Map

C Process Flow Diagram

Monitoring and Reporting Program R5-2017-0126

Information Sheet

Standard Provisions (1 March 1991)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2017-0126
FOR
SUN PACIFIC SHIPPERS, LP
AND
GENERAL PARTNERS OF THE
SEVENTH STANDARD RANCH COMPANY
SUN PACIFIC SHIPPERS BAKERSFIELD PLANT
KERN 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 Central Valley Water Board staff, and a description of the revised stations shall be submitted for approval by the Executive Officer.

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. 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 the operator is trained in the proper use of the instrument and each instrument is serviced and/or calibrated at the recommended frequency by the manufacturer or in accordance with manufacturer instructions.

Analytical procedures shall comply with the methods and holding times specified in the following: *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 or the State Water Resources Control Board Division of Drinking Water. The Discharger may propose alternative methods for approval by the Executive Officer.

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 within this MRP is included on [page 10](#).

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

Monitoring Location Name	Monitoring Location Description
EFF-001 and EFF-002	Locations representative of flow into the storage pond. EFF-001 (process wastewater), EFF-002 (Cooling water discharge)
DSC-001	Location where representative sample of the commingled discharge can be collected prior to discharge for irrigation.
PND-001	Storage pond where effluent is commingled prior to discharge for irrigation.
SW-001	Existing source water wells and any other source water wells added to the source water well network.
UA-001	Use Area where the discharge from the Facility and any other supplemental water source are applied.

EFFLUENT MONITORING (EFF-001 and EFF-002)

Effluent sampled shall be representative of the discharge into the storage pond.

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Continuous	Effluent Flow	mgd	Meter

DISCHARGE MONITORING (DSC-001)

Discharge samples shall be representative of the commingled discharge and collected from a point in the wastewater disposal system before discharge for irrigation. Time of collection of the sample shall be recorded. Discharge monitoring shall include at least the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Monthly	pH	pH Units	Grab
Monthly	EC	µmhos/cm	Grab
Monthly	Chloride	Mg/L	Grab
Quarterly	BOD ₅	mg/L	Grab

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Quarterly	TSS	mg/L	Grab
Quarterly	TDS	mg/L	Grab
Quarterly	FDS	mg/L	Grab
Quarterly	Sodium	mg/L	Grab
Quarterly	Nitrate as N	mg/L	Grab
Quarterly	TKN	mg/L	Grab
Quarterly	Ammonia	mg/L	Grab
Quarterly	Total Nitrogen	mg/L	Computed
Annually	General Minerals ¹	mg/L	Grab

¹ Defined on page 9

POND MONITORING (PND-001)

Permanent markers (e.g. staff gauges) shall be placed in the storage pond. The marker shall have calibrations indicating the water level at design capacity and available operational freeboard. Wastewater pond monitoring shall include at least the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Weekly	Freeboard	Feet ¹	Grab
Weekly	Dissolved Oxygen	mg/L	Grab
Annually ²	Solids Depth ³	Feet ¹	Grab

¹ To nearest tenth of a foot

² In October

³ Thickness of settled solids at the bottom of the pond

The Discharger shall inspect the condition of the wastewater pond weekly and record observations in a bound logbook. Notations shall include observations of whether weeds are developing in the water or along the bank, and their location; whether grease, dead algae, vegetation, scum, or debris are accumulating on the pond surface and their location; whether odors are emanating from the pond and their strength (e.g. pungent sour smell noticeable from 100 feet away, mild organic odor at pond surface, etc.); whether burrowing animals or insects are present; and the color of the wastewater (e.g., dark green, dull green, yellow, gray, tan, brown, etc.). A summary of the entries made in the log shall be included in the subsequent monitoring report.

SOURCE WATER MONITORING (SW-001)

For each source (either well or surface water supply), the Discharger shall calculate the flow-weighted average concentrations for the specified constituents.

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Monthly	Flow-Weighted EC	µmhos/cm	Computed Average
Annually	General Minerals	mg/L	Grab

USE AREA MONITORING (UA-001)

The Discharger shall perform the following routine monitoring and loading calculations for each discrete irrigation area within the Use Area. Data shall be collected and presented in tabular format and shall include the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Daily ¹	Application Area	acres	n/a
Daily ¹	Wastewater flow	gallons	Estimated
Daily ¹	Wastewater loading	inches/day	Calculated
Daily ¹	Supplemental irrigation	gallons	Estimated
Daily ¹	Precipitation	inches	Rain gage ²
Monthly	Total Hydraulic Loading ³	inches/acre-month	Calculated
<u>BOD Loading⁴</u>			
Daily ¹	Day of application	lbs/ac/day	Calculated
Cycle	Cycle average ⁵	lbs/ac/day	Calculated
<u>Nitrogen Loading⁴</u>			
Annual	From wastewater	lbs/ac/yr	Calculated
Annual	From fertilizers	lbs/ac/yr	Calculated
Annual	From supplemental irrigation water	lbs/ac/yr	Calculated
<u>Salt Loading⁴</u>			
Annual	From wastewater	lbs/ac/yr	Calculated
Annual	From irrigation water	lbs/ac/yr	Calculated

¹ When wastewater is applied to the Use Area

² National Weather Service or CIMIS data from the nearest weather station is acceptable.

³ Combined loading from wastewater, irrigation water, and precipitation.

⁴ The BOD, salt, and nitrogen loading rate shall be calculated using the applied volume of wastewater, applied acreage, and average of the three most recent BOD, FDS, and total nitrogen analytical results.

⁵ A cycle average is calculated by taking the pounds of BOD applied to the land application area 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 cycle average is the pounds per acre applied by the discharge (300 pounds) divided by the total number of days (three). The BOD cycle average loading would be 100 lbs per acre.

In addition, the Discharger shall inspect the Use Area on a weekly basis. Evidence of erosion, field saturation, runoff, or the presence of nuisance conditions (i.e., flies, ponding, etc.) shall be noted in field logs and included as part of the quarterly monitoring reports.

REPORTING

All monitoring results shall be reported in **Quarterly Monitoring Reports** which are due by the first day of the second month after the calendar quarter. Therefore, monitoring reports are due as follows:

First Quarter Monitoring Report:	1 May
Second Quarter Monitoring Report:	1 August
Third Quarter Monitoring Report:	1 November
Fourth Quarter Monitoring Report:	1 February.

The Central Valley Water Board has gone to a Paperless Office System. All regulatory documents, submissions, materials, data, monitoring reports, and correspondence 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. Documents that are 50MB or larger should be transferred to a disk and mailed to the appropriate regional water board office, in this case 1685 E Street, Fresno, CA, 93706.

To ensure that your submittals are routed to the appropriate staff, the following information block should be included in any email used to transmit documents to this office:

Program: Non-15, WDID: 5D151197001, Facility Name: Sun Pacific Bakersfield Facility,
Order: R5-2017-0126

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner that illustrates clearly, whether the Discharger complies with waste discharge requirements. In addition to the details specified in 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. Laboratory analysis reports do not need to be included in the monitoring reports; however, the laboratory reports must be retained for a minimum of three years in accordance with Standard Provision C.3.

All monitoring reports shall comply with the signatory requirements in Standard Provision B.3. 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. All Quarterly Monitoring Reports, shall include the following:

Wastewater reporting

1. The results of discharge and pond monitoring specified on pages 2 & 3.
2. For each month of the quarter, calculation of the maximum daily flow, monthly average flow, and cumulative annual flow.
3. For each month of the quarter calculate the 12-month rolling average EC of the discharge and compare it to the 12-month average EC of the source water.
4. A summary of the notations made in the pond monitoring log during each quarter. The entire contents of the log do not need to be submitted.

Source water reporting

1. The results of monthly monitoring for EC and quarterly monitoring for General Minerals specified on [page 4](#). Results must include supporting calculations.

Use Area reporting

1. The results of the routine monitoring and loading calculations specified on [pages 4 & 5](#).
2. For each month of the quarter, calculation of the monthly hydraulic load for wastewater and supplemental irrigation water in millions of gallons to each discrete irrigation area.
3. A summary of the notations made in the Use Area monitoring log during each quarter. The entire contents of the log do not need to be submitted.
4. For each month, calculation of the daily BOD cycle average using BOD results for the past three months.

B. Fourth Quarter Monitoring Reports, in addition to the above, shall include the following:

Wastewater treatment facility information

1. The names and general responsibilities of all persons in charge of wastewater management.
2. The names and telephone numbers of persons to contact regarding the discharge for emergency and routine situations.
3. 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).
4. A summary of any changes in processing that might affect waste characterization and/or discharge flow rates.

Solids reporting

1. Annual production totals by type (i.e., pond sludge versus culled fruit), in dry tons or cubic yards.
2. A description of disposal methods, including the following information related to the disposal methods used. If more than one method is used, include the percentage disposed of by each method.
 - a. For landfill disposal, include: the name and location of the landfill, and the Order number of WDRs that regulate it.
 - b. For land application, include: the location of the site, and the Order number of any WDRs that regulate it.
 - c. For incineration, include: the name and location of the site where incineration occurs, the Order number of WDRs that regulate the site, the disposal method of ash, and the name and location of the facility receiving ash (if applicable).
 - d. For composting, include: the location of the site, and the Order number of any WDRs that regulate it.
 - e. For animal feed, include: the location of the site, and the Order number of any WDRs that regulate it.

Use Area reporting

1. The type of crop(s) grown in the Use Area, planting and harvest dates, and the quantified nitrogen and fixed dissolved solids uptakes (as estimated by technical references or, preferably, determined by representative plant tissue analysis).
2. The monthly and annual discharge volumes during the reporting year expressed as million gallons and inches.
3. A monthly balance for the reporting year that includes:
 - a. Monthly average ET (observed evapotranspiration) – Information sources include California Irrigation Management Information System (CIMIS) <http://www.cimis.water.ca.gov/>
 - b. Monthly crop uptake
 - i. Crop water utilization rates are available from a variety of publications available from the local University of California Davis extension office.
 - ii. Irrigation efficiency – Frequently, engineers include a factor for irrigation efficiency such that the application rate is slightly greater than the crop utilization rate. A conservative design does not include this value.
 - c. Monthly average precipitation – this data is available at <http://www.cimis.water.ca.gov/> or at <http://www.ncdc.noaa.gov/oa/climate/online/ccd/nrmlprcp.html>.
 - d. Monthly average and annual average discharge flow rate.
 - e. Monthly estimates of the amount of wastewater percolating below the root zone (i.e., amount of wastewater applied in excess of crop requirements)
4. A summary of the cycle average BOD loading rates.

5. The total pounds of nitrogen applied to the reuse area(s), as calculated from the sum of the monthly loadings in lbs/acre-year.
6. The total pounds of fixed dissolved solids (FDS) that have been applied to the reuse area(s), as calculated from the sum of the monthly loadings to the reuse area(s) in lbs/acre-year.

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 December 2017
(Date)

GLOSSARY

BOD ₅	Five-day biochemical oxygen demand		
CBOD	Carbonaceous BOD		
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		
FDS	Fixed dissolved solids		
TSS	Total suspended solids		
Continuous	The specified parameter shall be measured by a meter continuously.		
24-Hour Composite	Samples shall be a flow-proportioned composite consisting of at least eight aliquots.		
Daily	Samples shall be collected every day.		
Twice Weekly	Samples shall be collected at least twice per week on non-consecutive days.		
Weekly	Samples shall be collected at least once per week.		
Twice Monthly	Samples shall be collected at least twice per month during non-consecutive weeks.		
Monthly	Samples shall be collected at least once per month.		
Bimonthly	Samples shall be collected at least once every two months (i.e., six times per year) during non-consecutive months.		
Quarterly	Samples shall be collected at least once per calendar quarter. Unless otherwise specified or approved, samples shall be collected in January, April, July, and October.		
Semiannually	Samples shall be collected at least once every six months (i.e., two times per year). Unless otherwise specified or approved, samples shall be collected in April and October.		
Annually	Samples shall be collected at least once per year. Unless otherwise specified or approved, samples shall be collected in October.		
mg/L	Milligrams per liter		
mL/L	Milliliters [of solids] per liter		
ug/L	Micrograms per liter		
µmhos/cm	Micromhos per centimeter		
mgd	Million gallons per day		
MPN/100 mL	Most probable number [of organisms] per 100 milliliters		
General Minerals	Analysis for General Minerals shall include at least the following:		
	Alkalinity	Chloride	Sodium
	Bicarbonate	Hardness	Sulfate
	Calcium	Magnesium	TDS
	Carbonate	Potassium	
	General Minerals analyses shall be accompanied by documentation of cation/anion balance.		

INFORMATION SHEET

INFORMATION SHEET – ORDER R5-2017-0126
SUN PACIFIC SHIPPING, LP AND GENERAL PARTNERS OF
THE SEVENTH STANDARD RANCH COMPANY
SUN PACIFIC BAKERSFIELD PACKINGHOUSE
KERN COUNTY

Background

Sun Pacific Shippers, LP, (Sun Pacific) owns and operates the Sun Pacific Bakersfield Plant (Facility), a citrus packing plant, north of Bakersfield in Kern County. The Facility was previously regulated by WDR 96-169 which authorized a daily process wastewater discharge of up to 36,000 gpd and a daily cooling/coil defrost wastewater discharge of up to 130,000 gpd.

Existing Discharge

The Facility consists of a citrus packing house, cold storage facility, storage pond, and Use Area. The citrus packing house generates an average of 20,000 gallons per day of wastewater during the packing season, typically November to June. The citrus packing wastewater contains small amounts of detergents and food grade wax. The Cold Storage Buildings generated an average of 56,000 gallons per day of coil defrost/cooling water year round. Seaco 3240 (7-10% potassium hydroxide, 10-15 % proprietary mixture of corrosion and scale inhibitors) is added as a corrosion inhibitor. The waste streams from the citrus processing and cold storage operations are comingled in the storage pond, pumped to irrigation ponds, blended with irrigation water and used to irrigate 1,158 acres of grape vineyards that makeup the Use Area. Domestic waste is discharged to a septic tank leach field system which is regulated by Kern County.

Sun Pacific uses sanitizing solutions (e.g. 50 mg/L sodium hypochlorite) and water with antifoaming agents to clean the fruit. Waxes and fungicides are applied to the fruit. Culled fruit is collected and sold for animal feed.

Groundwater Conditions

The Facility and Use Area are in the Kern County Basin. Regional groundwater underlying the area is first encountered at about 420 feet below ground surface (bgs) and flows generally to the west; according to the DWR Groundwater Information Center (GIC) Interface map using data from Spring 2016.

A review of the United States Geological Survey (USGS) files obtained for the Water Quality Portal website indicates 3 wells are located within a 1 mile radius of the Facility. From a single sampling event from 1955 the three wells show generally poor quality water. This data is found in Finding 18 of the Order.

During the period 2011 through 2016, the source water well for the Facility was monitored for electrical conductivity. During this period source water EC averaged 794 $\mu\text{mhos/cm}$ and ranged from 750 to 850 $\mu\text{mhos/cm}$. Finding 26 of the Order contains sample results for the source water from a single sampling event on 28 December 2016, these results indicate fairly good quality water.

Additional Regulatory Considerations

The Basin Plan states that the evaporation or reclaimable wastewater is not an acceptable permanent disposal method where the opportunity exists to replace an existing use or proposed use of fresh water with reclaimed water. To that end, Sun Pacific blending its wastewater with irrigation water (groundwater) provides supplemental irrigation water for farming purposes.

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

The 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 order were in effect. The Central Valley 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.

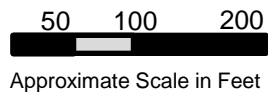
Reopener

The conditions of discharge in the proposed 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 proposed Order would set 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.



Storage Pond

Drawing
Reference:
Google Earth
Map Data: © 2016



FACILITY MAP
SUN PACIFIC SHIPPERS, LP
AND
GENERAL PARTNERS OF THE
SEVENTH STANDARD RANCH COMPANY
SUN PACIFIC BAKERSFIELD PACKINGHOUSE
KERN COUNTY

ATTACHMENT A



Sun Pacific Packing Facility

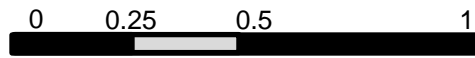
Land Application Area

Cawelo

Zerker Rd

Lerdo

Drawing Reference:
Google Earth
Map Data: © 2016

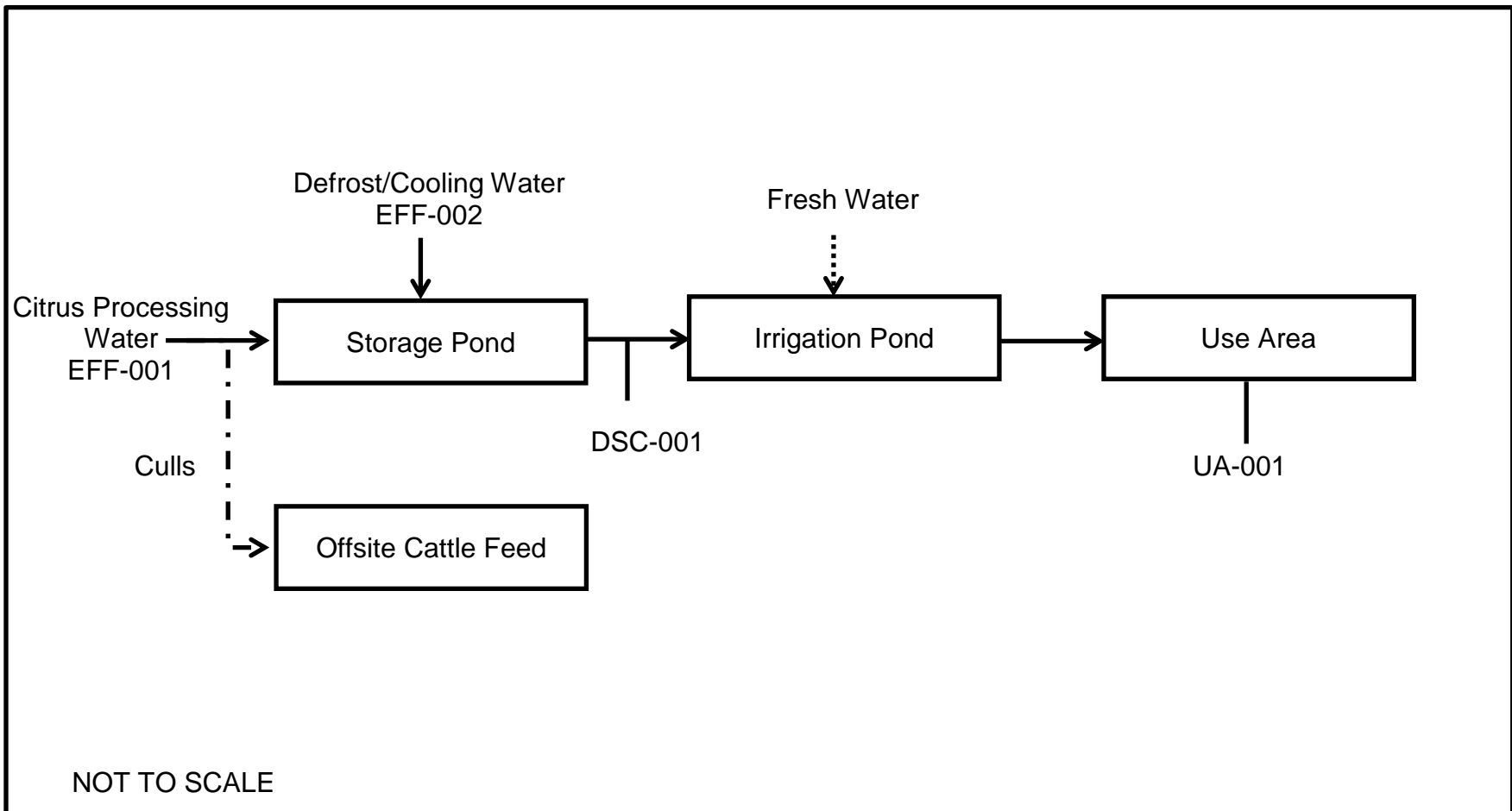


Approximate Scale in Miles



SITE MAP
SUN PACIFIC SHIPPERS, LP
AND
GENERAL PARTNERS OF THE
SEVENTH STANDARD RANCH COMPANY
SUN PACIFIC BAKERSFIELD PACKINGHOUSE
KERN COUNTY

ATTACHMENT B



PROCESS FLOW DIAGRAM

ORDER R5-2017-0126
WASTE DISCHARGE REQUIREMENTS

FOR
SUN PACIFIC SHIPPERS, LP
AND
GENERAL PARTNERS OF THE
SEVENTH STANDARD RANCH COMPANY
SUN PACIFIC BAKERSFIELD PACKINGHOUSE
KERN COUNTY

ATTACHMENT C