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WASTE DISCHARGE REQUIREMENTS ORDER R5-2024-XXXX



ORDER INFORMATION

Order Type(s):	Waste Discharge Requirements (WDRs)
Status:	ADMINISTRATIVE DRAFT
Program:	Non-15
Region 5 Office:	Redding
Discharger(s):	Pacific Coast Producers, Inc.
Facility:	Oroville Processing Facility and Palermo Land Application Area
Address:	1601 Mitchell Ave, Oroville
County:	Butte County
Parcel Nos.:	027-200-075, 027-200-028, 027-200-040, 027-200-041, 027-200-042, 027-200-044, 027-200-021, and 027-220-011
CIWQS Place ID:	435629
Prior Order(s):	R5-2017-0023

CERTIFICATION

I, PATRICK PULUPA, Executive Officer, hereby certify that the following is a full, true, and correct copy of the order adopted by the California Regional Water Quality Control Board, Central Valley Region, on XX December 2024

PATRICK PULUPA,
Executive Officer

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GLOSSARY

Antidegradation Policy.....	Statement of Policy with Respect to Maintaining High Quality Waters in California, State Water Board Resolution 68-16
Basin Plan	Water Quality Control Plan for [BASIN]
Bgs	Below Ground Surface
BOD[5]	[Five-Day] Biochemical Oxygen Demand at 20° Celsius
BPTC.....	Best Practicable Treatment and Control
CEQA	California Environmental Quality Act, Public Resources Code section 21000 et seq.
CEQA Guidelines	California Code of Regulations, Title 14, section 15000 et seq.
C.F.R.....	Code of Federal Regulations
COC[s]	Constituent[s] of Concern
DO.....	Dissolved Oxygen
DTSC	California Department of Toxic Substances Control
DWR.....	California Department of Water Resources
EC	Electrical Conductivity
EIR	Environmental Impact Report
FDS	Fixed Dissolved Solids
FEMA	Federal Emergency Management Agency
IPP	Industrial Pretreatment Program
LAA	Land Application Area
lbs/ac/yr.....	Pounds per Acre per Year
µg/L.....	Micrograms per Liter
µmhos/cm.....	Micromhos per Centimeter
MG[D].....	Million Gallons [per Day]

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BUTTE COUNTY

mg/L	Milligrams per Liter
msl.....	Mean Sea Level
MRP	Monitoring and Reporting Program
MW.....	Monitoring Well
MCL.....	Maximum Contaminant Level per Title 22
mJ/cm2.....	Millijoules per Square Centimeter
N.....	Nitrogen
ND	Non-Detect
NE	Not Established
NM.....	Not Monitored
ORP	Oxidation Reduction Potential
Recycled Water Policy	Policy for Water Quality Control for Recycled Water, State Water Board Resolution 2009-0011, as amended per Resolutions 2013-0003 and 2018-0057
R[O]WD.....	Report of Waste Discharge
RCRA	Resource Conservation and Recovery Act
SPRRs	Standard Provisions and Reporting Requirements
SERC	State Emergency Response Commission
TDS.....	Total Dissolved Solids
Title 22	California Code of Regulations, Title 22
Title 23	California Code of Regulations, Title 23
Title 27	California Code of Regulations, Title 27
TKN.....	Total Kjeldahl Nitrogen
Unified Guidance.....	Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance (USEPA, 2009)

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USEPA.....United States Environmental Protection Agency

VOC[s].....Volatile Organic Compound[s]

WDRs.....Waste Discharge Requirements

WQO[s]Water Quality Objective[s]

FINDINGS

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) hereby finds as follows:

INTRODUCTION

1. Pacific Coast Producers (Discharger) owns and operates a fruit processing facility (Facility) located in Oroville that generates process wastewater that is conveyed and discharged to a land application area (LAA) owned by the Discharger located approximately 6.5-miles south of the Facility, south of Palermo. The Facility and LAA locations are depicted on the maps in **Attachments A and B**.
2. The Facility is located at 1601 Mitchel Avenue in Oroville, Butte County, Section 17, Township 19N, Range 4E, Mount Diablo Base and Meridian (MDB&M) and occupies Assessor's Parcel Number (APN) 035-450-018. The LAA is located at 2095 Alice Avenue in Palermo, Butte County, Sections 17, 20, and 29, T18 N, R4E, MDB&M and occupies APNs 027-200-021, 027-200-028, 027-200-040, 027-200-041, 027-200-042, 027-200-044, and 027-200-075. The Facility sits on approximately 21 acres and the LAA is approximately 493 acres.
3. As Facility owner and operator, the Discharger is responsible for compliance with these WDRs.
4. The following materials are attached and incorporated as part of this Order:
 - a. ATTACHMENT A — SITE LOCATION MAP
 - b. ATTACHMENT B — FACILITY, PIPELINE, AND LAA OVERVIEW MAP
 - c. Standard Provisions & Reporting Requirements dated 1 March 1991 (SPRRs).
 - d. Information Sheet.
5. Also attached is **Monitoring and Reporting Program R5-2024-XXXX** (MRP), which requires monitoring and reporting for discharges regulated under these Waste Discharge Requirements (WDRs).
6. Any additional information set forth in the attached **Information Sheet** is also incorporated herein.

Regulatory History

7. Current WDRs Order R5-2017-0023, adopted on 24 February 2017, prescribes requirements for the discharge of fruit process wastewater from the Discharger's processing facility in Oroville to a 409-acre LAA near Palermo. WDRs Order R5-2017-2023 allows a monthly average wastewater flow of up to 650,000 gallons per day (gpd) from 1 October to 15 November, 250,000 gpd from 16 November to 30 June, and three million gallons per day (mgd) from 1 July to 30 September. The Discharger is unable to consistently comply with the flow and effluent limitations contained in the current WDRs.
8. On 29 August 2018, the Discharger submitted a Report of Waste Discharge (ROWD) that describes expansion of its existing LAA for fruit processing wastewater and residual solids that are currently discharged to land in Palermo. The expansion area consists of approximately 84-acres in the former Daly Ranch area. Additionally, on 20 March 2019, the Discharger requested an increase in the fixed dissolved solids flow-weighted average concentration limit from 576 to 1,100 milligrams per liter. Central Valley Water Board staff also received a request dated 9 March 2020 to change the organic loading rate Risk Category from 2 to 3 based on the California League of Food Processors Manual of Good Practice for Land Application of Food Processing/Rinse Water, increasing the 5-day biochemical oxygen demand loading limit from to 150 to 242 pounds per acre per day. The ROWD was deemed complete on 10 August 2021.

Existing Facility and Discharge

9. The Discharger produces canned fruit, including peaches, pears, and fruit cocktail (mixed fruit in single serve plastic bowls, with fruit and syrup or fruit and gel combinations).
10. Process wastewater is generated during fruit washing, equipment sanitation, and product transfers within the processing facility (via flumes and pumps). Solids are removed from the process wastewater by a screen prior to being discharged to a sump and ultimately the conveyance pipeline. During maintenance, process wastewater is discharged to the emergency pond at the Facility. Effluent samples are collected by a composite sampler located at the irrigation sump at the LAA as shown in Attachment C. Screened solids are used as soil amendments at the LAA.
11. Process wastewater and some of the storm water from the Facility are transported from the Facility to the LAA in a 6 ½-mile pipeline. For final disposal, the process wastewater and storm water are applied to an approximately 409-acre LAA, which currently consists of 11 fields (0-10 and 12) and three unlined ponds. Of the three ponds, one is the process facility holding pond, the

second is an emergency storage pond, and the third is a freshwater pond, as shown in Attachment C. Process wastewater is land applied by spray irrigation.

12. The Facility encompasses 21 acres, all of which are owned by the Discharger. The Facility consists of a covered production plant, several warehouses, and a 65,000-gallon emergency pond.
13. Water is supplied to the processing facility by California Water Service Company. Domestic wastewater is discharged to the Sewerage Commission – Oroville Region Wastewater Treatment Plant.
14. The 21-acre Facility is approximately 75 percent covered by pavement or buildings. The Facility has an industrial stormwater permit for the discharge of approximately 20 percent of the stormwater from the processing Facility, approximately 30 percent infiltrates onsite, with the remaining approximately 50 percent of stormwater is discharged to either the process wastewater holding pond or directly to Field 8. Generally, stormwater is not comingled with process water as the process season does not coincide with the rainy season and stormwater is conveyed directly to Field 8. If stormwater is comingled with process water, the comingled water is conveyed to the process water holding pond and subsequent LAA.
15. The current LAA is divided into eleven fields, separated by levees, dikes, and roads, and plumbed together through a series of gates, culverts, and pumps. Various grasses are currently grown in the LAA. The Discharger employs the use of spray irrigation methods for land application. During the process season, when significant precipitation is not forecasted process wastewater is applied to all fields. During the non-process season, when significant precipitation is not forecasted process wastewater is applied to Fields 0-4; during rainy periods, process wastewater is applied to Fields 5, 7, or 8, which are not located in the 100-year floodplain. A 2.5-million-gallon emergency storage pond is in Field 9. The storage pond is used to manage stormwater runoff from Fields 5, 6, 7, and 8, and to hold process wastewater during periods of heavy rainfall. The Discharger intends to use Fields 10 and 12 during years with high precipitation and at the end of the process season.
16. Caustic peeling (lye) which is utilized for peaches and pears at the Cannery has been a primary contributor to salinity and sodium levels in effluent. In 2014 the facility switched from sodium hydroxide to potassium hydroxide which has reduced the sodium loading but increased potassium loading.
17. Water softening agent use at the Cannery is estimated at 11,000 lbs. of salt per year. The Cannery continually monitors softeners to ensure that they are in good operating condition to run as efficiently as possible.

18. Various chemicals are used for good manufacturing procedures and food safety including hydrochloric acid and sodium hypochlorite, which adds up to about 6,000 gallons of process wastewater per year. It is estimated that these chemicals add 11,000 lbs. of salts per year to process wastewater.
19. A summary of the process wastewater characteristics based on monitoring data from March 2017- December 2022 is provided in Table 1. Wastewater samples are obtained after solids screening.

Table 1 – Effluent Data from March 2017-December 2022

Constituent	Unit	Minimum	Maximum	Average	Count
EC	µmhos/cm	35	3490	1076	126
pH	SU	3.75	11.5	6.30	126
COD	mg/L	20	30000	6285	126
BOD	mg/L	0	9100	3182	126
TKN	mg/L	0	200	27	126
Nitrate as N	mg/L	0	230	2.4	126
TDS	mg/L	21	6700	2370	126
FDS	mg/L	0	3900	742.4	126

Planned Changes in the Facility

20. The Discharger is planning to expand the LAA to include an additional parcel within the adjacent Daly Ranch. The additional LAA includes three additional fields, Field 11A, 11B, and Field 11C, which totals approximately 84 acres is zoned Agriculture (AG-40) and currently used for grazing and fodder production. The planned expansion would not involve the removal of trees and avoids all wetland features as delineated in the Special Status Plant Survey and Biological Resources Technical Report dated November 2017, contained in the approved ROWD. The quantity of process wastewater applied to land will remain at current volumes; therefore, the expansion to 493 acres will reduce overall constituent areal loading rates.

21. The current site has 409 acres of irrigable land with a loading capacity of 330 lbs./acre/year of total nitrogen. The proposed expansion would add 84 acres of irrigable land with a similar nitrogen loading capacity. The expansion to 493 irrigable acres would reduce the areal loading rates of all the constituents of concern.

Site-Specific Conditions

Topography, Climate, and Land Use

22. Surface elevation at the site ranges from approximately 115-145 feet above mean sea level and gently slopes to the south.
23. The Facility and LAA are in a Mediterranean climate characterized by dry summers and wet winters; the rainy season is typically from November through April. According to the Western Regional Climate Center's online database the nearest precipitation monitoring station is Oroville, Station 046521, the average annual precipitation from 1983-2005 is 28.77 inches. According to data in the 1982 *Technical Report NWS 34, Mean Monthly, Seasonal, and Annual Pan Evaporation for the United States*, published by the United States Department of Commerce, National Atmospheric Administration, the average annual pan evaporation is 70.78 inches at Oroville Dam, Station 6527.
24. The Facility and LAA are located within the Marysville Hydrologic Unit, Lower Feather River Hydrologic Area No. 515.40 as shown on hydrologic maps prepared by the California Department of Water Resources (DWR).
25. The surface soils at the LAA are approximately one foot deep and have been classified as primarily Perkins Gravelly Loam (Fields 0-4) and Kimball Loam (Fields 5 to 8). Beneath the topsoil is a discontinuous semi-consolidated to consolidated hardpan. Percolation rates range from 0 to 7.5 in/hr with an area-weighted mean of 2.44 in/hr.
26. The LAA is bordered by the South Feather Water and Power District canal along the southeast corner, Wyandotte Creek along the south, and an irrigation ditch along the west. The canal and ditch drain to Wyandotte Creek. During the rainy season, storm water runoff from the LAA drains to the irrigation ditch located along the western boundary. Gate valves control discharge to the western irrigation ditch, and the Discharger manages the gate valves to prevent the discharge of storm water that has commingled with process wastewater.
27. The emergency storage pond volume at the Facility is 65,000 gallons. Fields 0 to 10 and 12 comprise the current LAA, Field 11 is the new LAA. The field acreage is stated in the following table.

Table 2 - Palermo LAA Field Acreage

Field	0	1	2a	2b	3	4	5a	5b	6	7a	7b	8	9	10	11a	11b	11c	12
Acres	6	8.9	9.4	14.2	26.1	64.1	8.4	40.6	54.3	14.9	3.6	43.5	14.7	85	32	33	19	15

28. Annual process wastewater flow rates from 2017-2022 are listed in the table below.

Table 3 - Annual Process Wastewater Flow from 2017-2022

Year	2017	2018	2019	2020	2021	2022
Flow, MG	75.55	111.37	150.57	160.18	157.03	159.77

Groundwater Conditions

29. The land application area has a total of five groundwater monitoring wells that are sampled semiannually: MW-1 is upgradient to the LAA, MW-2 has been dry since 2017 and sits between Fields 1 and 2 in the northern portion of the LAA, MW-3 is downgradient to Field 6, MW-4 is downgradient to Fields 10 and 3, and MW-H is upgradient of the wastewater pond but appears to be influenced by pond mounding; MW-1 through MW-4 are developed at depths 43-feet, 40-feet, 32-feet, and 40-feet respectively, and MW-H is developed to a depth of 40-feet. Groundwater generally flows towards the west or southwest under a hydraulic gradients ranging from 0.003-0.0003 feet/foot. Monitoring data from 2017-2022 shows depth to groundwater at approximately 19.4 – 39.8 feet bgs and groundwater elevations at approximately 89.85 – 105.6 feet amsl.
30. Average Groundwater Quality from 2017-2022 is shown in Table 4, MW-2 has been dry since 2017 and excluded from the following table:

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Table 4 - Groundwater Quality from 2017-2022

	MW-1 (Upgradient)			MW-3			MW-4			MW-H			WQO
	Avg	Range	Count	Avg	Range	Count	Avg	Range	Count	Avg	Range	Count	
EC (µmhos/cm)	248	230-270	8	302	230-360	11	360	320-400	9	805	490-1000	11	900
TDS (mg/L)	209	200-220	8	251	200-490	11	262	240-280	9	524	330-620	10	500
FDS (mg/L)	174	160-200	8	192	160-230	11	218	200-230	9	406	260-500	10	-
NO ₃ as N (mg/L)	1.7	1.4-2	8	1.6	0.8-2.6	11	0.7	0.1-0.9	9	3.4	2.3-5.3	11	10
TKN (mg/L)	0.6	0-1	8	0.6	0-1	11	0.7	ND-1	9	0.7	ND-1	10	-
COD (mg/L)	3.9	1-7.5	8	3.5	0.7-7.5	10	3.7	0.7-7.5	8	3.7	2-7.5	9	-
pH (SU)	7.2	6.6-7.6	8	6.8	6.5-7.2	11	7	6.6-7.5	9	7	6.3-7.6	11	7-10.4
Dissolved Iron (µg/L)	0.6	ND-0.8	3	91	ND-180	6	0.08	ND-0.11	4	184	ND-300	6	300
Dissolved Arsenic (µg/L)	2.5	ND-2.5	3	ND	ND	6	ND	ND	4	4.3	ND-7.1	6	10
Dissolved Manganese (µg/L)	0.01	ND-0.01	3	ND	ND	6	ND	ND	4	354	ND-1200	6	50

31. In the past, additional monitoring wells were part of the monitoring well network. The 1993 technical report, *Summary of Soil Logging and Groundwater Quality*, reports that former monitoring wells A through C, and F were installed in 1974, but information regarding the well construction is not available. These wells are reportedly 10 feet deep. In November 1987, wells D and E were installed to 38 and 41 feet bgs with 4-inch PVC casing. In June 1994, monitoring wells G and H were installed to 40 feet deep and are constructed using 2-inch diameter PVC casing. Four additional monitoring wells (MW-1 through MW-4) were constructed within the LAA in May 2003, at depths of 43 feet, 40 feet, 32 feet, and 40 feet respectively. Depth to groundwater ranged from 15 to 40 feet below ground surface (99 to 110 feet MSL). The additional wells were installed in response to a directive from the Central Valley Water Board to characterize groundwater and determine groundwater quality upgradient and downgradient of the LAA. The Central Valley Water Board was specifically concerned about increased concentrations of nitrate and dissolved salts. Monitoring wells A-G are not considered representative of overall groundwater conditions due to their shallow construction and the possibility of direct influence by the adjacent ponds. Monitoring wells D, E, and G have been decommissioned. Mounding appears to be impacting MW-H due to its close proximity to the process water holding pond and not representative of mixed groundwater conditions.

Statutory Authority

32. This Order is adopted pursuant to Water Code section 13263, subdivision (a), which provides in pertinent part as follows:

The regional board, after any necessary hearing, shall prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge..., with relation to the conditions existing in the disposal area or receiving waters upon, or into which, the discharge is made or proposed.

33. Compliance with section 13263, subdivision (a), including implementation of applicable water quality control plans, is discussed in the findings below.
34. The ability to discharge waste is a privilege, not a right, and adoption of this Order shall not be construed as creating a vested right to continue discharging waste. (Wat. Code, § 13263, subd. (g).)
35. This Order and its associated Monitoring and Reporting Program (MRP) are also adopted pursuant to Water Code section 13267, subdivision (b)(1), which provides as follows:

[T]he 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 ... 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.

36. The reports required under this Order, as well as under the separately issued MRP, are necessary to verify and ensure compliance with WDRs. The burden associated with such reports is reasonable relative to the need for their submission.

Basin Plan Implementation

Basin Plan, Beneficial Uses, and Regulatory Considerations

37. The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins*, Fourth Edition (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting waters of the basin, and incorporates by reference plans and policies adopted by the State Water Board. Pursuant to Water Code section 13263(a), waste discharge requirements must implement the Basin Plan.
38. Local drainage is to Wyandotte Creek, which drains into North Honcut Creek, which drains to Honcut Creek, a tributary to the Feather River below Lake Oroville. The beneficial uses of the Feather River as stated in the Basin Plan (Table II-1) include municipal and domestic supply; agricultural supply; hydropower generation; water contact recreation; non-contact water recreation; aquaculture; warm freshwater habitat; cold freshwater habitat; wildlife habitat; migration of aquatic organisms; spawning, reproduction, and/or early development.
39. The beneficial uses of underlying groundwater as set forth in the Basin Plan are municipal and domestic supply, agricultural supply, industrial service supply and industrial process supply.
40. The Basin Plan establishes narrative water quality objectives for chemical constituents, tastes and odors, and toxicity in groundwater. 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.

41. The Basin Plan's numeric water quality objective for bacteria requires that the most probable number (MPN) of coliform organisms over any seven-day period shall be less than 2.2 per 100 mL in MUN designated groundwater.
42. The Basin Plan's narrative water quality objectives for chemical constituents, at a minimum, require waters designated as domestic or municipal supply to meet the MCLs specified in Title 22 of the California Code of Regulations (hereafter Title 22). The Basin Plan recognizes that the Central Valley Water Board may apply limits more stringent than MCLs to ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses.
43. The narrative Basin Plan toxicity objective requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, animal, plant, or aquatic life associated with designated beneficial uses.
44. Quantifying a narrative water quality objective requires a site-specific evaluation of those constituents that have the potential to impact water quality and beneficial uses. The Basin Plan states that when compliance with a narrative objective is required to protect specific beneficial uses, the Central Valley Water Board will, on a case-by-case basis, adopt numerical limitations in order to implement the narrative objective.
45. In the absence of specific numerical water quality limits, the Basin Plan methodology is to consider any relevant published criteria. General salt tolerance guidelines, such as *Water Quality for Agriculture* by Ayers and Westcot and similar references indicate that yield reductions in nearly all crops are not evident when irrigation water has an EC less than 700 $\mu\text{mhos/cm}$. There is, however, an eight- to ten-fold range in salt tolerance for agricultural crops and the appropriate salinity values to protect agriculture in the Central Valley are considered on a case-by-case basis.
46. For the purpose of this Order, saline waste is defined as wastewater that contains high concentrations of fixed dissolved solids (FDS), which can also be expressed as inorganic dissolved solids (IDS). Because salts occur naturally in all waters, and because the naturally occurring salt concentrations vary depending on the water supply, it is not practical to define saline waste region-wide as that which exceeds a certain FDS concentration. Generally speaking, saline waste is that for which the FDS concentration is more than 300 mg/L higher than the TDS concentration of the water supply. Although there are many individual ions that can impact the beneficial uses of groundwater, nitrate, sodium, and chloride are the predominant salts of concern in the Central Valley Region.

47. For the purpose of this Order, high strength waste is defined as wastewater that contains concentrations of readily degradable organic matter that exceeds typical concentrations for domestic sewage. Such wastes contain greater than 500 mg/L BOD and often contain commensurately high levels of total Kjeldahl nitrogen (TKN), which is a measure of organic nitrogen and ammonia nitrogen. Typical high strength wastewaters include septage, some food processing wastes, winery wastes, and rendering plant wastes.
48. Excessive application of high strength wastewater to land can create objectionable odors, soil conditions that are harmful to crops, and degradation of underlying groundwater with nitrogen species and metals, as discussed below. Such groundwater degradation can be prevented or minimized through implementation of best management practices which include planting crops to take up plant nutrients and maximizing oxidation of BOD to prevent nuisance conditions.
49. Unless groundwater is very shallow, groundwater degradation with nitrogen species such as ammonia and nitrate can be prevented by minimizing percolation below the root zone of the crops and ensuring that the total nitrogen load does not exceed crop needs over the course of a typical year. Where there is sufficient unsaturated soil in the vadose zone, excess nitrogen can be mineralized and denitrified by soil microorganisms.
50. With regard to BOD, excessive application can deplete oxygen in the vadose zone and lead to anoxic conditions. At the ground surface, this can result in nuisance odors and fly-breeding. When insufficient oxygen is present below the ground surface, anaerobic decay of the organic matter can create reducing conditions. Reducing conditions convert metals that are naturally present in the soil as relatively insoluble (oxidized) forms to more soluble reduced forms. This condition can be exacerbated by acidic soils and/or acidic wastewater. If the reducing conditions do not reverse as the percolate travels down through the vadose zone, these dissolved metals (primarily iron, manganese, and arsenic) can degrade shallow groundwater quality. Many aquifers contain enough dissolved oxygen to reverse the process, but excessive BOD loading over extended periods may cause beneficial use impacts associated with these metals.
51. Typically, irrigation with high strength wastewater results in high BOD loading on the day of application. It is reasonable to expect some oxidation of BOD at the ground surface, within the evapotranspiration zone and below the root zone within the vadose (unsaturated) zone. The maximum BOD loading rate that can be applied to land without creating nuisance conditions or leaching of metals can vary significantly depending on soil conditions and operation of the land application system.

52. *Pollution Abatement in the Fruit and Vegetable Industry*, published by the United States Environmental Protection Agency, cites BOD loading rates in the range of 36 to 600 lbs./acre/day to prevent nuisance, but indicates the loading rates can be even higher under certain conditions. The studies that supported this report did not evaluate actual or potential groundwater degradation associated with those rates. There are few studies that have attempted to determine maximum BOD loading rates for protection of groundwater quality. Those that have been done are not readily adapted to the varying soil, groundwater, and climate conditions that are prevalent throughout the region.
53. The California League of Food Processors' *Manual of Good Practice for Land Application of Food Processing/Rinse Water* proposes risk categories associated with BOD loading rate ranges as follows:

Table 5 - Organic Loading Rate Risk Categories

Risk Category	Average BOD5 Loading Rate (lb/acre/day)	Depth to Groundwater (feet)	Notes
1	≤ 50	> 5	Indistinguishable from good farming operations with good distribution important.
2	≤ 100	> 5	Minimal risk of unreasonable groundwater degradation with good distribution more important. Requires detailed planning and good operation with good distribution very important to prevent unreasonable
3	> 100	> 2	degradation, as well as use of oxygen transfer design equations that consider site-specific application cycles and soil properties and special monitoring.

Both loading rate and depth-to-groundwater conditions should be met to qualify for a particular category

Depth to groundwater is measured from the soil surface and should be calculated as the average during the application season.

54. The *Manual of Good Practice* recommends allowing a 50 percent increase in the BOD loading rates in cases where sprinkler irrigation is used but recommends that additional safety factors be used for sites with heavy and/or compacted soils.

55. The *Manual of Good Practice* provides science-based guidance for BOD loading rates that, if fully implemented, are considered a best management practice to prevent groundwater degradation due to reduced metals.
56. The California League of Food Processors' *Manual of Good Practice for Land Application of Food Processing/Rinse Water* outlines risk categories for organic loading of discharges to land. Current WDRs considers this operation to be an organic loading Risk Category 2. To qualify for Risk Category 2, the depth to groundwater should be greater than 5 feet, this allows a BOD loading rate of 100 lbs/acre/day and an increase of 50% for sprinkler application on well-drained soil. According to the Web Soil Survey the existing LAA is well-drained, however the subsurface under the new LAA is somewhat poorly drained with very high runoff. The existing LAA could qualify as Category 3 as the depth to groundwater is greater than two feet. Based on equations given for Risk Category 3 in the *Manual*, the site conditions and spray irrigation give a BOD loading capacity of 242 lbs/acre/day at the site. The average BOD loading from 2017-2022 was 214.3 lbs/acre/day. The proposed LAA does not meet the requirement for a 50% increase as indicated in the *Manual* as the Websoil survey indicates the drainage class as somewhat poorly drained with very high runoff. Additionally, groundwater monitoring data does not consistently show high levels of dissolved iron, arsenic, and manganese, which would be expected to be mobilized under reduced conditions due to excessive BOD in the monitoring well network surrounding the LAA. However, MW-H has seen high levels of manganese during recent monitoring events. The Central Valley Water Board considers this operation to be a Risk Category 3.

Water Quality Objectives

57. The Basin Plan establishes narrative WQO's for chemical constituents, taste and odors, and toxicity in groundwater. 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.
58. Basin Plan's narrative WQO's for chemical constituents require MUN designated water to at least meet the MCLs specified in California Code of Regulations, title 22 (Title 22). The Basin Plan recognizes that the Central Valley Water Board may apply limits more stringent than MCLs to ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses.
59. Quantifying a narrative WQO requires a site-specific evaluation of those constituents that have the potential to impact water quality and beneficial uses. The Basin Plan states that when compliance with a narrative objective is required to protect specific beneficial uses, the Central Valley Water Board will, on a case-by-case basis, adopt numerical limitations to implement the narrative objective.

60. In the absence of specific numerical water quality limits, the Basin Plan methodology is to consider any relevant published criteria. General salt tolerance guidelines, such as *Water Quality of Agriculture* by Ayers and Westcot and similar references indicate that yield reductions in nearly all crops are not evident when irrigation water has an electrical conductivity (EC) of less than 700 $\mu\text{mhos/cm}$. There is, however, an eight-to ten-fold range in salt tolerance for agricultural crops and the appropriate salinity values to protect agriculture in the Central Valley are considered on a case-by-case basis.

Salt and Nitrate Control Programs

61. On 31 May 2018, the Central Valley Water Board adopted Basin Plan amendments incorporating the Salt Control Program and Nitrate Control Program. The State Water Resources Control Board (State Water Board) conditionally approved the amendments on 16 October 2019 (State Water Board Resolution 2019-0057). The effective date of the Basin Plan amendments was 17 January 2020 (Office of Administrative Law (OAL) Matter No. 2019-1203-03). For those components subject to United States Environmental Protection Agency (USEPA) approval, the effective date was 2 November 2020. On 10 December 2020, the Central Valley Water Board adopted revisions to the Basin Plan amendments (Resolution R5-2020-0057). The State Water Board conditionally approved these revisions on 1 June 2021 (State Water Board Resolution 2021-0019). The effective date of the revisions to the Basin Plan amendments was 10 November 2021 (OAL Matter No. 2021-0929-05S). The overarching goals and priorities of these programs are to (1) ensure safe drinking water supply; (2) reduce salt and nitrate loading so that ongoing discharges neither threaten to degrade high quality waters absent findings by the Central Valley Water Board nor cause or contribute to exceedances of WQOs; and (3) implement long-term, managed restoration of impaired water bodies.
62. For the Salt Control Program, dischargers that are unable to comply with stringent salinity requirements will instead need to participate in a basin-wide effort known as the Prioritization and Optimization Study (P&O Study), which is intended to develop a long-term salinity strategy for the Central Valley, and to implement reasonable, feasible, and practicable efforts to control salinity through performance-based measures determined the Central Valley Water Board. The Discharger (**CV-SALTS ID 2347**) was issued a Notice to Comply with the Salt Control Program on 5 January 2021. On 1 April 2021, the Discharger paid the fee to join the P&O Study. This Order requires the Discharger to continue efforts to control salinity in its discharge to the extent reasonable, feasible, and practicable and sets a performance-based effluent limit for EC of 125 percent of the measured annual average concentration. (See Requirement D, Effluent Limitations.) This Facility is not within a basin where compliance with the Nitrate Control Program is required, therefore, the Facility is not required to participate in the Nitrate Control Program.

Compliance with Antidegradation Policy

- 63. The *Statement of Policy with Respect to Maintaining High Quality Waters in California*, State Water Board Resolution 68-16 (Antidegradation Policy), which is incorporated as part of the Basin Plan, prohibits the Central Valley Water Board from authorizing degradation of “high quality waters” unless it is shown that such degradation: (1) will be consistent with the maximum benefit to the people of California; (2) will not unreasonably affect beneficial uses, or otherwise result in water quality less than as prescribed in applicable policies; and (3) is minimized through WDRs requiring implementation of the best practicable treatment or control necessary to assure that pollution or nuisance will not occur and the highest water quality consistent with the maximum benefit to the people of the State will be maintained (BPTC).
- 64. The Discharger has been consistently monitoring groundwater quality at the site since 1997. Determination of compliance with Resolution 68-16 is based on comparisons to background water quality.
- 65. Constituents of concern that have the potential to degrade groundwater include salts (primarily TDS, sodium, and chloride) and organics. MW-1 in Table 7 is used as background water quality. MW-3 and MW-4 sit downgradient to portions of the LAA and MW-H sits adjacent to the wastewater pond. Table 4, under Ground Water Conditions, Findings 31 include minimum and maximum values, as well as number of data points.

Table 6 – Constituents with Potential for Degradation

Constituent (Units)	Effluent (2017-2022)	MW-1 (Upgradient)	MW-3	MW-4	MW-H	WQOs
EC (µmhos/cm)	1076	248	302	360	805	900
TDS (mg/L)	2370	209	251	262	524	500
FDS (mg/L)	742.4	174	192	218	406	---
BOD	3182	---	---	---	---	---
COD	6285	3.9	3.5	3.7	3.7	

- a. **Salinity.** The Facilities high-strength saline wastewater appears to threaten the groundwater quality near the wastewater pond for salinity constituents.
- b. **Organics.** The Facility discharges five-day BOD average concentration of 3182 mg/L and COD average concentration of 6285 mg/L into the

wastewater pond, past groundwater monitoring does not show elevated levels of COD; BOD has not been included in past monitoring.

66. The requirements of this Order will result in the BPTC for the COCs described above. To minimize degradation by all COCs, this Order requires monitoring of effluent and groundwater and prescribes limits on effluent flows and constituent concentrations in groundwater. To minimize salinity- and chloride-related degradation, this Order requires compliance with the Salt Control Program (Discharger has chosen to participate in the P&O Study) and includes a performance-based effluent limit for salinity.
67. The Facility contributes to the economic prosperity of the region by providing a necessary service and employment for the local community, incomes for numerous aligned businesses, and tax base for local and county governments. The Discharger has 180 full time, year round employees and approximately 1,400 employees during peak processing season. Accordingly, to the extent that any degradation occurs as the result of the Facility's operation, such degradation is consistent with the maximum interest of the people of the State of California.
68. Based on the foregoing, the adoption of this Order is consistent with the State Water Board's Antidegradation Policy.

California Environmental Quality Act

69. The issuance of this Order, which prescribes requirements and monitoring of waste discharges at an existing facility, with negligible or no expansion of its existing use, is exempt from the procedural requirements of the California Environmental Quality Act (CEQA) (Pub. Res. Code, § 21000 et seq.) pursuant to California Code of Regulations, title 14, section 15301.
70. To the extent that the construction of any new irrigation systems, and/or surface impoundments are authorized under this Order, such features involve minor alterations to land, authorization of which is exempt from CEQA pursuant to California Code of Regulations, title 14, section 15304.

Other Regulatory Considerations

71. In compliance with Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This order promotes that policy by requiring discharges to meet maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use.

72. The wastewater discharges authorized under this Order, and the associated operation of treatment ponds (as described herein), are exempt from the prescriptive requirements set forth in California Code of Regulations, title 27, section 20000 et seq. (See Cal. Code Regs., tit. 27, § 20090, subd. (a, b, c).)

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

(1) the applicable RWQCB has issued WDRs, reclamation requirements, or waived such issuance;

(2) the discharge is in compliance with the applicable water quality control plan; and

(3) the wastewater does not need to be managed according to Chapter 11, Division 4.5, Title 22 of this code as a hazardous waste.

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

73. The discharge authorized herein, and the treatment and storage facilities associated with the discharge, are exempt from the requirements of Title 27 as follows:

- a. The current unlined wastewater ponds, future aerated ponds and LAAs are exempt pursuant to Title 27, section 20090(b) because they are discharges of wastewater to land and:
- i. The Central Valley Water Board is issuing WDRs;
 - ii. This Order prescribes requirements that will ensure compliance with the Basin Plan; and
 - iii. The wastewater discharged to the LAAs does not need to be managed as hazardous waste.
- b. Discharge of food processing residual solids to the LAAs is exempt pursuant to Title 27, section 20090(f) because it constitutes use of nonhazardous decomposable waste as a soil amendment and this Order requires implementation of applicable best management practices.

74. Water Code section 13267(b)(1) states:

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

The technical reports required by this Order and the attached Monitoring and Reporting Program **R5-2024-XXXX** are necessary to ensure compliance with these waste discharge requirements. The Discharger owns and operates the facility that discharges the waste subject to this Order.

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

Water Code Section 13149.2

76. These WDRs regulate a facility that may impact a disadvantaged community and includes an alternative compliance path that allows the Discharger time to come into compliance with water quality objectives (i.e., nitrogen and salinity). The Discharger will implement tasks to comply with the Nitrate Control Program to ensure safe drinking water for affected person(s). In addition, the Discharger has selected the Alternative Salinity Permitting Approach for the Salt Control Program, which provides an alternative approach for compliance with salinity limits through implementation of specific requirements (i.e., support facilitation and completion of the Salinity P&O Study). The Central Valley Water Board has satisfied the outreach requirements set forth in Water Code section 189.7 by conducting outreach in affected disadvantaged and tribal communities through its notice and comment procedures. Pursuant to Water Code section 13149.2, and as discussed in the following findings, the Central Valley Water Board reviewed readily available information and information raised by interested persons concerning anticipated water quality impacts in disadvantaged communities

resulting from adoption of this Order. The Board also considered environmental justice concerns within the Board's authority previously raised by interested persons with regard to those impacts.

Human Right to Water

77. Pursuant to 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 General Order promotes this policy by including process wastewater discharge specifications and prohibitions and requiring that discharges not cause or contribute to exceedances of water quality objectives that have been developed to protect municipal and domestic water supplies.

Threat-Complexity Rating

78. For the purposes of California Code of Regulations, title 23 (Title 23), section 2200, the Facility has a threat-complexity rating of **2-B**.
- a. Threat Category "2" reflects waste discharges that can impair receiving water beneficial uses, cause short-term water quality objective violations, cause secondary drinking water standard violations, and cause nuisances.
 - b. Complexity Category "B" reflects any discharger not included in Category A, with either (1) physical, chemical or biological treatment systems (except for septic systems with subsurface disposal), or (2) any Class II or Class III WMUs.

Scope of Order

79. This Order is strictly limited in scope to those waste discharges, activities and processes described and expressly authorized herein.
80. Pursuant to Water Code section 13264, subdivision (a), the Dischargers are prohibited from initiating the discharge of new wastes (i.e., other than those described herein), or making material changes to the character, volume and timing of waste discharges authorized herein, without filing a new Report of Waste Discharge (ROWD) per Water Code section 13260.
81. Failure to file a new ROWD before initiating material changes to the character, volume or timing of discharges authorized herein, shall constitute an independent violation of these WDRs.
82. This Order is also strictly limited in applicability to those individuals and/or entities specifically designated herein as "Dischargers," subject only to the discretion to designate or substitute new parties in accordance with this Order.

Procedural Matters

83. All of the above information, as well as the information contained in the attached Information Sheet (incorporated herein), was considered by the Central Valley Water Board in prescribing the WDRs set forth below.
84. The Discharger, interested agencies and other interested persons were notified of the Central Valley Water Board's intent to prescribe the WDRs in this Order, and provided an opportunity to submit their written views and recommendations at a public hearing. (See Wat. Code, § 13167.5.)
85. At a public meeting, the Central Valley Water Board heard and considered all comments pertaining to the discharges regulated under this Order.
86. The Central Valley Water Board will review and revise the WDRs in this Order as necessary.

REQUIREMENTS

It is Hereby Ordered, pursuant to Water Code sections 13263 and 13267, that WDRs Order R5-2017-0019 is rescinded (except for enforcement purposes); and that the Discharger and their agents, employees and successors shall comply with the following.

A. Standard Provisions

Except as expressly provided herein, the Dischargers shall comply with the Standard Provisions and Reporting Requirements dated 1 March 1991 (SPRRs), which are incorporated herein.

B. Discharge Prohibitions

Waste classified as "hazardous" (per Cal. Code Regs., tit. 22, §66261.1 et seq.), shall not be discharged at the Facility under any circumstance.

Waste constituents shall not be discharged or otherwise released from the Facility (including during treatment and storage activities) in a manner that results in:

1. Violations of the Groundwater Limitations of this Order; or
2. Conditions of "nuisance" or "pollution," as defined per Water Code section 13050.

Discharge of wastes other than process wastewater from Pacific Coast Producers, Oroville Processing Facility at the location and in the manner described in the Findings and authorized herein is prohibited.

Except as provided in Section E.2 of the SPRRs, incorporated herein, process wastewater shall not bypass any part of the storage, conveyance, or disposal systems.

C. Flow Limitation

1. Effluent flows from the storage pond shall not exceed a total annual flow of 360 MG.

D. Effluent Limitations

1. To Comply with the Salt Control Program, the Discharger has selected the Alternative Salinity Permitting Approach (i.e., participation in the P&O Study), therefore, as discussed in Finding 63, these WDRs establish a performance-based effluent limitation for electrical conductivity.

Table 7 – Effluent Limitation

Constituent	Limit	Basis for Compliance Determination
Fixed Dissolved Solids	928 mg/L	Annual Average

E. Mass Loading Limitations

1. The blend of wastewater, storm water, and supplemental irrigation water applied to the LAAs shall not exceed the following BOD mass loading limitation.

Table 8 – BOD Mass Loading Limitation

Constituent	Limit
BOD Mass Loading	242 lbs./acre/day

2. The Central Valley Water Board considers this operation to be in organic loading Risk Category 3 (BOD5 > 100 lbs./acre/day) as outline in the California League of Food Processors' *Manual of Good Practice* recommendations allowing a 50 percent increase in the BOD loading rates where sprinkler irrigation is used.
3. Compliance with the BOD Mass Loading Limit shall be determined as specified below:

- a. The mass of BOD applied to each LAA on a daily basis shall be calculated using the following formula:

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

Where:

M = mass of BOD applied to an LAA in lbs./acre/day

C = concentration of BOD in mg/L based on most recent monitoring result (3-week running average)

V = total volume of wastewater applied to the LAA during the irrigation cycle, in millions of gallons

A = area of the LAA irrigated in acres

T = irrigation cycle length in days (from the first day water was applied to the last day of the drying time)

8.345 = unit conversion factor

4. Total nitrogen mass loading limitation is based on crops grown in a given year, Table 10 below indicates the total nitrogen mass loading limitation based on the various crops grown at the LAA. The total nitrogen loading limit is based on the acreage where the specific crops grown if the Discharger plants more than one type a crop in a year.

Table 9 – Total Nitrogen Mass Loading Limitation

Crop	Limit
Native Grasses	205 lbs./acre/year
Bermuda Grass	475 lbs./acre/year
Pasture Grasses	205 lbs./acre/year

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

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

Where:

M = mass of nitrogen applied to LAA in lbs./acre/year

C_i = monthly average concentration of total nitrogen for month i in mg/L

V_i = volume of wastewater applied to the LAA during calendar month i in million gallons

A = area of the LAA irrigated in acres

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

M_x = nitrogen mass from other sources (e.g., fertilizer and compost) in pounds

8.345 = unit conversion factor

F. Discharge Specifications

The discharge shall remain within the permitted waste treatment/ containment structures.

1. The Discharger shall operate all systems and equipment to maintain compliance with WDRs.
2. All conveyance, treatment, storage, and disposal systems shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
3. Objectionable odors shall not be perceivable beyond the limits of the property where the waste is generated, treated, and/or discharged at an intensity that creates or threatens to create nuisance conditions.
4. As a means of ensuring compliance with Discharge Specification F.3, the dissolved oxygen (DO) content in the upper one foot of the process

wastewater pond shall not be less than 1.0 mg/L for three consecutive weekly sampling events.

5. The Discharger shall design, construct, operate, and maintain all ponds sufficiently to protect the integrity of containment dams and berms and prevent overtopping and/or structural failure. The operating freeboard in the process wastewater holding pond shall never be less than two feet (measured vertically from the lowest possible point of overflow).
6. Wastewater treatment, storage, and disposal ponds or structures shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, and ancillary inflow and infiltration during the winter while ensuring continuous compliance with all requirements of this Order. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.
7. On or about 1 October of each year, available capacity shall at least equal the volume necessary to comply with Discharge Specifications F.5 and F.6.
8. All ponds and open containment structures shall be managed to prevent breeding of mosquitoes. Specifically:
 - a. An erosion control program shall be implemented to ensure that small coves and irregularities are not created around the perimeter of the water surface.
 - b. Weeds shall be minimized through control of water depth, harvesting, or herbicides.
 - c. Dead algae, vegetation, and debris shall not accumulate on the water surface.
 - d. The Discharger shall consult and coordinate with the local Mosquito Abatement District to minimize the potential for mosquito breeding as needed to supplement the above measures.
9. Newly constructed or rehabilitated berms or levees (excluding internal berms that separate ponds or control the flow of water within a pond) shall be designed and constructed under the supervision of a California Registered Civil Engineer.
10. Wastewater contained in any unlined pond shall not have a pH less than 6.0 or greater than 9.0.

11. The Discharger shall monitor sludge accumulation in the wastewater treatment/storage ponds at least every five years upon adoption of this Order and shall periodically remove sludge as necessary to maintain adequate treatment and storage capacity.
12. Storage of residual solids in areas not equipped with means to prevent storm water infiltration is prohibited.

G. Groundwater Limitations

Release of waste constituents from any portion of the Facility shall not cause or contribute to groundwater containing constituent concentrations in excess of the concentrations specified below or in excess of background groundwater quality, whichever is greater:

1. Contain constituents in concentrations that exceed either the Primary or Secondary MCLs established in Title 22 of the California Code of Regulations, excluding salinity.
2. Contain taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses.

H. Solids Disposal Specifications

1. For the purpose of this Order, residual solids include the solid, semisolid, and liquid organic matter removed during the screening of wastewater.
2. Residual solids shall be removed from screens, vaults, and ponds as needed to ensure optimal operation, prevent nuisance conditions, and maintain adequate storage capacity.
3. Any handling and storage of residual solids 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.
4. If removed from the site, residual solids shall be disposed of in a manner approved by the Executive Officer and consistent with Title 27, division 2. Removal for reuse as animal feed, biofuel feedstock, or land disposal at facilities (i.e., landfills, composting facilities, soil amendment sites operated in accordance with valid waste discharge requirements issued by a Regional Water Board) will satisfy this specification.

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

I. Provisions

1. The following reports shall be submitted pursuant to Water Code section 13267 and shall be prepared as described in Provision H.5:
 - a. **By 1 June 2025**, the Discharger shall submit a *Groundwater Monitoring Well Installation Workplan* that proposes the installation of additional monitoring wells to ensure adequate monitoring upgradient and downgradient the unlined pond as well as the LAA. The workplan shall be prepared in accordance with, and include the items listed in, the first section of Attachment D: "Requirements for Monitoring Well Installation Workplans and Monitoring Well Installation Reports", which is attached hereto and made part of this Order by reference. The groundwater monitoring wells shall be designed to yield samples representative of the uppermost portion of the first aquifer underlying the ponds and LAA.
 - b. By three months following the approval of the above workplan, the Discharger shall submit a *Groundwater Monitoring Well Installation Report* for any new groundwater monitoring wells constructed to comply with Provision I.1.a. The report shall be prepared in accordance with, and including the items listed in, the second section of Attachment D: "Monitoring Well Workplan and Monitoring Well Installation Report Guidance", which is attached hereto and made part of this Order by reference. The report shall describe the installation and development of all new monitoring wells and explain any deviation from the approved workplan.
 - c. Once two years of quarterly groundwater monitoring have been completed for the new monitoring wells, the Discharger shall submit a *Background Groundwater Quality Study*. For each groundwater monitoring parameter/constituent identified in the MRP, the report shall present a summary of monitoring data and calculation of the concentration in background monitoring wells. Determination of background quality shall be made using the methods described in Title 27 CCR, Section 20415(e)(10), and shall be based on data from at least eight consecutive quarterly (or more frequent) groundwater monitoring events. For each monitoring parameter/constituent, the report shall compare the calculated background concentration with the interim numeric limitations set forth in Groundwater Limitation (Section G). Where background

concentrations are statistically greater than the interim limitations specified in Groundwater Limitation (Section G), the report shall recommend final groundwater limitations which comply with Resolution No. 68-16 for the waste constituents listed therein. Subsequent use of a concentration as a final groundwater limitation will be subject to the discretion of the Central Valley Water Board.

If the *Background Groundwater Quality Study* shows that the discharge of waste is causing groundwater to contain waste constituents (other than electrical conductivity, total dissolved solids, sodium and chloride) in concentrations statistically greater than water quality objectives, within three months following the Background Groundwater Quality Study, the Discharger shall submit a work plan and timeline for taking measures to bring groundwater quality to within the water quality objectives.

2. The Discharger shall comply with the separately issued MRP R5-2024-XXXX, and any revisions thereto as ordered by the Executive Officer. The submittal dates of Discharger self-monitoring reports shall be no later than the submittal date specified in the MRP.
3. A copy of this Order (including Information Sheet, Attachments and SPRRs) and the MRP, shall be kept at the Facility for reference by operating personnel. Key operating personnel shall be familiar with their contents.
4. The Discharger shall comply with the Basin Plan amendments adopted in Resolution R5-2018-0034 incorporating new programs (Salt and Nitrate Control Program) for addressing ongoing salt and nitrate accumulation in the Central Valley developed as part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative.

In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans for investigations and studies, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall bear the professional's signature and stamp.

The Discharger shall submit the technical reports and work plans required by this Order for consideration by the Executive Officer and incorporate

comments the Executive Officer may have in a timely manner, as appropriate. Unless expressly stated otherwise in this Order, the Discharger shall proceed with all work required by the foregoing provisions by the due dates specified.

5. A discharger whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment, collection, and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in four years, the discharger shall notify the Central Valley Water Board by 31 January.

The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports. On or before each report due date, the Discharger shall submit the specified document to the Central Valley Water Board or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, then the Discharger shall state the reasons for such noncompliance and provide an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board in writing when it returns to compliance with the time schedule. Violations may result in enforcement action, including Central Valley Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the Discharger when the operation is necessary to achieve compliance with the conditions of this Order.

The Discharger shall use the best practicable cost-effective control technique(s) including proper operation and maintenance, to comply with this Order.

As described in the SPRRs, the Discharger shall report promptly to the Central Valley Water Board any material change or proposed change in the character, location, or volume of the discharge.

In the event of any change in control or ownership of the WWTF, the Discharger must notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board.

To assume operation as Discharger under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Central Valley Water Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision B.3 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the Water Code. If approved by the Executive Officer, the transfer request will be submitted to the Central Valley Water Board for its consideration of transferring the ownership of this Order at one of its regularly scheduled meetings.

The Central Valley Water Board will review this Order periodically and will revise requirements when necessary.

ENFORCEMENT

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.

ADMINISTRATIVE REVIEW

Any person aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. The State Water Board must receive the petition by 5:00 p.m. on the 30th day after the date of this Order; if the 30th day 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](#) are available on the Internet (at the address below) and will be provided upon request.
(http://www.waterboards.ca.gov/public_notices/petitions/water_quality)

ATTACHMENTS

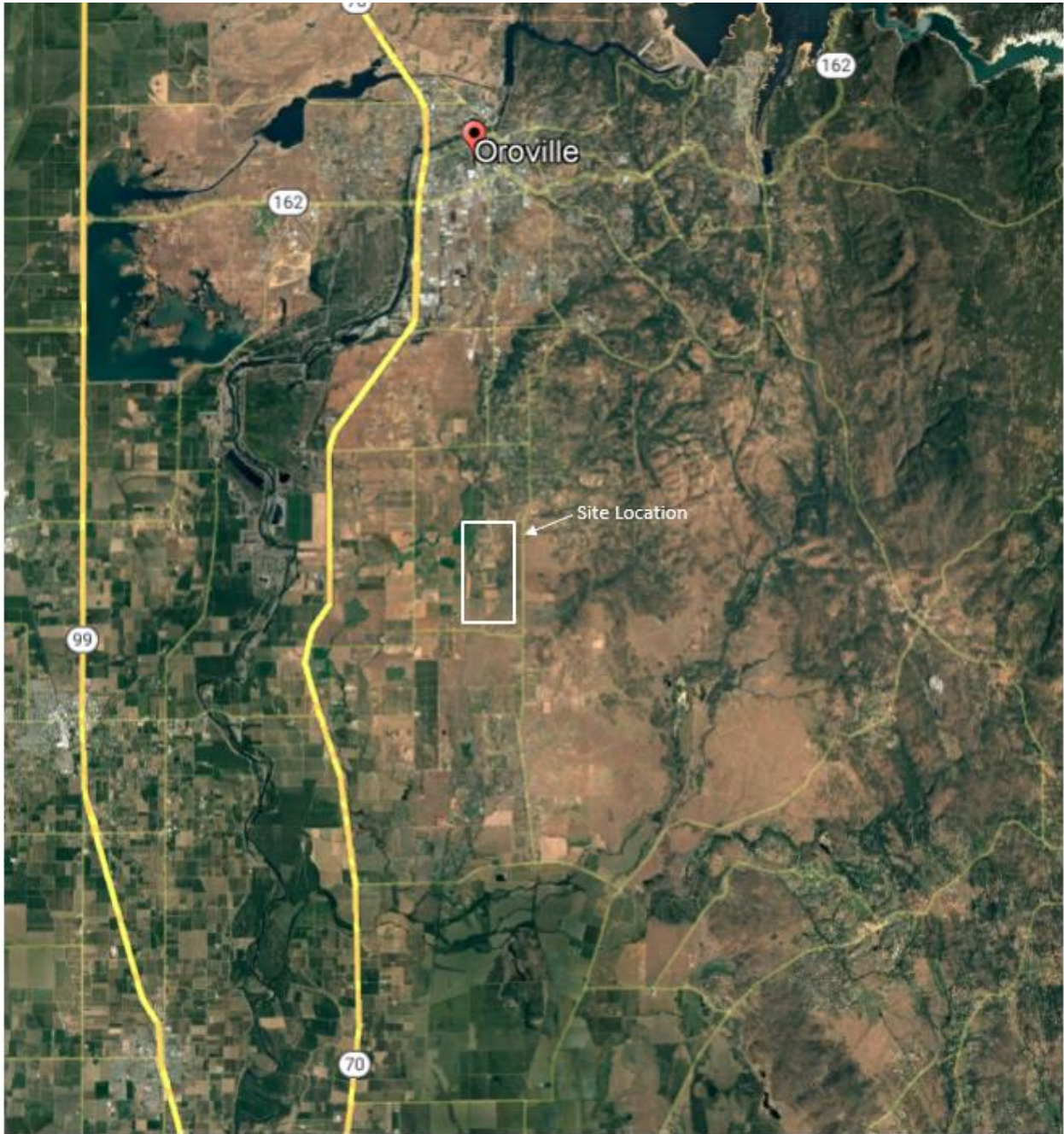
ATTACHMENT A — SITE LOCATION MAP

ATTACHMENT B — FACILITY, PIPELINE, AND LAA OVERVIEW MAP

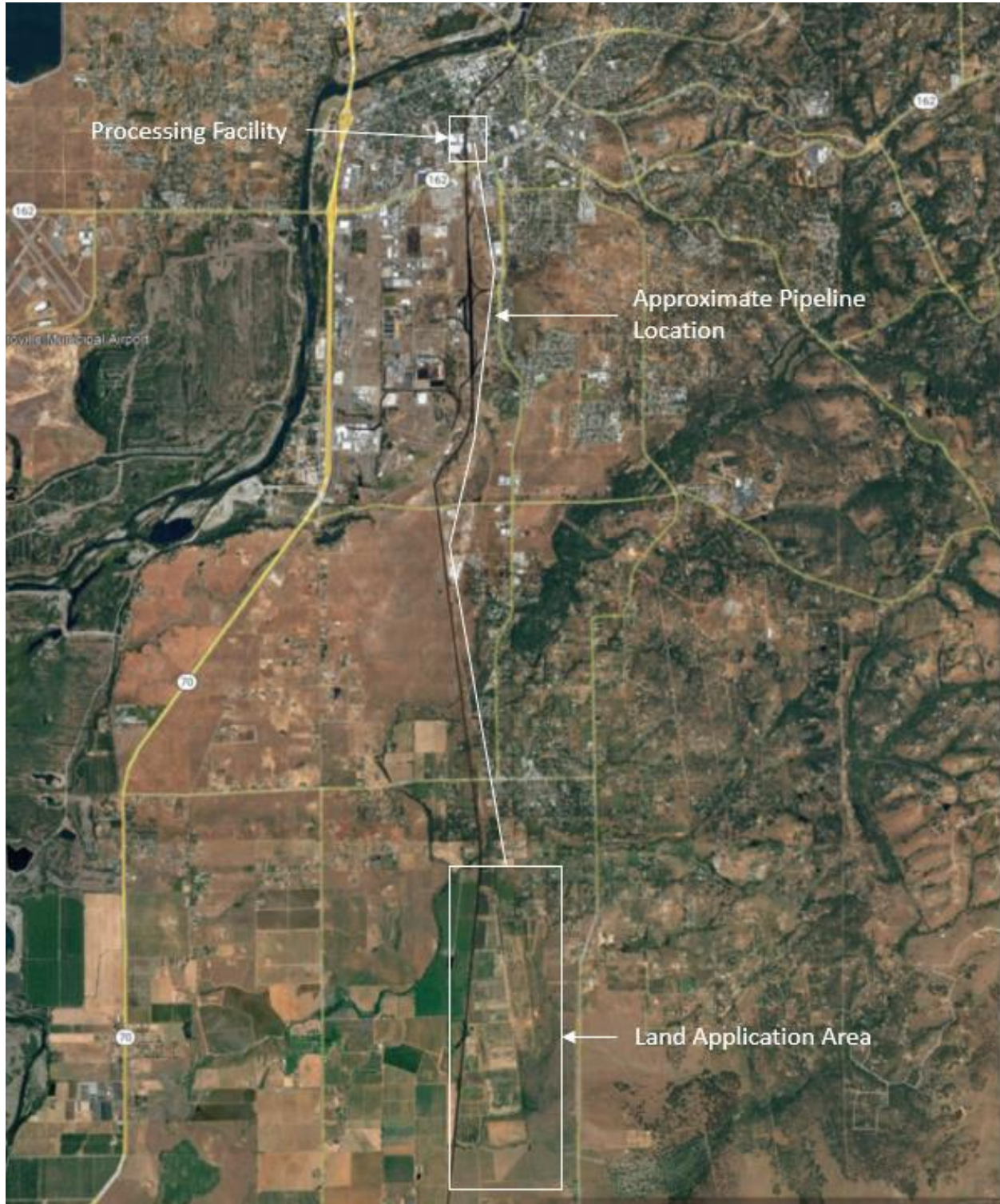
ATTACHMENT C — LAND APPLICATION AREA MAP

**ATTACHMENT D – Requirements for Monitoring Well Installation Workplans and
Monitoring Well Installation Reports
Information Sheet**

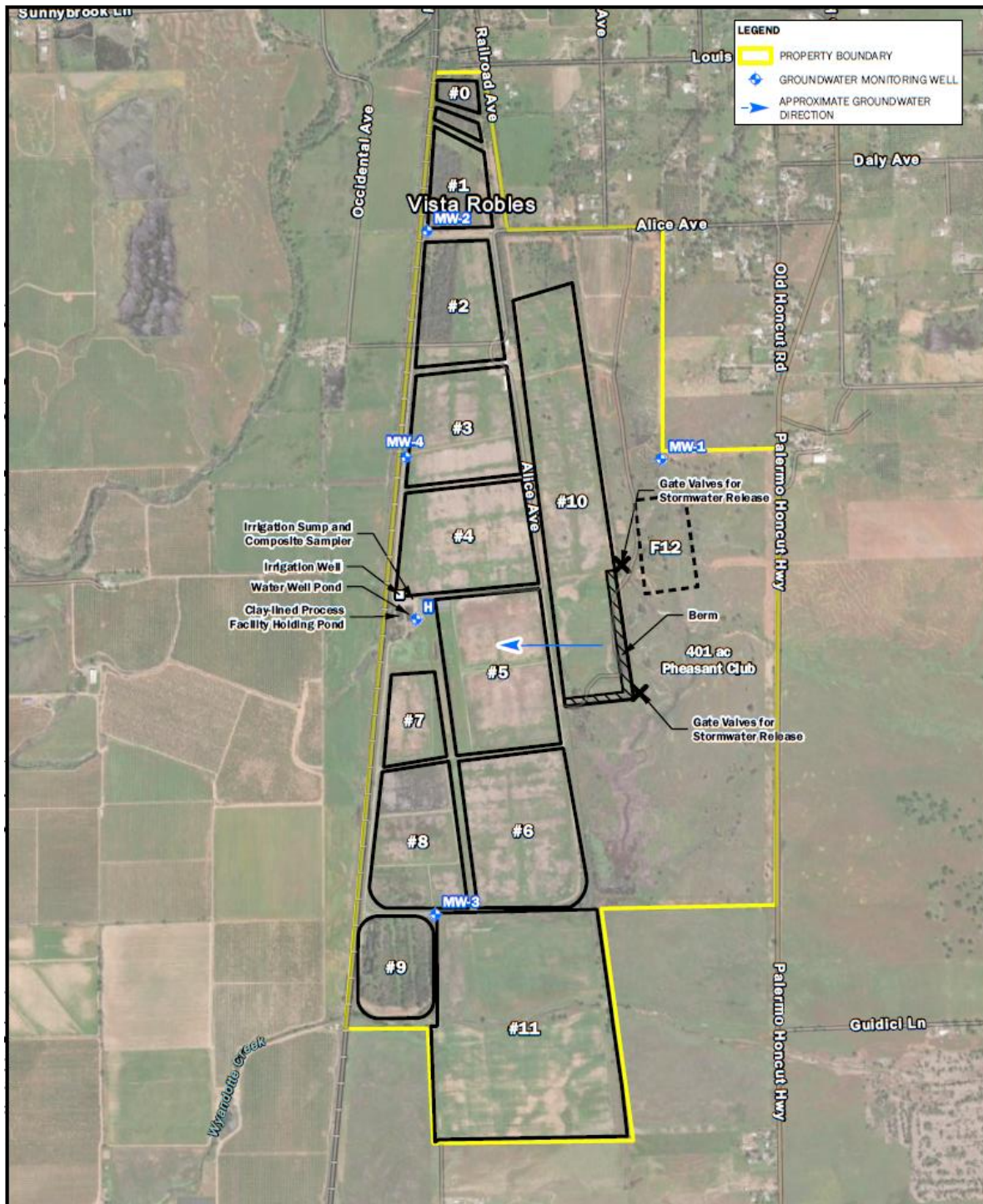
ATTACHMENT A — SITE LOCATION MAP



ATTACHMENT B — FACILITY, PIPELINE, AND LAA OVERVIEW MAP



ATTACHMENT C — LAND APPLICATION AREA MAP



PACIFIC COAST PRODUCERS,
 OROVILLE, CALIFORNIA

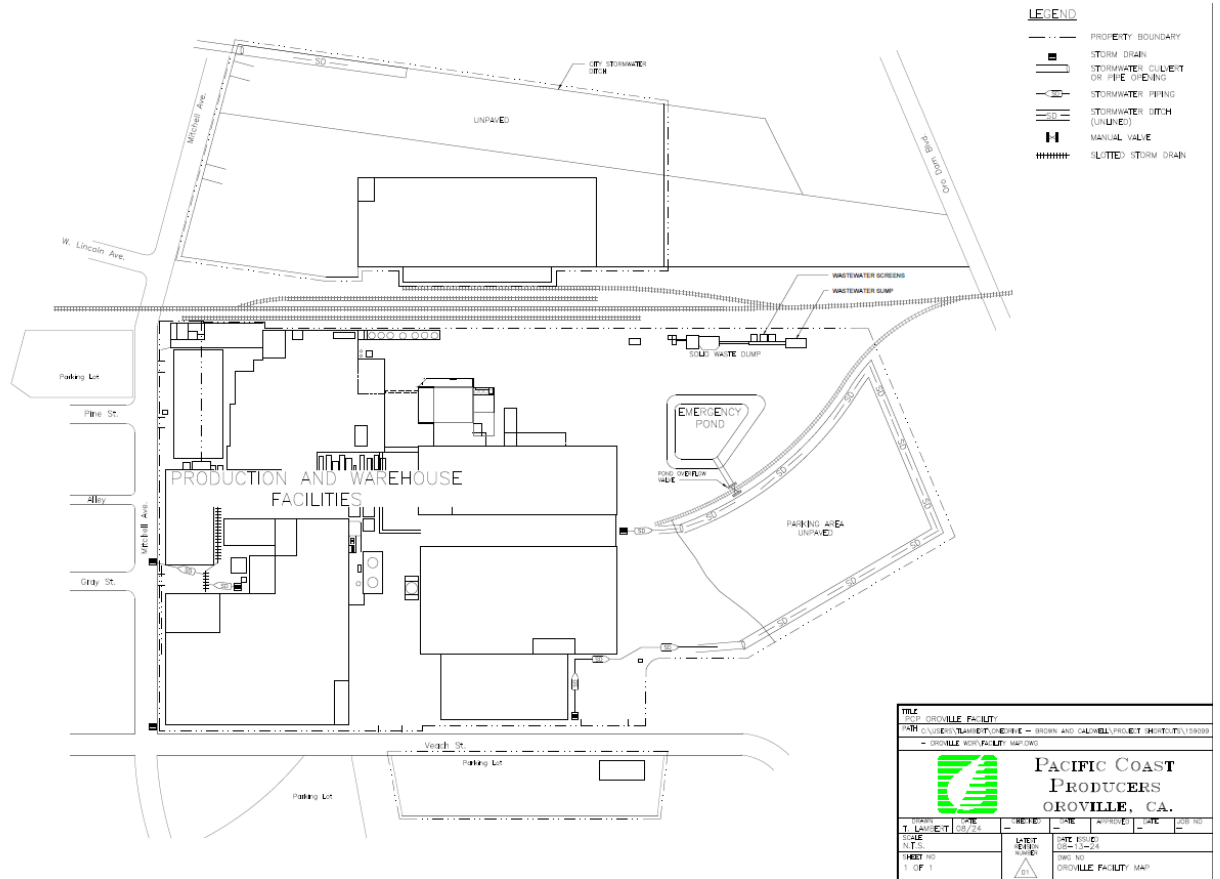
DATE: AUGUST 2024
 PROJECT: 159099

Notes:
 Aerial photo: ESRI & Affiliates, 2023
 Map features are approximate only



**LAND APPLICATION
 AREA SITE MAP**

ATTACHMENT D – PRODUCTION FACILITY MAP



ATTACHMENT E – REQUIREMENTS FOR MONITORING WELL INSTALLATION WORKPLANS AND MONITORING WELL INSTALLATION REPORTS

Prior to installation of groundwater monitoring wells, the Discharger shall submit a workplan containing, at a minimum, the information listed in Section 1, below. Wells may be installed after staff approves the workplan. Upon installation of the monitoring wells, the Discharger shall submit a well installation report which includes the information contained in Section 2, below. All workplans and reports must be prepared under the direction of, and signed by, a registered geologist or civil engineer licensed by the State of California.

SECTION 1 - MONITORING WELL INSTALLATION WORKPLAN AND GROUNDWATER SAMPLING AND ANALYSIS PLAN

The monitoring well installation workplan shall contain the following minimum information:

A. General Information:

- Purpose of the well installation project
- Brief description of local geologic and hydrogeologic conditions
- Proposed monitoring well locations and rationale for well locations
- Topographic map showing facility location, roads, and surface water bodies
- Large scaled site map showing all existing on-site wells, proposed wells, surface drainage courses, surface water bodies, buildings, waste handling facilities, utilities, and major physical and man-made features

B. Drilling Details:

- On-site supervision of drilling and well installation activities
- Description of drilling equipment and techniques
- Equipment decontamination procedures
- Soil sampling intervals (if appropriate) and logging methods

C. Monitoring Well Design (in narrative and/or graphic form):

- Diagram of proposed well construction details

- Borehole diameter
- Casing and screen material, diameter, and centralizer spacing (if needed)
- Type of well caps (bottom cap either screw on or secured with stainless steel screws)
- Anticipated depth of well, length of well casing, and length and position of perforated interval
- Thickness, position and composition of surface seal, sanitary seal, and sand pack
- Anticipated screen slot size and filter pack

D. Well Development (not to be performed until at least 48 hours after sanitary seal placement):

- Method of development to be used (i.e., surge, bail, pump, etc.)
- Parameters to be monitored during development and record keeping technique
- Method of determining when development is complete
- Disposal of development water

E. Well Survey (precision of vertical survey data shall be at least 0.01 foot):

- Identify the Licensed Land Surveyor or Civil Engineer that will perform the survey
- Datum for survey measurements
- List well features to be surveyed (i.e. top of casing, horizontal and vertical coordinates, etc.)
- Schedule for Completion of Work

APPENDIX: GROUNDWATER SAMPLING AND ANALYSIS PLAN (SAP)

The Groundwater SAP shall be included as an appendix to the workplan and shall be utilized as a guidance document that is referred to by individuals responsible for conducting groundwater monitoring and sampling activities.

- Provide a detailed written description of standard operating procedures for the following:
 - Equipment to be used during sampling
 - Equipment decontamination procedures
 - Water level measurement procedures
 - Well purging (include a discussion of procedures to follow if three casing volumes cannot be purged)
 - Monitoring and record keeping during water level measurement and well purging (include copies of record keeping logs to be used)
 - Purge water disposal
 - Analytical methods and required reporting limits
 - Sample containers and preservatives
 - Sampling
 - General sampling techniques
 - Record keeping during sampling (include copies of record keeping logs to be used)
 - QA/QC samples
 - Chain of Custody
 - Sample handling and transport

SECTION 2 - MONITORING WELL INSTALLATION REPORT

The monitoring well installation report must provide the information listed below. In addition, the report must also clearly identify, describe, and justify any deviations from the approved workplan.

A. General Information:

- Purpose of the well installation project
- Brief description of local geologic and hydrogeologic conditions encountered during installation of the wells

- Number of monitoring wells installed and copies of County Well Construction Permits
- Topographic map showing facility location, roads, surface water bodies
- Scaled site map showing all previously existing wells, newly installed wells, surface water bodies, buildings, waste handling facilities, utilities, and other major physical and man-made features.

B. Drilling Details (in narrative and/or graphic form):

- On-site supervision of drilling and well installation activities
- Drilling contractor and driller's name
- Description of drilling equipment and techniques
- Equipment decontamination procedures
- Soil sampling intervals and logging methods
- Well boring log
- Well boring number and date drilled
- Borehole diameter and total depth
- Total depth of open hole (same as total depth drilled if no caving or back-grouting occurs)
- Depth to first encountered groundwater and stabilized groundwater depth
- Detailed description of soils encountered, using the Unified Soil Classification System

C. Well Construction Details (in narrative and/or graphic form):

- Well construction diagram, including:
- Monitoring well number and date constructed
- Casing and screen material, diameter, and centralizer spacing (if needed)
- Length of well casing, and length and position of perforated interval

- Thickness, position and composition of surface seal, sanitary seal, and sand pack
- Type of well caps (bottom cap either screw on or secured with stainless steel screws)

E. Well Development:

- Date(s) and method of development
- How well development completion was determined
- Volume of water purged from well and method of development water disposal
- Field notes from well development should be included in report

F. Well Survey (survey the top rim of the well casing with the cap removed):

- Identify the coordinate system and datum for survey measurements
- Describe the measuring points (i.e. ground surface, top of casing, etc.)
- Present the well survey report data in a table
- Include the Registered Engineer or Licensed Surveyor's report and field notes in appendix.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

WASTE DISCHARGE REQUIREMENTS ORDER R5-2024-XXXX
FOR
PACIFIC COAST PRODUCERS INC.
OROVILLE PROCESSING FACILITY AND PALERMO LAND APPLICATION AREA
BUTTE COUNTY

INFORMATION SHEET

Background

Pacific Coast Producers (PCP) owns and operates a fruit processing facility (Facility) in Oroville, Butte County, and discharges untreated process wastewater to an approximately 409-acre land application area (LAA) located in Palermo, approximately 6.5-miles southwest of the Facility. Current WDRs Order R5-2017-0023 and previous Order R5-2003-0045 allows up to 650,000 gpd from 1 October 15 November, 250,000 gpd from 16 November to 30 June, and 3 mgd from 1 July to 30 September of process wastewater to the LAA, these flows and dates were set in Order R5-2003-0045 to reflect what is being produced during those months and associated process wastewater flow from those products.

Surface soils at the LAA are approximately one foot deep and have been classified as primarily Perkins Gravelly Loam (Fields 0-4) and Kimball Loam (Fields 5 to 8). Beneath the topsoil is a discontinuous semi-consolidated to consolidated hardpan. Percolation rates range from 0 to 7.5 in/hr with an area-weighted mean of 2.44 in/hr.

Facility Discharge

The Facility produces canned fruit, including peaches, pears, and fruit cocktail: mixed fruit in single serve plastic bowls, with fruit and syrup or fruit and gel combinations. The cannery employs 180 people full-time year-round, and approximately 1,400 during peak production season. The Facility has discharged between 76-160 million gallons annually from 2017-2021.

Process wastewater is generated during fruit washing and peeling, equipment sanitation, product transfers within the facility, and boilers. Solids are removed from the wastewater prior to discharge into a sump, where process wastewater and approximately 80% of stormwater from the facility are transported from the plant to the land application area in Palermo by means of a 6 ½ mile pipeline, where it is discharged into an unlined, non-aerated process wastewater holding pond.

The Facility was issued an industrial stormwater permit for discharge of approximately 20% of the stormwater from the processing Facility. The processing Facility sits on

approximately 21-acres and is approximately 75% covered by pavement or buildings. Stormwater is generally not comingled with wastewater, as processing usually occurs before the rainy season. If stormwater and wastewater are comingled the comingled water is discharged to the process wastewater holding pond. If stormwater contains no process wastewater stormwater is discharged directly to Field 8. For final disposal, wastewater is pumped from the process wastewater holding pond and applied to an approximately 493-acre land application area, which consists of 11 fields. Wastewater is applied employing spray irrigation. Flood irrigation is used in the event of power outage or equipment failure. According to current WDRs and the 2018 ROWD, the land application area has two additional unlined ponds, one is used as emergency storage and the other is used for freshwater storage. The Facility has no treatment for process wastewater.

The current land application area is divided into 12 fields, separated by levees, dikes, and roads, and plumbed together through a series of gates, culverts, and pumps. Various grasses are grown on the LAA. An annual harvest occurs once during the spring. The Discharger plans to add a second harvest during the fall. The Discharger currently implements a plan to manage the application of process wastewater during the rainy season as follows.

During the process season, when significant precipitation is not forecasted process wastewater is applied to all fields. During the non-process season, when significant precipitation is not forecasted process wastewater is applied to Fields 0-4; during rainy periods, process wastewater is applied to Fields 5, 7, or 8, which are not located in the 100-year floodplain. A 2.5-million-gallon emergency storage pond is in Field 9. The storage pond is used to manage stormwater runoff from Fields 5, 6, 7, and 8, and to hold process wastewater during periods of heavy rainfall.

Groundwater Considerations

Groundwater conditions are discussed in Findings 30 to 32 of the Order.

Antidegradation

Antidegradation analysis and conclusions are discussed in Findings 64 to 69 of the Order.

Discharge Prohibitions, Effluent Limitations, Discharge Specifications, And Provisions

The Order sets a maximum annual flow limitation of 360 million gallons for the Facility's discharge to the LAA. The Order also specifies effluent and loading limitations, as well as participation in the Prioritization and Optimization Plan for the Salt Control Program.

Monitoring Requirements

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

Salt And Nitrate Control Programs Regulatory Considerations

On 31 May 2018, the Central Valley Water Board adopted Basin Plan amendments incorporating the Salt Control Program and Nitrate Control Program. The State Water Resources Control Board (State Water Board) conditionally approved the amendments on 16 October 2019 (State Water Board Resolution 2019-0057). The effective date of the Basin Plan amendments was 17 January 2020 (Office of Administrative Law (OAL) Matter No. 2019-1203-03). For those components subject to United States Environmental Protection Agency (USEPA) approval, the effective date was 2 November 2020. On 10 December 2020, the Central Valley Water Board adopted revisions to the Basin Plan amendments (Resolution R5-2020-0057). The State Water Board conditionally approved these revisions on 1 June 2021 (State Water Board Resolution 2021-0019). The effective date of the revisions to the Basin Plan amendments was 10 November 2021 (OAL Matter No. 2021-0929-05S). The overarching goals and priorities of these programs are to (1) ensure safe drinking water supply; (2) reduce salt and nitrate loading so that ongoing discharges neither threaten to degrade high quality waters absent findings by the Central Valley Water Board nor cause or contribute to exceedances of WQOs; and (3) implement long-term, managed restoration of impaired water bodies.

For the Salt Control Program, a Notice to Comply for the Salt Control Program was issued to Pacific Coast Producers (CV-SALTS ID 2347) on 5 January 2021. On 1 April 2021, the Discharger paid the fee payment to join the P&O Study.

Reopener

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

Legal Effect Of Rescission Of Prior WDRs Or Orders On Existing Violations

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