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CENTRAL VALLEY REGION

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WASTE DISCHARGE REQUIREMENTS ORDER R5-2025-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 February 2025

PATRICK PULUPA,
Executive Officer

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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 Waste Discharge Requirements (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. ATTACHMENT C — LAA MAP

    d. ATTACHMENT D — PRODUCTION FACILTIY MAP

    e. ATTACHMENT E — REQUIREMENTS FOR MONITORING WELL INSTALLATION WORKPLANS AND MONITORING WELL INSTALLATION REPORTS

    f. Standard Provisions & Reporting Requirements dated 1 March 1991 (SPRRs).

    g. Information Sheet.

5. Also attached is **Monitoring and Reporting Program Order** R5-2025-XXXX (MRP), which requires monitoring and reporting for discharges regulated under these WDRs.

Regulatory History

6. 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 limitations during the process season from 1 July to 15 October and biochemical oxygen demand (BOD) and fixed dissolved solids (FDS) loading limitations contained in the current WDRs.

7. 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, which 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 flow-weighted average concentration limit for FDS, from 576 to 1,100 milligrams per liter (mg/L). 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, which incorporates the Discharger's 2019 and 2020 requests, was deemed complete on 10 August 2021.

Existing Facility and Discharge

8. 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).

9. Process wastewater is generated during fruit washing, equipment sanitation, and product transfers within the 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.

10. 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 un-lined ponds. Of the three ponds, one is the process facility holding pond, with an area of approximately 15,000 square feet and depth of approximately 13 feet; the second is an emergency storage pond; and the third is a freshwater pond, with an area of approximately 15,000 square feet and a depth of approximately 10 feet, as shown in Attachment C. Process wastewater is land applied by spray irrigation.

11. 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.

12. Water is supplied to the Facility by California Water Service Company. Domestic wastewater is discharged to the Sewerage Commission – Oroville Region Wastewater Treatment Plant.

13. The 21-acre Facility is approximately 75 percent covered by pavement or buildings. The Facility is enrolled under the State Water Resources Control Board (State Water Board) General Permit for Storm Water Discharges Associated with Industrial Activities, Order 2014-0057-DWQ (WDID 5R04I001810), which regulates its off-site discharge of approximately 20 percent of the stormwater from the Facility. Of the approximately 80 percent of stormwater that does not flow off-site, approximately 30 percent infiltrates onsite, and the remaining approximately 50 percent 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.

14. The current LAA is divided into eleven fields, which are 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.

15. Caustic peeling (lye), which is utilized for peaches and pears at the Cannery, has been a primary contributor to salinity and sodium levels in Facility effluent. In 2014 the Facility switched from sodium hydroxide to potassium hydroxide, which has reduced the sodium loading but increased potassium loading.

16. Water softening agent use at the Cannery is estimated at 11,000 lb of salt per year. The Cannery continually monitors softeners to ensure that they are in good operating condition to run as efficiently as possible.

17. 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 lb of salts per year to process wastewater.

18. 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

19. 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, Fields 11A, 11B, and 11C, which total approximately 84 acres, is zoned Agriculture (AG-40), and is 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 of the LAA to 493 acres will reduce overall constituent areal loading rates. The current site has 409 acres of irrigable land with a loading capacity of 330 lb/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

20. Surface elevation at the site ranges from approximately 115-145 feet above mean sea level and gently slopes to the south.

21. 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, and 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 Oceanic and Atmospheric Administration (NOAA), the average annual pan evaporation is 70.78 inches at Oroville Dam, Station 6527.

22. 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).

23. According to the United States Department of Agriculture's Web Soil Survey, soils in the LAA have been classified as primarily Perkins Gravelly Loam (Fields 0 to 4), Kimball Loam (Fields 5 to 9), and Eastbiggs Loam (Fields 10 to 12). Perkins Gravelly Loam is well drained with very low runoff, Kimball Loam is well drained with low runoff, and Eastbiggs loam is somewhat poorly drained with high runoff. Percolation rates range from 0 to 1.7 in/hr..

24. 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.

25. The Facility has an unlined storage pond with a volume of 65,000 gallons that is equipped with a pump to convey process wastewater to the LAA. The storage pond is used infrequently, approximately one to two times annually. 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

26. Annual process wastewater flow rates from 2017-2022 are listed in Table 3 below. This Order revises the flow limitation established in the previous WDRs, from a seasonal limit to an annual limit. From 2017-2022, the Facility discharge ranged from 75.55 to 160.18 million gallons per year (MGY) and, in 2023, the Facility discharged 193.19 MGY. The revised flow limitation is based on the Facility's current annual flow, with a buffer to account for operational and harvest variations associated with fruit processing facilities.

Table 3 - Annual Process Wastewater Flow from 2017-2022

Year	2017	2018	2019	2020	2021	2022	2023
Flow (MG)	76	111	151	160	157	160	193

Groundwater Conditions

27. 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, respectively, with 4-inch PVC casings. In June 1994, monitoring wells G and H were installed to 40 feet deep and constructed using 2-inch diameter PVC casing.

28. The LAA 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 in the upgradient direction from the process wastewater pond, but appears to be monitoring groundwater influenced by process wastewater percolating from the pond... MW-1 through MW-4 are developed at depths of 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 below ground surface (bgs) and groundwater elevations at approximately 89.85 – 105.6 feet above mean sea level (amsl). 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 ranges from 15 to 40 feet below ground surface (99 to 110 feet amsl). 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 wastewater holding pond and not representative of mixed groundwater conditions, however, continuing to monitor MW-H provides a useful monitoring point.

29. Average groundwater quality from 2017-2022 is shown in Table 4. MW-2 has been dry since 2017, so it is excluded from the Table.

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	-
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

Statutory Authority

30. 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.*

31. Compliance with section 13263, subdivision (a), including implementation of applicable water quality control plans, is discussed in the findings below.

32. 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).)

33. This Order and its associated 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.*

34. 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

35. The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* (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, subdivision (a), WDRs must implement the applicable Basin Plan.

36. 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 2-1) 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.

37. 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.

38. The Basin Plan establishes narrative water quality objectives (WQOs) 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.

39. The Basin Plan's numeric WQO 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.

40 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 maximum contaminant levels (MCLs) specified in California Code of Regulations, title 22 (Title 22), division 4, chapter 15. 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.

41. The Basin Plan's narrative toxicity WQO 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.

42. 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 total dissolved solids (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.

43. 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.

44. 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.

45. 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.

46. 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.

47. 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 rate at which BOD 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.

48. *Pollution Abatement in the Fruit and Vegetable Industry*, published by the United States Environmental Protection Agency (U.S. EPA), cites BOD loading rates in the range of 36 to 600 lb/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.

49. The California League of Food Processors' *Manual of Good Practice for Land Application of Food Processing/Rinse Water* (*Manual of Good Practice*) proposes risk categories associated with 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.
3	> 100	> 2	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.

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.

50. 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.

51. 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.

52. The Central Valley Water Board considers this operation to be a Risk Category 2. Currently, the Discharger is unable to comply with BOD loading limit associated with Risk Category 2, however, this Order requires that the Discharger come into compliance with the loading limit outlined in Provision E.1, 150 lb/acre/day. The Discharger shall submit a work plan within six months of adoption of this Order and compliance within two years after Central Valley Water Board staff approval, Provision 1.d.

Salt and Nitrate Control Programs

53. 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 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 U.S. EPA 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.

54. 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 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

55. State Water Board Resolution 68-16,*Statement of Policy with Respect to Maintaining High Quality Waters in California* (Antidegradation Policy), 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 (BPTC) 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.

56. The Discharger has been consistently monitoring groundwater quality at the site since 1997. Determination of compliance with the Antidegradation Policy is based on comparisons to historic background water quality.

57. Constituents of concern (COCs) that have the potential to degrade groundwater include salts (primarily TDS, sodium, and chloride), organics, and dissolved metals. As shown in Table 6, MW-1 is upgradient of the Facility's discharge area and, therefore, reflects background water quality. MW-3 and MW-4 sit downgradient to portions of the LAA and MW-H sits adjacent to the wastewater pond. See Table 4 for minimum and maximum detected concentration values, as well as number of data points. See Finding 28 for additional discussion of the monitoring wells.

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	---
Manganese, Total (µg/L)	65	-	-	-	-	NA
Dissolved Manganese (µg/L)	-	0.01	ND	ND	354	50
Iron, Total (µg/L)	2719	-	-	-	-	NA
Dissolved Iron (µg/L)	-	0.6	91	0.08	184	300
Dissolved Arsenic (µg/L)	-	2.5	ND	ND	4.3	10

a. **Salinity.** The Facility's discharge of high-strength saline wastewater appears to have historically degraded groundwater quality with respect to EC, TDS, and FDS. This Order continues to authorize limited degradation with respect to salts, but to a lesser extent than under previous WDRs due to the expansion of the LAA.

b. **Dissolved Manganese.** The discharge has the potential to degrade groundwater in the vicinity of the process wastewater pond, seen at MW-H, which appears to be monitoring the radial mound of effluent percolating from the pond prior to mixing with area groundwater. The discharge's average effluent BOD concentration is 3,182 mg/L from 2017-2022; elevated organic concentrations in the process wastewater pond could lead to anoxic conditions that may cause mobilization of manganese in the groundwater. MW-H has had two exceedances of the WQO from 2017-2022.Currently, the impact to the downgradient groundwater from the process wastewater pond is unquantified, however, this Order requires the installation of a monitoring well network surrounding the process wastewater pond to ensure that the discharge is protective of groundwater quality. Once the monitoring well network is installed and monitored, if the data shows exceedances of WQOs, the Discharger will be required to make facility improvements as outlined in Provision I.1.d.

c. **Dissolved Iron.** The discharge has the potential to degrade groundwater in the vicinity of the process wastewater pond, seen at MW-H, which appears to be monitoring the radial mound of effluent percolating from the pond prior to mixing with area groundwater. The average effluent total iron concentrations from 2017-2022 is 2719 µg/L, however it is unknown if iron in the effluent is dissolved, which is the basis of the WQO. MW-H has had

one exceedance of the WQO at 300 µg/L during sampling events from 2017-2022. The discharge's average effluent BOD concentration is 3,182 mg/L from 2017-2022; elevated organic concentrations in the process wastewater pond could lead to anoxic conditions that may cause mobilization of iron in the soil to the groundwater. Currently, the impact to the downgradient groundwater from the process wastewater pond is unquantified, however, this Order requires the installation of a monitoring well network surrounding the process wastewater pond to ensure that the discharge is protective of groundwater quality. Once the monitoring well network is installed and monitored, if the data shows exceedances of WQOs, the Discharger will be required to make facility improvements as outlined in Provision I.1.d. Additionally, MW-3 sees an elevated concentration compared to background well MW-1, however, MW-3 has been non detect in all monitoring events except two, with values of 2.6 and 180 µg/L, and have not exceeded WQOs.

d. **Dissolved Arsenic.** The discharge has the potential to degrade groundwater in the vicinity of the process wastewater pond. MW-H, which appears to be monitoring the radial mound of effluent percolating from the pond prior to mixing with area groundwater, has not exceeded the WOQs in any sampling event. The discharge's average effluent BOD concentration is 3,182 mg/L from 2017-2022; elevated organic concentrations in the process wastewater pond could lead to anoxic conditions that may cause mobilization of arsenic in the groundwater. Currently, the impact to the downgradient groundwater from the process wastewater pond is unquantified, however, this Order requires the installation of a monitoring well network surrounding the process wastewater pond to ensure that the discharge is protective of groundwater quality. Once the monitoring well network is installed and monitored, if the data shows exceedances of WQOs, the Discharger will be required to make facility improvements as outlined in Provision I.1.d. There currently is no effluent data for arsenic, however, the MRP includes dissolved metals monitoring.

58. This Order requires the Discharger to implement measures to minimize or prevent degradation, which the Board has determined constitute BPTC. 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.

59. 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. Furthermore, the Discharger is participating in the regionwide P&O Study, which is intended to identify and support development and implementation of long-term salinity management and reduction measures. 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.

60. Based on the foregoing, the adoption of this Order is consistent with the Antidegradation Policy.

California Environmental Quality Act

61. The issuance of this Order, which prescribes requirements for 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 (Title 14), section 15301. This Order's authorization of an expansion of LAA acreage constitutes a minor alteration to land exempt from CEQA review pursuant to Title 14 section 15304 because those added LAA areas are already agricultural lands and no major environmental changes are anticipated therein as a result of this Order.

Other Regulatory Considerations

62. 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 MCLs designed to protect human health and ensure that water is safe for domestic use. For salinity, this Order requires compliance with the Salt Control Program. Although the Basin Plan's Exceptions Policy for Salinity allows participants in the P&O Study to obtain limited-term exceptions from the MCLs for saline constituents, this Program is consistent with the Human Right to Water Policy because its overarching management goals and priorities include long-term restoration of impacted waters.

63. The 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 (Title 27), section 20000 et seq. Wastewater discharges to the unlined wastewater ponds and LAAs are exempt pursuant to Title 27 section 20090, subdivision (b), because they are discharges of non-hazardous wastewater to land that are subject to WDRs requiring compliance with the Basin Plan. Discharge of food

processing residual solids to the LAAs is exempt pursuant to section 20090, subdivision (f), because it constitutes use of nonhazardous decomposable waste as a soil amendment and this Order requires implementation of applicable best management practices.

64. Water Code section 13267, subdivision (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 MRP are necessary to ensure compliance with these waste discharge requirements. The burden, including costs, of the reports required by this order bears a reasonable relationship to the benefits to be obtained thereby.

65. The DWR sets standards for the construction and destruction of groundwater wells (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

66. These WDRs regulate a facility that may impact a disadvantaged community and include an alternative compliance path that allows the Discharger time to come into compliance with WQOs for saline constituents. In particular, 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 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, 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.

Threat-Complexity Rating

67. For the purposes of California Code of Regulations, 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

68. This Order is strictly limited in scope to those waste discharges, activities, and processes described and expressly authorized herein.

69. Pursuant to Water Code section 13264, subdivision (a), the Discharger is prohibited from initiating the discharge of new wastes (i.e., other than those described herein), or making material changes to the character, volume, or timing of waste discharges authorized herein, without filing a new ROWD per Water Code section 13260.

70. 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.

71. This Order is strictly limited in applicability to those individuals and/or entities specifically designated herein as "Discharger(s)," subject only to the Central Valley Water Board's discretion to designate or substitute new parties in accordance with this Order.

Procedural Matters

72. All of the above information, was considered by the Central Valley Water Board in prescribing the WDRs set forth below.

73. 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.)

74. At a public meeting, the Central Valley Water Board heard and considered all comments pertaining to the discharges regulated under this Order.

75. The Central Valley Water Board will review and revise 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 Discharger shall comply with the Standard Provisions and Reporting Requirements dated 1 March 1991 (SPRRs).

B. Discharge Prohibitions

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

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

    a. Violations of the Groundwater Limitations of this Order; or

    b. Conditions of "nuisance" or "pollution," as defined per Water Code section 13050.

3. 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.

4. Except as provided in Section E.2 of the SPRRs, 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 250 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 55, 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. Pursuant to the compliance schedule detailed in Provision I.1.e. and f., 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[1]	150 lb/acre/day[2]

1. BOD loading to the LAAs, calculated as a cycle average as determined by the method described below.
2. An interim BOD loading limit of 250 lb/acre/day is in effect until Facility improvements are made as outlined in Provisions I.1.e and f.

2. 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 lb/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

3. 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 lb/acre/year
Bermuda Grass	475 lb/acre/year
Pasture Grasses	205 lb/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 lb/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 WDRs 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. Within **six months** of the adoption of this Order, the Discharger shall submit a *Groundwater Monitoring Well Installation Workplan* (Monitoring Well Workplan) that proposes the installation of additional monitoring wells to ensure adequate monitoring upgradient and downgradient from the unlined wastewater pond as well as the LAA. The Monitoring Well 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 **six months** following Central Valley Water Board staff concurrence with the above Monitoring Well Workplan, the Discharger shall complete the proposed well installation(s) and within 60-days of the well installation(s) 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*. 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 and Downgradient Groundwater Quality Study* (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 monitoring wells. Determination of background and downgradient groundwater quality shall be made using the methods described in Title 27 section 20415, subdivision (e)(10), and shall be based on

data from at least eight consecutive quarterly (or more frequent) groundwater monitoring events. This report shall also include an analysis of the process wastewater pond mounding.

d. If the Groundwater Quality Study shows that the discharge of waste is causing groundwater, as determined by concentrations in downgradient monitoring well(s), to contain waste constituents (other than electrical conductivity, total dissolved solids, sodium, and chloride) in concentrations greater than background water quality or applicable WQOs, whichever is greater, **within three months** following the Groundwater Quality Study, the Discharger shall submit a *Facility Improvement Workplan* and proposed timeline, not to exceed three years, for taking measures to bring groundwater quality to within the WQOs (e.g. equipping wastewater pond with a liner meeting hydraulic conductivity standard of $1X10^{-6}$ cm/sec, pretreatment of wastewater prior to discharge to the wastewater pond, a new ROWD and amend WDRs may be required if the character of wastewater changes).

e. Within **six months** of the adoption of this Order, the Discharger shall submit an *Organic Loading Reduction Workplan* that outlines actions the Discharger will implement to reduce organic loading to the LAA and come into compliance with the BOD loading limit (see Requirement E.1).

f. Within **two years** of the adoption of this order,, the Discharger shall have come into compliance with the BOD loading limit to the LAA and submit a completion report. Following concurrence with the *Organic Loading Reduction Work Plan,* the Discharger shall provide written updates to Central Valley Water Board Staff biannually regarding implementation of the *Organic Loading Reduction Workplan*.

2. The Discharger shall comply with the separately issued MRP 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 requirements of the Alternative Salinity Permitting Approach, as described in the Basin Plan and implemented by this Order.

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

6. 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.

7. 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.

8. 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.

9. 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.

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

11. 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.

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

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

14. 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.

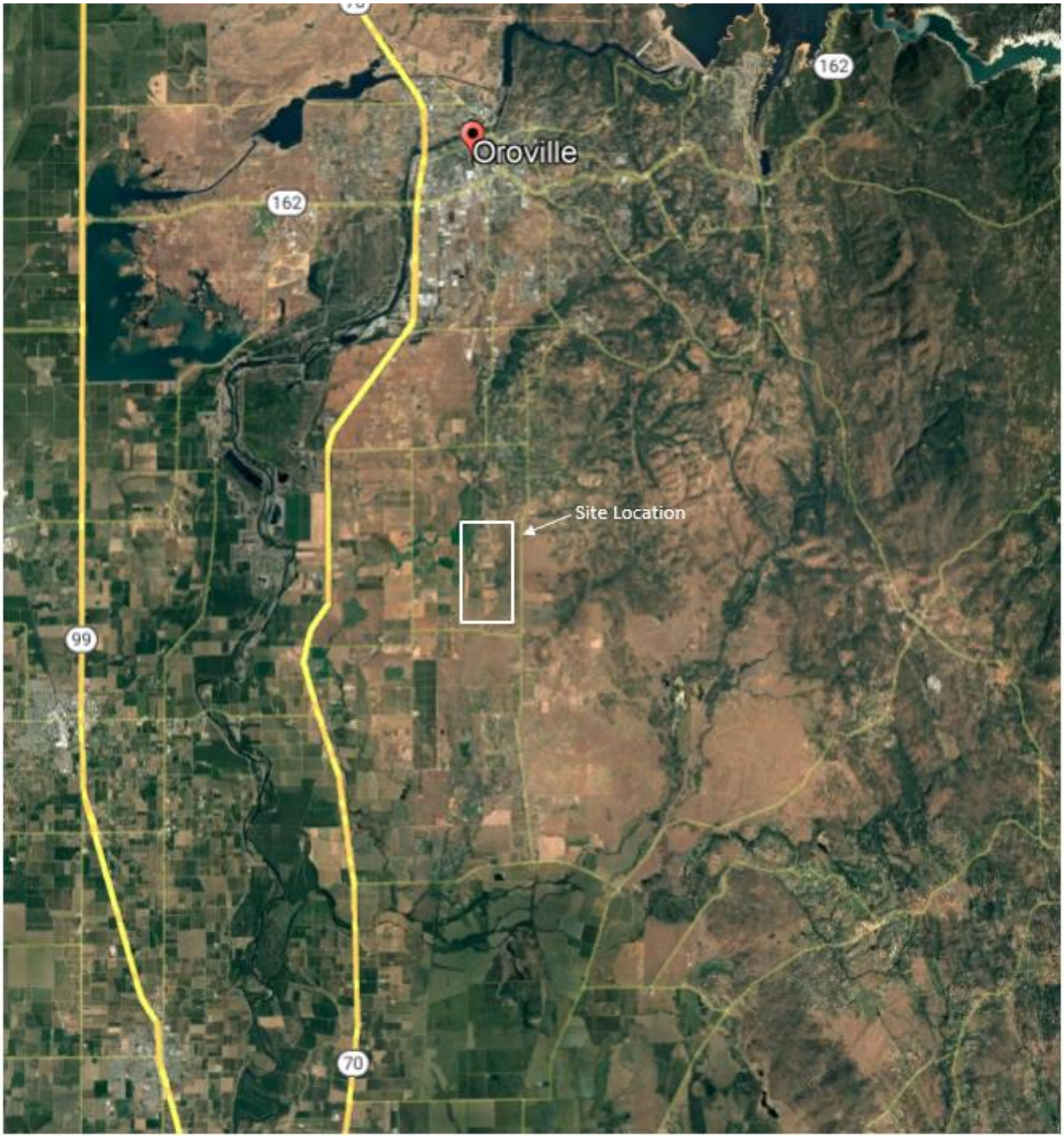
ADMINISTRATIVE REVIEW

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)

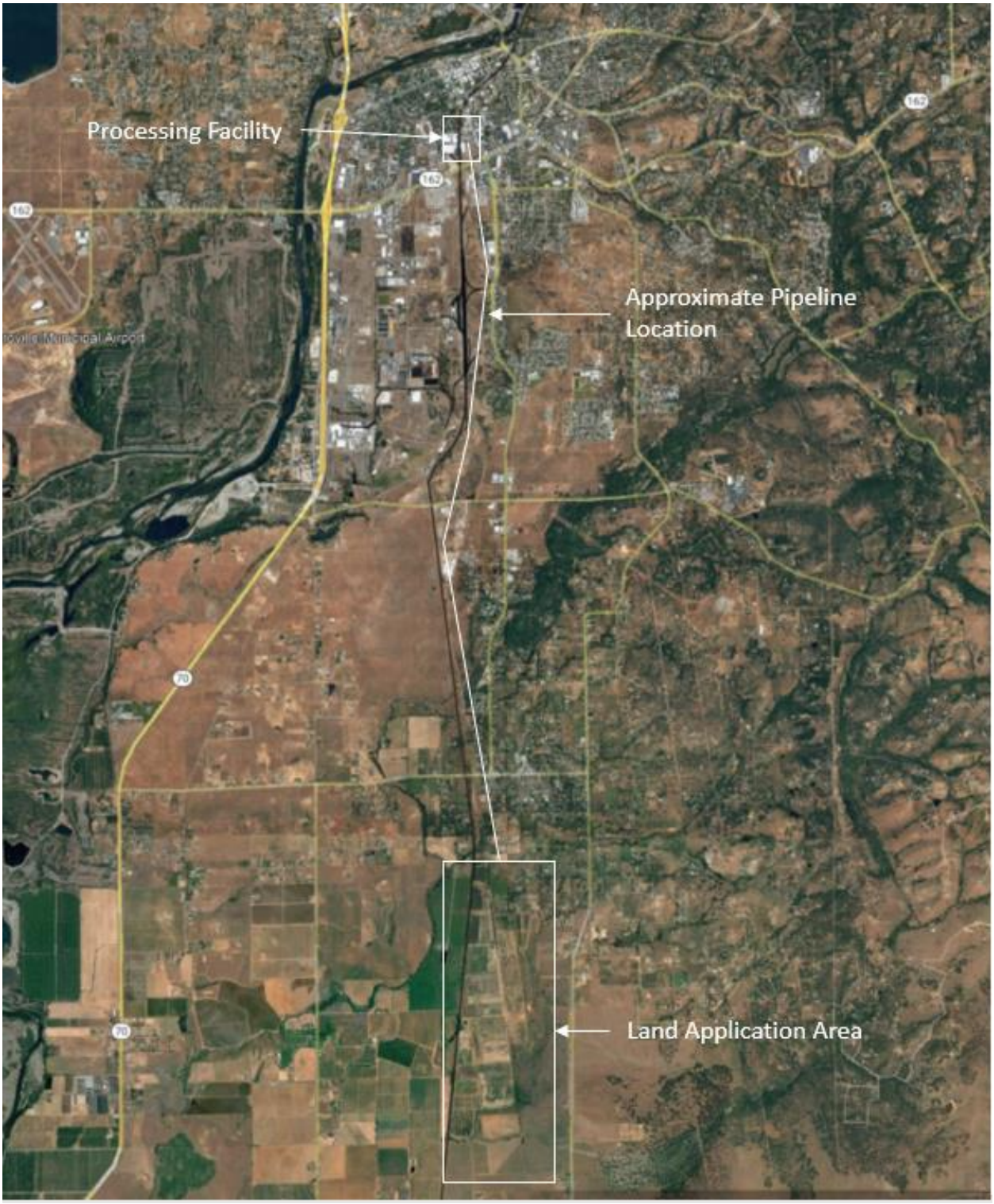
ATTACHMENTS

ATTACHMENT A — SITE LOCATION MAP
ATTACHMENT B — FACILITY, PIPELINE, AND LAA OVERVIEW MAP
ATTACHMENT C — LAND APPLICATION AREA MAP
ATTACHMENT D — PRODUCTION FACILTIY MAP
ATTACHMENT E — REQUIREMENTS FOR MONITORING WELL INSTALLATION

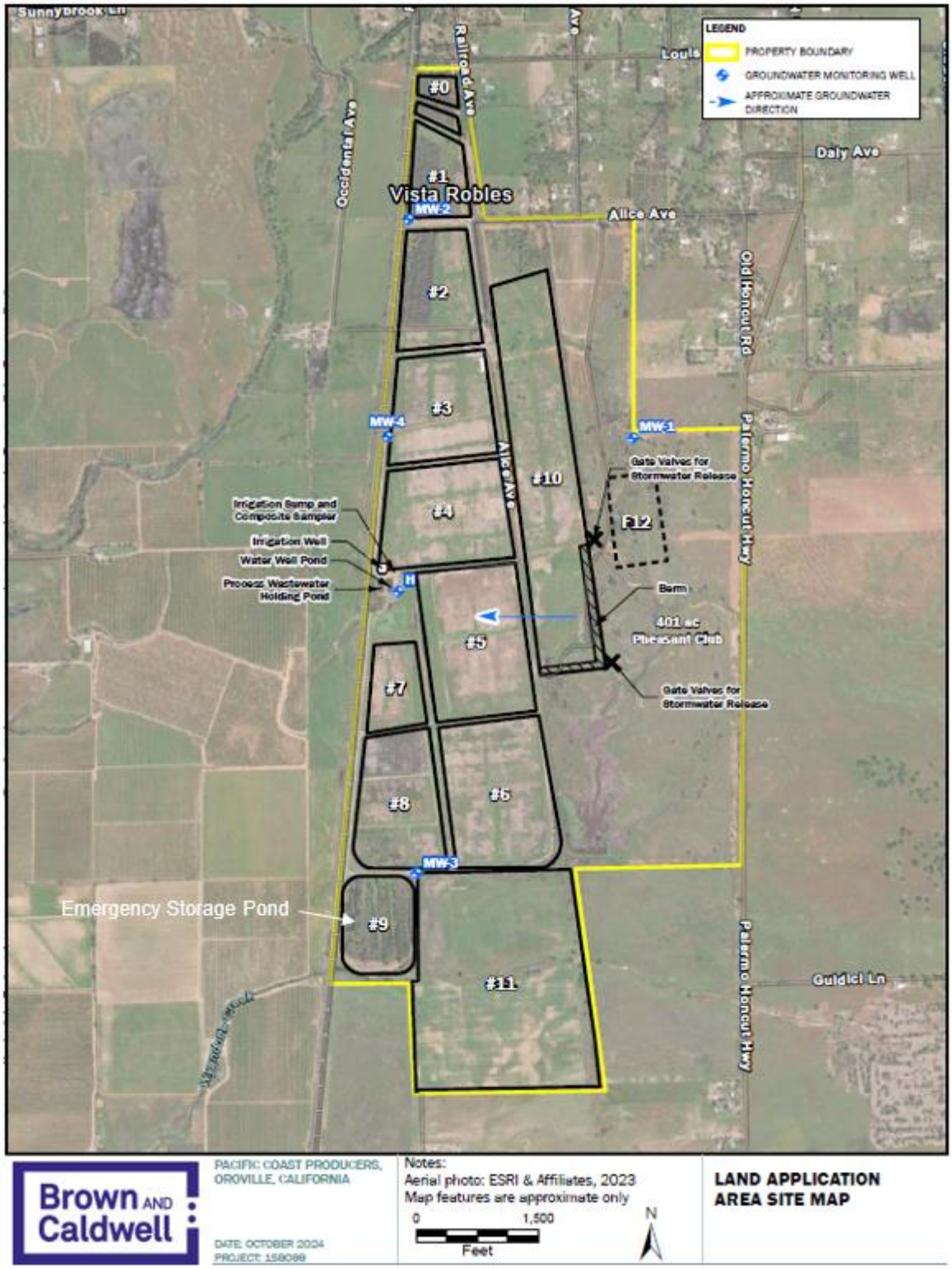
ATTACHMENT A — SITE LOCATION MAP



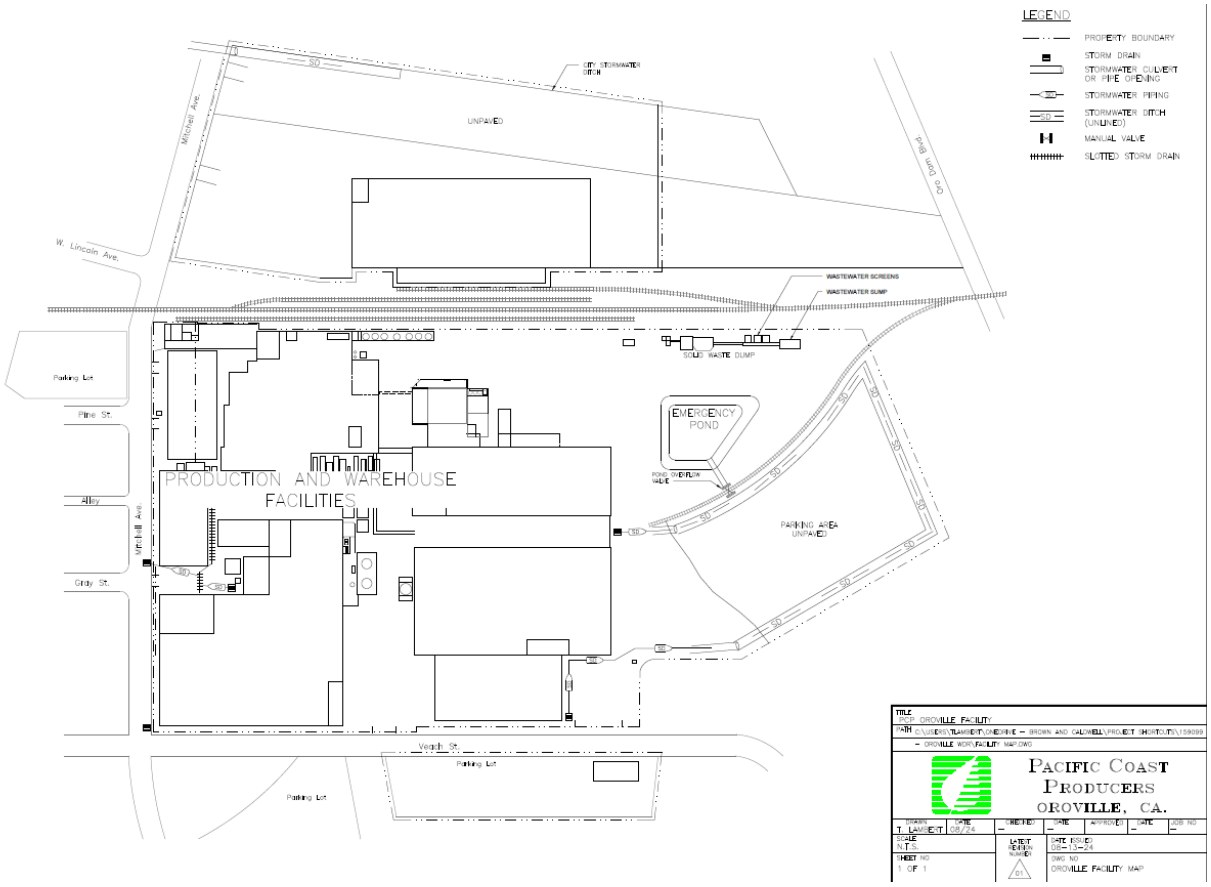
ATTACHMENT B — FACILITY, PIPELINE, AND LAA OVERVIEW MAP



ATTACHMENT C — LAND APPLICATION AREA 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)

D. 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

E. 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.