CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

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[TENTATIVE] WASTE DISCHARGE REQUIREMENTS ORDER R5-2025-XXXX

ORDER INFORMATION

Order Type(s):	Waste Discharge Requirements (WDRs)
Status:	Tentative
Program:	Non-15 Discharge to Land
Region 5 Office:	Fresno
Discharger(s):	Treehouse California Almonds, LLC
Facility:	Earlimart Almond Processing Facility
Address:	6914 Road 160, Earlimart, CA 93219
County:	Tulare County
Parcel Nos.:	See Table 1 for full list of APNs
CIWQS Place ID:	221985
Prior Order(s):	R5-2018-0066, 97-243

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 12 December 2025.

_____
PATRICK PULUPA, Executive Officer

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Glossary

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GLOSSARY

APN	Assessor's parcel number
bgs	Below ground surface
BOD_5	[5-day] Biochemical oxygen demand at 20 degrees Celsius
BPTC	Best practical treatment or control
CEQA	California Environmental Quality Act, Public Resources Code section 21000 et seq
CV-SALTS	Central Valley Salinity Alternatives for Long-Term Sustainability
DO	Dissolved oxygen
DWR	Department of Water Resources
EC	Electrical conductivity
FDS	Fixed dissolved solids
FEMA	Federal Emergency Management Agency
gal	Gallons
gpd	Gallons per day
lb	Pounds
lb/ac/day	Pounds per acre per day
LAAs	Land application areas
MCL	Maximum contaminant level
MG[D]	Million gallons [per day]
MGY	Million gallons per year
mg/L	Milligrams per liter
MRP	Monitoring and Reporting Program
MUN	Municipal
N	Nitrogen
NA	Not applicable or not available
ND	Not detected or non-detect
NPDES	National Pollutant Discharge Elimination System
OAL	Office of Administrative Law
P&O Study	Prioritization and Optimization Study of the Salt Control Program
RL	Reporting limit

RWD	Report of Waste Discharge
SERC	State of Emergency Response Commission
sMCL	Secondary maximum contaminant level
SPRRs	Standard Provisions and Reporting Requirements
TDS	Total dissolved solids
Title 22	California Code of Regulations, Title 22
Title 27	California Code of Regulations, Title 27
TKN	Total Kjeldahl nitrogen
USEPA	United States Environmental Protection Agency
WDRs	Waste Discharge Requirements
WQOs	Water Quality Objectives
µg/L	Micrograms per liter
µmhos/cm	Micromhos per centimeter

FINDINGS

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

Introduction

1. Treehouse California Almonds, LLC (Discharger) owns and operates the Earlimart Almond Processing Facility (Facility) located at 6914 Road 160, Earlimart in Tulare County, as shown in Attachments A and B. The Facility processes almonds year-round and generates wastewater from almond processing operations and wash down/sanitization of processing equipment. The Facility was previously regulated by Waste Discharge Requirements (WDRs) Order R5-2018-0066, which was issued to the Discharger on 2 August 2018. WDRs Order R5-2018-0066 authorized a monthly average daily flow to 0.04 million gallons per day (MGD), or a daily maximum flow 0.09 MGD, to an aerated treatment pond prior to disposal via evaporation/percolation ponds or application to a 38-acre Land Application Area (LAA).

2. On 7 June 2023, the Discharger submitted a Report of Waste Discharge (RWD) that included plans for increasing the number of processing lines and changes to the Facility's wastewater treatment system to allow increased production to meet the needs of nearby farmers. The RWD requested an increase of permitted flow to a monthly average flow of 0.150 MGD, a maximum annual flow of 46 million gallons, and abandonment of the 38-acre LAA in favor of a new 66-acre LAA.

3. A revised copy of the RWD with additional information was provided on 27 June 2023, and supplemental information was provided on 12 July 2023. The RWD also included a Tier 1 Pond Design Report, Construction Quality Assurance Plan (CQA Plan), and Operation and Maintenance Plan (O&M Plan) for proposed wastewater treatment and storage ponds. On 21 July 2023, the Central Valley Water Board requested that the Discharger submit, as part of their complete RWD, a detailed engineering analysis to support the assertion that the proposed treatment system will result in a reduction of BOD_5 in the treated effluent. The Discharger provided the additional information to complete the RWD on 30 August 2023.

4. A summary of Facility parcels, acreage, and land use is presented in Table 1, below, and shown in Attachment A (Site Location Map). Acreages presented in Table 1 are approximate. Attachment B (Site Plan Map) shows the Facility source water wells, the parcel numbers for the new LAA, and wastewater treatment facilities.

Table 1 – Acreage and Land Use

APN	Acres	Land Use
319-060-019	4.68	Almond Processing Facility
319-060-022	15.81	Almond Processing Facility
319-060-037	40.71	Almond Processing Facility, Solar Panels, Stormwater Pond, Former LAA
318-290-006	38.55	New WWTF & New LAA
318-290-005	39.32	New LAA
	Total =139.07	

5. As the Facility's owner and operator, the Discharger is responsible for compliance with the WDRs prescribed in this Order.

6. The following materials are attached and incorporated as part of this Order:

   a. Attachment A – Site Location Map

   b. Attachment B – Site Plan Map

   c. Attachment C – Facility Map

   d. Attachment D – Process Flow Diagram

   f. Information Sheet

   g. Standard Provisions & Reporting Requirements dated 1 March 1991 (1 March 1991 SPRRs) [https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/std_provisions/wdr-mar1991.pdf]

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

8. With construction of the new treatment system and the change to the LAA, Facility operations and disposal practices have changed since WDRs Order R5-2018-0066 was adopted. The revised WDRs herein are necessary to reflect existing operations at the Facility and ensure the discharge meets the requirements of current water quality plans and policies.

Facility and Discharges

9. The Facility receives shelled, raw almonds from multiple local almond hullers for further processing, including washing, blanching, slicing, crushing, and dry roasting. Approximately 80 million pounds of almonds are produced at the

Facility year-round for use by other food industries. Wastewater generated at the Facility is primarily from blanching and equipment wash-down. Other waste streams generated at the Facility include boiler blowdown, reverse osmosis reject water, scalder drain water, and some stormwater. Domestic wastewater generated at the facility is managed separately from the process wastewater and is regulated by Tulare County.

10. Previously, wastewater from the Facility drained to one of two sumps, where it was combined and screened to remove solids, then discharged to a series of five unlined ponds. The first pond was equipped with two aerators and acted as a treatment pond. From the first pond, the wastewater could then be discharged to the remaining evaporation/percolation ponds or to the 38-acre LAA.

11. The Discharger experienced a fire in their production area in January 2021, which prompted to the Discharger to reevaluate and reprioritize its reconstruction design plans. This led to an increase in production lines from two to three, which consequently increased wastewater production. Upgrades to the Facility to allow the increase in wastewater production included a new wastewater treatment system and abandoning the previous 38-acre LAA for a new 66-acre LAA. These upgrades were completed and the new system became operational in spring 2025 and are discussed in more detail below. While three production lines are currently completed at the Facility, the Discharger designed contingencies for a fourth production line to be installed in the future. A flow diagram of the upgraded process wastewater flow is included as Attachment D.

12. According to the RWD, wastewater from the Facility is now collected in drains and sent to a single wastewater collection sump. From the sump, wastewater is pumped to the new wastewater treatment area facility southwest of the almond processing/production warehouse. At the wastewater treatment area, the wastewater is screened to remove solids before being discharged into the wastewater treatment system.

13. Following screening, wastewater gravity flows to two serial lined ponds consisting of an anaerobic contact system (Anaerobic Ponds 1 and 2). After anaerobic treatment, wastewater is aerated via fine-bubble diffused aeration in the lined aerobic pond, then sent to the clarifier, and ultimately to the lined effluent storage pond. The effluent storage pond has a storage capacity of 17.1 million gallons (with 2 feet of freeboard) and provides approximately 120 days of storage at the monthly average flow rate of 150,000 gpd. The effluent storage pond was originally sized to also receive stormwater from parts of the Facility; however, the Discharger has indicated that all stormwater runoff will be directed to a dedicated onsite stormwater basin instead.

14. Each of the ponds includes a double liner construction with two layers of 60-mil high-density polyethylene (HDPE) and contain a middle 175-mil geonet

layer. Additionally, each pond is equipped with a leakage collection and removal system (LCRS), and a pan lysimeter to monitor for potential leakage in the area of the secondary liner, where standing water is most likely to occur during operation.

15. The two anaerobic ponds are designed to allow for installation of a cover to control odors, if necessary.

16. The overall dimensions of the new anaerobic, aerobic, and effluent storage ponds are summarized in Table 2 below. The volumes presented in Table 2 do not include two feet of freeboard in each pond and only reflect the working capacity of the ponds. A close-up site plan showing pond configuration is included as Attachment C.

Table 2 – Double-Lined Ponds

Pond ID	Volume (MG)	Length (ft)	Width (ft)	Depth (ft)
Anaerobic Pond 1	0.38	88	88	19
Anaerobic Pond 2	0.38	88	88	19
Aerobic Pond	1.28	280	87	13
Effluent Storage Pond	17.1	466	280	27

17. Treated effluent from the storage pond is blended with irrigation water in standpipes and then applied to a 66-acre land application area that is rotated with corn and winter forage crops.

18. Solids within the wastewater treatment system are recycled in a couple of ways. A mixing pump draws water and anaerobic solids from the bottom of Anaerobic Pond 2 and discharges to the bottom of Anaerobic Pond 1 and Anaerobic Pond 2, causing both those ponds to become mixed bioreactors. Solids are also recycled from the clarifier to Anaerobic Pond 1 and the Aerobic Pond in the extended aeration activated sludge component of the system. There is no treatment solids storage area at the Facility, all solids are collected in tanker trucks for offsite disposal.

19. If the anaerobic ponds remain uncovered, biological solids are removed from bioreactor system at both anaerobic ponds using pond cleaning equipment (e.g. an agitator pump). If covers are installed over the anaerobic ponds, solids may be removed from Anaerobic Pond 2 via the mixing pump to a transport truck for offsite disposal. Anaerobic Pond 1 contains a separate, dedicated pipe that

allows water/solids to be sucked from the bottom of the lined pond and deposited in a tanker truck for offsite disposal.

20. Solids collected from equipment within the almond processing facility (culls, skins, almond pieces, etc.) are hauled off-site for use as cattle feed. Additionally, screened solids removed from the wastewater at the influent screens upstream of the treatment ponds are collected on a concrete curbed pad at the treatment facility and are either hauled off-site for cattle feed or land applied on the LAA at agronomic rates.

Wastewater Flows and Quality

21. Table 3 shows a summary of annual average and total annual wastewater flows for the past five years. Monthly average flows exceeded the monthly average flow limit of 0.04 MGD several times during this time period, and flow data for 2024 is only available for the first quarter of 2024. The Discharger explained the non-reporting of flow in 2024 was caused by a broken meter. During a 24 September 2025 inspection, Central Valley Water Board staff observed that new flow meters have been installed throughout the wastewater treatment facility, enabling consistent collection of flow data going forward.

Table 3 – Wastewater Flow

Month	2020	2021	2022	2023	2024
Annual Average Daily Flow (MGD)	0.0306	0.0293	0.0337	0.0561	0.0497
Total Annual Volume (Million Gallons)	10.25	10.68	12.24	20.46	--

22. Table 4 compares the observed 2020 – 2024 average influent and effluent wastewater quality from before the new wastewater upgrades were completed and the anticipated effluent quality of the new wastewater treatment system. Results presented in Table 4 are in mg/L, unless otherwise specified.

Table 4 – Wastewater Quality

Constituent	2020-2024 Average Influent Quality	2020-2024 Average Effluent Quality	Anticipated Effluent Quality	WQOs
EC (umhos/cm)	551	3,375	--	700 (Ag) 900 sMCL
Biochemical Oxygen Demand (BOD_5)	2,223	1,735	40 – 60	NA
Ammonia as Nitrogen	--	5.4	0 – 10	NA
Nitrate as Nitrogen	7.4	0.982	60 – 75	10
Total Kjeldahl Nitrogen (TKN)	--	85.3	--	NA
Total Nitrogen	81	88	60 – 85	NA
TDS	2,777	1,452	1,200	500
Fixed Dissolved Solids (FDS)	862	665	730	NA
Sodium	91	188	200	69 For Ag from Ayers AND Wescott
Chloride	65	101	150	250 (sMCL)

1. "--" denotes result is not recorded, NA = Not Applicable

23. The observed treated effluent levels for EC and TDS from the previous treatment system are elevated. A large fraction of the TDS appears to be organic dissolved solids rather than fixed dissolved solids (FDS). The previous treatment system was getting substantial removal of TDS by organic removal. The Discharger anticipates enhanced TDS removal due to the new biological treatment processes.

24. Similarly, the Discharger expects the wastewater treatment upgrades to substantially improve BOD removal. According to a 30 August 2023 letter from P&P staff, the two anaerobic treatment ponds are anticipated to remove around 50 percent of the BOD_5, and the extended aeration activated sludge system is sized to further reduce BOD_5 to about 40 - 60 mg/L, resulting in greater than 95 percent BOD_5 removal. The BOD removal should significantly minimize the potential for odors in the effluent storage pond and potential for reducing conditions in soil and groundwater underlying the Facility.

25. The RWD provides a water balance for the effluent storage pond considering a monthly average flow of 0.15 MGD for 312 days per year (or an annual flow of 46.8 million gallons). Water balance calculations assume the storage pond holds

no water on 1 October, a monthly average wastewater flow of 0.15 MGD, the 100-year annual return rainfall, and evaporation from the storage pond. As noted previously, the water balance also assumes stormwater runoff from approximately 435,000 square-feet of impervious surfaces near the almond processing warehouse. Based on the Discharger's calculations, the maximum accumulation of water in the effluent storage pond will occur towards the end of February and be around 14.8 million gallons. With a proposed storage capacity of around 17.1 million gallons, the effluent storage pond appears adequately sized to handle the proposed increase in flow. Additionally, the Discharger has recently indicated that stormwater runoff considered in previous calculations will now be directed to a dedicated stormwater basin; therefore, the maximum estimated accumulation is the storage pond appears to be a conservative estimate.

Land Application Area

26. The new LAA is composed of two fields, one north of the new wastewater treatment system and one south of the new LAA (Attachment B). The acreage of the north field is 38 acres, the south field is 28 acres two fields for a total of 66 acres available for land application of wastewater. The southern LAA consists of a corn-winter forage crop rotation that is irrigated by surface flooding. The northern LAA has a dual irrigation system consisting of both surface flood and drip irrigation, and is currently planted with pistachio trees. The drip irrigation system only utilizes fresh irrigation water, while the surface flood irrigation will use the mix of treated effluent and stormwater. The Discharger's long-term plan is to remove the pistachio trees in favor of crops similar to the southern LAA. The Discharger states that the LAA is managed so that no offsite runoff occurs, and a tailwater system is used to pump water back up to the head of the field as needed. A tailwater pond with a compacted soil liner was constructed as part of the upgrade to collect irrigation tailwater or runoff from the LAA and return it to the irrigation or treatment systems.

27. Gross hydraulic loading of process wastewater to the LAA, as presented in the RWD, is summarized in Table 5 below.

Table 5 – Annual Hydraulic Load to LAA

Crop	Acres	Effluent	Freshwater	Total Irrigation Water	Percent From Effluent	Percent From Freshwater
		MG	MG	MG	%	%
Corn Silage	66	20.9	49.7	70.5	30	70
Winter Forage	66	22.4	0	22.4	100	0
Total		43.3	49.7	93	47	53

28. The total annual crop water demand at the LAA is approximately 93 MG and the total annual treated wastewater flow is about 43 MG. Wastewater applications only make up about 30 percent of the crop water demand for the warm season corn silage crop, and the remaining warm season water demand is provided by irrigation water. Only effluent is expected to be used to irrigate the winter wheat crop. Approximately 53 percent of the annual irrigation total for the LAA will be met with supplemental irrigation water.

29. The RWD includes a summary of estimated nitrogen applied with wastewater, nitrogen removed by crop type, and a net nitrogen balance. The Discharger's calculations also assume wastewater application to the total available LAA, a ten percent loss of applied nitrogen via ammonia volatilization, and a five percent loss of nitrate-N via soil micropore denitrification. However, the RWD estimates only consider the effluent flow presented in Table 5 for the anticipated hydraulic load to meet crop demand. Recalculation of the estimated wastewater nitrogen loading considering the proposed maximum annual flow rate of 46.8 MG, an effluent total nitrogen concentration of 85 mg/L, and the same losses considered by the Discharger results in a nitrogen loading of about 427 pounds per acre per year (lbs/ac/yr). The estimated nitrogen load to the LAA from irrigation water is 21 lbs/ac/yr, based on the remaining annual crop hydraulic demand (46.2 MG) and the observed nitrate concentration of 3.6 mg/L in the irrigation water (see Table 10). Table 6 summarizes estimated annual nitrogen applications from wastewater and irrigation water, published nitrogen uptake rates (Geissler, 2016) for corn silage and winter forage, and the resulting nitrogen balance at the LAA. The RWD indicates that commercial fertilizers will only be used occasionally and as needed based on residual soil nitrogen concentrations.

Table 6 – Nitrogen Loading/Balance

Crop Rotation	Acres	Wastewater N Applied	Irrigation Water N Applied	N removal By Crop	N Balance
	acres	lbs N/acre	lbs N/acre	lbs N/acre	lbs N/acre
Corn Silage	66			241	

Crop Rotation	Acres	Wastewater N Applied	Irrigation Water N Applied	N removal By Crop	N Balance
	acres	lbs N/acre	lbs N/acre	lbs N/acre	lbs N/acre
Winter Forage	66	427	21	263	-56
Total	66			504	

30. Based on the nitrogen loading analysis, slightly more nitrogen is expected to be removed from the LAA by crop uptake than is discharged annually to the LAA from treated effluent and supplemental irrigation water.

31. The RWD estimates salt loading based on FDS concentrations of both the process wastewater and supplemental irrigation water for a corn-wheat (winter forage) rotation. Similar to the Discharger's nitrogen loading calculations, RWD FDS estimates are based on the irrigation demand schedule and do not reflect the total annual maximum effluent flow. Recalculation of FDS loading using the total annual maximum flow volume of 46.8 MG, and the anticipated FDS concentration of the effluent (730 mg/L) results in effluent FDS loading of 4,319 lbs/ac/yr. Loading from supplemental irrigation water considering the observed FDS concentration of 110 mg/L (see Table 10), and the remaining annual crop hydraulic demand results in an FDS load of 641 lbs/ac/yr. The estimated gross annual FDS load to the LAA from wastewater and supplemental irrigation water is 4,960 lbs/ac/yr. A summary of the estimated FDS load considering the total annual maximum flow is presented in Table 7 below.

32. Net FDS loading calculations included in the RWD also consider published salt removal rates (adapted from Brown and Caldwell and Kennedy Jenks, 2007) for the corn-wheat rotation. Additionally, salt uptake assumes that the ash (salt) content of crops is approximately 10 percent of the crop yield on a dry matter basis (*Manual of Good Practice for Land Application of Food Processing/Rinse Water*, published by the California League of Food Processors). For the total from both crops, the Discharger anticipates that about 3,420 lbs/ac/yr of FDS is taken up and removed with harvest, resulting in a net annual FDS load of 1,540 lbs/ac/yr. A summary of the estimated net salt loading is also presented in Table 7.

Table 7 – Estimated Annual FDS Loading

Wastewater Effluent (lbs/acre/yr)	Fresh Irrigation Water (lbs/acre/yr)	FDS Removed with Harvest (lbs/acre/yr)	Net FDS Applied (lbs/acre/yr)
4,319	641	3,420	1,540

33. The RWD included a cycle average BOD loading summary based on an example irrigation plan over one year for the LAA. Estimated wastewater BOD loading

calculations considered the anticipated BOD_5 concentration of the effluent (60 mg/L), a flow rate of 0.15 MGD, and cycle lengths ranging from 4 to 116 days. Overall, the example irrigation plan indicates that maximum daily BOD loading rates range from 3 to 97 lbs/ac, and the cycle average BOD loading rates ranged from 0.2 to 4.6 lbs/ac/day.

Site-Specific Conditions

Topography, Climate, and Land Use

34. Local land use in the Facility vicinity is agriculture, and the site is surrounded by farmland, according to the California Department of Water Resources (DWR) Land Use Viewer (https://gis.water.ca.gov/app/CADWRLandUseViewer/?page=home). Major crops grown in the area consist of almonds and vineyard, with some truck crops. The land surface in the general vicinity of the Facility slopes gently to the west approximately 12 feet per mile, and elevation ranges from approximately 304 to 312 feet above mean sea level (msl). Surface water eventually drains toward Deer Creek, approximately 2 miles WNW of the Facility.

35. According to the Natural Resources Conservation Service website (https://websoilsurve.sc.egov.usda.gov/App/WebSoilSurvey.aspx), the dominant soil type present at the Facility and LAAs (approximately 99 percent) is the Crosscreek-Kai association, with members varying from loam to silt-loam, to sandy loam, to cemented. Local soils exhibit varying salinity, from non-saline to strongly saline, and are moderate well-drained to well-drained with slopes of 0 to 2 percent.

36. The Facility is in the Central Valley, which is an arid climate characterized by dry summers and mild winters. Based on information using the California Irrigation Management Information System (CIMIS) Delano - Station 182, the annual reference evapotranspiration near Facility is estimated to be 57.9 inches. According to National Oceanic and Atmospheric Association (NOAA) records, the average annual rainfall between 2006 and 2020 in the Delano area is 7.87 inches, and the year with the greatest precipitation for Delano from 1906 through 2023 was 1978 with 15.74 inches of rainfall.

37. Approximately 39 acres of LAA on the north end of the Facility and the processing warehouses are located within Zone A of the 100-year flood zone, as defined by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map. Zone A indicates there is a one percent annual risk of a major flood. The remainder of the LAA and the wastewater treatment facility are not in the 100-year flood zone.

38. The RWD includes a “Floodproofing Certificate for Non Residential Structures” signed by Gerald A. Mele (SE 2663, PE 31958). The certificate states the building is floodproofed to 318.7 feet and the highest adjacent finished grade next to the building is 316.2 feet. Otherwise, the LAAs are bermed and a tailwater return system is in place to manage flood or irrigation waters from running offsite. The effluent storage pond is sized to handle runoff from the 100-year return annual rainfall season and the flow of treated wastewater effluent; however, as mentioned previously, the Discharger has indicated that all Facility stormwater runoff will now be directed to a dedicated stormwater basin, providing even more available storage capacity in the effluent storage pond.

Groundwater, Source Water, and Irrigation Water Quality

39. Available nearby groundwater depth information from the Sustainable Groundwater Management Act (SGMA) database indicates that groundwater underlying the Facility was greater than 230 feet below ground surface (bgs) during the 2020-2024 period. During this same period, the primary groundwater flow direction underlying the Facility has been towards the west-southwest with differing flow directions towards the southwest and west-northwest at times.

40. According to the Discharger, the source well data reported in self-monitoring reports (SMRs) was collected from three wells that are located at the southeast corner of the original production facility site, labeled as the “Source Well.” Construction details for these wells are summarized in Table 8.

Table 8 – Construction Details for the Source Well

	Well #1 – North Well	Well #2 – Middle Well	Well #3 – South Well
Date Drilled	unknown	16 August 2016	4 April 2018
Well Depth (feet bgs)	unknown	660	660
Depth of Screening (feet bgs)	unknown	302–540 & 572-634	300-420 & 450-660
Other	collapsed	crooked	--

41. Analytical test results from source well monitoring conducted from 2016 through 2024 for select parameters are summarized in Table 9. Generally, the results indicate that source water quality at the Facility is of good quality for constituents of concern. While the average result for pH appears low, this result appears to be skewed from a singular low result (2 SU), which is highly questionable. The single low result does not appear to fit the pH dataset, and removing the low result from the pH dataset results in average (as calculated with corresponding

hydrogen ion concentration values) and median pH results of 7.9 and 8.7, respectively. Results are presented in mg/L, unless otherwise specified.

Table 9 – Source Well Water Quality

Constituent	Average	Range	No. of samples
pH (SU)	3.2	2.0 - 10	16
EC (µmhos/cm)	634	360 - 800	19
TDS	320	200 - 430	7
FDS	176.7	110 - 310	3
Sodium	60	56 -63	5
Chloride	50	46 - 52	5
Calcium	39.8	35 - 44	5
Potassium	3.4	3.2 -3.6	3
Nitrate as N	6.7	0.68 – 9.4	10
Bicarbonate (mg/L as CaCO3)	89.5	76 -120	4
Sulfate	89	78 - 100	2
Iron	0.14	ND – 0.65	8
Manganese	0.007	ND – 0.015	5

42. Irrigation water quality monitoring results for nitrate, TDS, and FDS are presented in Table 10. A single irrigation well sampling event occurred on 13 June 2024. Until now, the irrigation water supply has come from the source well. The Discharger anticipates beginning to use the water from the "Irrigation Well," shown in Attachment B, and anticipates also using the Irrigation Well as a back-up for process supply water. The sample results indicate that irrigation water quality is good for the constituents tested.

Table 10 – Irrigation Water Quality

Constituent/Parameter (mg/L)	Result
TDS	200
FDS	110
Nitrate as Nitrogen	3.6

43. Table 11 summarizes well the limited available groundwater quality data in the Facility vicinity. These data were compiled from the GAMA database and represent sample results collected between 1957 and 2020 for 15 wells located within two miles of the Facility source well. Most screen depths for the wells are unknown; however, screened intervals recorded for three wells range from 140 to about 176 feet bgs. The data is grouped into upgradient and downgradient wells,

presenting the average result, the number of samples used to calculate the average value in parentheses, and the value in brackets is the range of results. Results are presented in mg/L, unless otherwise specified, and NA denotes "not available."

Table 11 - Nearby Available Groundwater Data

Constituent	Upgradient	Downgradient
pH (SU)	7.8 (3) [7.4–8.2]	7.9 (2) [7.8–8.0]
EC (µmhos/cm)	267 (2) [200–334]	227.5 (2) [213–242]
TDS	225 (3) [210–233]	174.2 (5) [151-218]
Sodium	45 (3) [45-59]	53.5 (2) [54–55]
Chloride	15.3 (4) [5-24]	11.8 (6) [7.9–18]
Calcium	11.7 (3) [4-18]	2.3 (4) [2–2.6]
Potassium	1.5 (4) [1–2.4]	0.6 (4) [0.5–0.7]
Nitrate as Nitrogen	4.6 (5) [0.2-13.2]	5.2 (7) [0.01 – 12]
Sulfate	20.7 (4) [8.6–25]	14.8 (6) [13 – 18]
Iron	<0.001 (1) [<0.001–<0.001]	0.033 (4) [0.0005 – 0.05]
Manganese	NA	0.0005 (2) [0.0005 – 0.0005]

44. For nitrate, the average concentration in nearby wells is well below the WQO of 10 mg/L as nitrogen. While the maximum downgradient concentration of nitrate exceeds the WQO, a similar concentration has been observed in the upgradient wells. Generally, groundwater quality in surrounding nearby wells is good, with all average constituent concentrations under applicable WQOs.

Legal Authorities

45. 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. (Water Code, § 13263, subd. (g).)

46. This Order, in part, and its associated MRP are 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.*

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

47. 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 … into which, the discharge is made or proposed. The requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of [Water Code] Section 13241.*

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

Basin Plan Implementation

Beneficial Uses of Water

48. This Order implements the Central Valley Water Board's *Water Quality Control Plan for the Tulare Lake Basin* (Basin Plan), which designates beneficial uses for surface water and groundwater and establishes WQOs necessary to preserve such beneficial uses. (See Wat. Code, § 13241 et seq.)

49. The Facility and LAAs lie within the South Valley Floor Hydrologic Unit, specifically the Tule Delta Hydrologic Area (No. 558.20), as depicted on interagency hydrologic maps prepared by the DWR in August 1986. Local drainage is to the Deer Creek. Per the Basin Plan, beneficial uses of underlying groundwater in the Facility vicinity are municipal and domestic water supply (MUN), agricultural supply (AGR), industrial service supply (IND), and industrial process supply (PRO).

Water Quality Objectives

50. The Basin Plan establishes narrative WQOs for chemical constituents, tastes and odors, and toxicity in groundwater.

51. The narrative WQO for chemical constituents in groundwater generally provides that groundwater shall not contain constituents in concentrations adversely affecting beneficial uses. The Basin Plan specifies that MUN designated waters must, at a minimum, meet the secondary MCLs specified in California Code of Regulations, title 22 (Title 22). 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.

52. The narrative WQO for tastes and odors in groundwater provides that groundwater shall not contain taste- or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.

53. The narrative WQO for toxicity in groundwater provides that groundwater shall 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.

54. 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 WQO 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 WQO. In establishing a specific numeric interpretation of a narrative WQO, the Basin Plan methodology is to consider any relevant published criteria.

Salt Control Program

55. The Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting (Resolution R5-2018-0034). The Basin Plan amendments became effective on 17 January 2020 and were revised by the Central Valley Water Board in 2020 to make targeted revisions

requested by the State Water Board with Resolution R5-2020-0057. The revisions to the Basin Plan amendments became effective on 10 November 2021 (https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/resolutions/r5-2020-0057_res.pdf).

56. Under the Salt Control Program, dischargers that are unable to comply with stringent salinity requirements may instead be subject to performance-based requirements as determined appropriate by the Central Valley Water Board, and participate in a basin-wide effort known as the Prioritization and Optimization Study (P&O Study) to develop a long-term salinity strategy for the Central Valley. The Discharger submitted a Notice of Intent on 20 April 2021 and was issued an identification number for the Salt Control Program (CV-SALTS ID 1984). The Discharger elected to participate in the P&O Study and is currently in good standing with the program. To maintain existing salt discharges and minimize salinity impacts, this Order sets a performance-based effluent limitation of 950 mg/L of FDS. The performance-based limit is based on a maximum anticipated annual average wastewater effluent FDS concentration (730 mg/L) and includes a 25 percent contingency to account for drought conditions and water conservation efforts.

Nitrate Control Program

57. The Nitrate Control Program is a prioritized program. The Facility is within Groundwater Basin 5-022.13 (San Joaquin Valley – Tule Basin), which is a Priority 1 Basin. The Board issued Notices to Comply to dischargers in Priority 1 Basins in May 2020. These notices provided dischargers with a choice to participate in an individual permitting approach (Pathway A) or in a collective permitting approach (Pathway B). Under the collective approach, dischargers jointly form “Management Zones” that fulfill the requirements of the Nitrate Control Program. In response to the Notice to Comply, the Discharger selected Pathway B and joined the Tule Basin Management Zone.

58. Under the Nitrate Control Program, dischargers that cause or contribute to nitrate pollution in groundwater may apply, individually or collectively, for a limited term “exception” from meeting nitrate limits. Compliance time schedules must be as short as practicable and are not to exceed 35 years. The Central Valley Water Board will only grant exceptions upon finding that all elements of the Board’s Exceptions Policy are met. For nitrate, the Exceptions Policy dictates that exceptions will not be considered unless an adequate supply of clean, safe, reliable and affordable drinking water is available for those who have been adversely affected by the non-compliant discharge.

59. Management Zones in Priority 1 Basins were required to submit Management Zone Implementation Plans (MZIPs). The Tule Basin Management Zone submitted an MZIP on 5 September 2023. The MZIP was deemed complete by the Board's Executive Officer in November 2023. The MZIP contains a proposal for how dischargers within the Tule Basin Management Zone will meet requirements of the Nitrate Control Plan and the Exceptions Policy.

60. To meet the requirements of the Nitrate Control Plan, the Tule Basin Management Zone MZIP includes sector-based Nitrate Reduction Programs, including one for Non-15 dischargers, such as the Discharger. The MZIP proposes that the Discharger prepare and submit a facility-specific Nitrate Reduction Work Plan that would characterize the facility's impact on groundwater, quantify the facility's nitrate loading to the Upper Zone of groundwater, estimate the necessary improvements to the facility's discharge to comply with the Management Zone's Groundwater Protection Target(s) and/or other developed compliance metrics, and provide an implementation schedule that will ensure that the facility complies with the Nitrate Control Program.

61. The Tule Basin Management Zone MZIP proposes to meet the requirements of the Exceptions Policy by, among other things, continuing an interim drinking water program that performs outreach to residents potentially affected by nitrate contamination, offers free nitrate well testing, and provides free replacement water to households whose wells are found to exceed the nitrate drinking water standard.

62. The MZIP will serve as the basis for permit amendments for all dischargers in the Management Zone. The Board proposes to consider a package of permit amendments for all dischargers in the Management Zone in a single permitting action, where the Board will also make findings as to whether the requirements of the Exception Policy are met by the proposals in the MZIP. In the interim, the Discharger is subject to a Conditional Prohibition that requires that the discharger continue to participate in funding and implementing the drinking water program described in the MZIP.

63. As these strategies are implemented, the Central Valley Water Board may find it necessary to modify the requirements of these WDRs. As such this Order may be amended or modified to incorporate any newly applicable requirements to ensure that the goals of the Salt and Nitrate Control Programs are met. More information regarding this regulatory planning process can be found on the Central Valley Water Board's CV-SALTS website (https://www.waterboards.ca.gov/centralvalley/water_issues/salinity).

Special Considerations for High Strength Wastewater

64. For the purpose of this Order, “high strength wastewater” is defined as wastewater that contains concentrations of readily degradable organic matter that exceed typical concentrations for domestic sewage. Such wastes contain greater than 500 mg/L BOD_5. Typical high strength wastewaters include septage, some food processing (e.g., slaughterhouse) wastes, winery wastes, and rendering plant wastes.

65. 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 such as planting crops to take up nutrients or maximizing oxidation of BOD to prevent nuisance conditions.

66. Regarding 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. Below the ground surface, when insufficient oxygen is present, anaerobic decay of organic matter can create reducing conditions that convert metals that are naturally present in the soil as relatively insoluble (oxidized) forms into more soluble reduced forms. This condition can be exacerbated by acidic soil and/or 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 degradation and beneficial use impacts associated with these metals.

67. 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.

68. *Pollution Abatement in the Fruit and Vegetable Industry*, published by the United States Environmental Protection Agency (USEPA), recommends BOD loading rates in the range of 36 to 600 lbs/acre/day to prevent nuisance, but indicates that higher loading rates may be appropriate 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 Central Valley region.

69. 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 particular BOD loading rate ranges as follows:

    A. Risk Category 1: (less than 50 lbs/ac/day; depth to groundwater greater than 5 feet) Indistinguishable from good farming operations with good distribution important.

    B. Risk Category 2: (less than 100 lbs/ac/day; depth to groundwater greater than 5 feet). Minimal risk of unreasonable groundwater degradation with good distribution more important.

    C. Risk Category 3: (greater than 100 lbs/ac/day; depth to groundwater greater than 2 feet) Requires detailed planning and good operation with good distribution very important to prevent unreasonable degradation, as well as use of oxygen transfer design equations that consider site specific application cycles and soil properties and special monitoring.

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

70. Although it has not been subject to a scientific peer review process, the *Manual of Good Practice* provides science-based guidance for BOD loading rates that, if fully implemented, are considered a best management practice to prevent groundwater degradation due to reduced metals. Projected BOD loading rates to the LAAs are less than 10 lbs/ac/day, as discussed in Finding 33. These WDRs establish a BOD cycle average loading rate limit of 100 lbs/ac/day to prevent odor conditions from occurring and to prevent groundwater degradation due to reduced metals.

Compliance with Antidegradation Policy

71. State Water Board Resolution 68-16, *Statement of Policy with Respect to Maintaining High Quality Waters of the State* (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 the discharge(s) causing such degradation is consistent with the maximum benefit to the people of California, will not unreasonably affect beneficial uses, and will not result in water quality worse than applicable WQOs. Any discharge to high quality waters must meet requirements that will result in 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.

72. The Antidegradation Policy applies when an activity discharges to high quality waters. "High quality waters" are defined as those waters where water quality is more than sufficient to support beneficial uses designated in the Basin Plan. Whether a water is high-quality water is established on a constituent-by-constituent basis, which means that an aquifer can be considered a high-quality water with respect to one constituent, but not for others (State Water Board Order WQ 91-10). If the activity will not result in the discharge of waste to high-quality waters, the Antidegradation Policy does not apply.

73. For the purposes of this Order, constituents/parameters in effluent with the potential to degrade groundwater and/or affect beneficial uses include nitrate/nitrogen, salts (sodium, chloride, EC, FDS, TDS, etc.), and organics. Table 12 below provides a comparison of the anticipated effluent quality, and average water quality results from irrigation and source wells at the Facility collected between 2016 and 2024, as well as nearby well data collected between 1957 to 2020.

Table 12 – Constituents With Potential For Degradation

Parameters	Anticipated Effluent Quality	Up-gradient Nearby Wells	Down-gradient Nearby Wells	Source well (s)	Supplemental Irrigation Well	WQO (reference)
BOD_5(mg/L)	40 - 60	--	--	--	--	---
EC (µmhos/cm)	--	267	228	634	--	700 (Ag) 900 (sMCL)
Chloride (mg/L)	150	15	12	50	--	250 (sMCL)
Sodium (mg/L)	200	45	54	60	--	69 For ag from Ayers & Wescott
TDS (mg/L)	1,200	225	174	320	200	500
FDS (mg/L)	730	--	--	177	110	--
Nitrate as N (mg/L)	60 - 75	4.6	5.2	6.7	3.6	10 (MCL)

Parameters	Anticipated Effluent Quality	Up-gradient Nearby Wells	Down-gradient Nearby Wells	Source well (s)	Supplemental Irrigation Well	WQO (reference)
Total Nitrogen (mg/L)	60 - 85	--	--	--	--	--
Iron (mg/L)	--	<0.001	0.033	0.14	--	0.3 (sMCL)
Manganese (mg/L)	--	--	0.0005	0.007	--	0.05 (sMCL)

74. All average constituent values for nearby groundwater satisfy the WQOs. As such, underlying groundwater is considered to be high quality with respect to nitrogen, salinity, and metal constituents.

75. The constituents of concern are discussed in more detail below.

A. **Nitrate** – While some exceedances of the nitrate WQO have been recorded in both upgradient and downgradient wells, the average nitrate concentrations in nearby wells are below the WQO. Observed source and irrigation well quality also indicates that underlying groundwater is good with respect to nitrate. The anticipated nitrogen concentrations in the effluent are as much as 7.5 times greater than 10 mg/L and, therefore, the discharge of nitrogen has potential to impact underlying groundwater for nitrate. However, the Discharger has completed wastewater treatment upgrades at the Facility and increased the LAA to mitigate nitrate impacts to underlying groundwater.

Instead of using percolation/evaporation ponds that discharge wastewater with minimal treatment into the groundwater, the upgraded treatment system is expected to enhance biological waste processes and enable some nitrification/denitrification in the bioreactors. Additionally, all treatment and storage of wastewater occurs in lined engineered surfaces, and wastewater is proposed to be discharged at agronomic rates to agricultural fields for nitrogen uptake. Based on the nitrogen loading balance provided by the Discharger, the annual nitrogen demand for crops at the LAAs exceeds the amount of nitrogen applied. Accordingly, the Facility and LAA upgrades, together with participation in the Tule Basin Management Zone, will help mitigate the discharge's impact on underlying groundwater, particularly with respect to nitrate.

B. **Salinity (TDS, FDS, EC, Sodium, and Chloride)** - Available groundwater data for the site shows groundwater is high quality with regards to saline constituents. FDS is the non-volatile fraction of TDS that has the potential

to percolate or leach into shallow groundwater, while EC is a measure of the capacity of water to conduct electrical current and is an indicator of salinity. FDS is a conservative measure for salinity in the process wastewater and is approximately 61 percent of the anticipated effluent TDS concentrations. The anticipated effluent FDS concentration is more than double the observed concentrations of FDS in source well. The concentrations of TDS and FDS observed in average process wastewater exceed the receiving water concentrations and, therefore, the discharge may degrade receiving water with regard to salinity.

C. **Organics** - As discussed in previous Findings, overapplication of wastewater with high BOD concentrations could result in reducing conditions that have the potential to mobilize metals, such as iron, manganese, and arsenic in soils and impact groundwater. The influent and effluent wastewater for years prior to 2025 generally consisted of high levels of organic material. The average effluent BOD_5 concentration for 2020 to 2024 was 1,735 mg/L. However, as a result of the completed wastewater treatment upgrades, anticipated effluent BOD_5 quality is now 40 to 60 mg/L. A significant improvement from the Facility's previous discharge. Overall, BOD loading rates to the LAA are predicted to be from 3 to 97 lbs/acre, with the cycle average BOD loading rate ranging from 0.2 to 4.6 lbs/acre/day, which is much less than the cycle average BOD loading rate limit of 100 lbs/acre/day cycle.

Given the expected BOD_5 removal, low cycle average BOD loading values, and sufficient LAA acreage, reducing conditions and potential odor issues can be minimized or avoided. This is further supported by a vadose zone over 200 feet deep. Therefore, groundwater impacts associated with reducing conditions and mobilization of metals in soil are not anticipated as a result of the discharge.

76. The Discharger implements, or will implement, as required by this Order the following measures, which the Central Valley Water Board has determined constitute the Best Practicable Treatment and Control (BPTC). These measures will minimize the extent of water quality impacts resulting from the Facility's discharges:

a. Treatment of the Facility's process wastewater utilizing anaerobic and aerobic treatment, and clarification;

b. Lined containment structures;

c. Wastewater application to LAAs must be at agronomic rates;

d. Compliance with BOD cycle average loading limit of 100 lbs/acre/day;

e. Compliance with a Performance-Based Effluent Limit for FDS;

f. Participation in and compliance with the Salt and Nitrate Control Programs; and

g. Preparation and implementation of a Wastewater and Nutrient Management Plan.

77. The discharge authorized by this Order is consistent with maximum benefit to the people of the state. The Facility contributes to the economic prosperity of the region by providing a service and employment for the local community, including 220 full-time employees, and by providing incomes for numerous aligned businesses, and tax revenues for local and county governments.

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

California Environmental Quality Act

79. In accordance with the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq., the County of Tulare Planning Commission certified and adopted an Initial Study and Mitigated Negative Declaration, including the Mitigation Monitoring and Reporting Program for the Treehouse California Almonds Expansion Project – Special Use Permit No. PSP 23-064 (Project) (SCH: 2024071171) on 13 November 2024. The Central Valley Water Board, as a "responsible agency" under CEQA, evaluated the lead agency's environmental document and determined that no further CEQA review is necessary prior to the issuance of this Order because substantial changes to the project have not been proposed, substantial changes to project circumstances have not occurred, and new information of substantial importance has not arisen (See Pub. Res. Code, § 21166).

80. This Order implements all applicable mitigation and monitoring measures specified in the Treehouse California Almonds Expansion Project – Special Use Permit No. PSP 23-064.

81. To the extent that the construction of any new basins, ponds, surface impoundments, and/or use of existing irrigated lands as new LAAs are authorized under this Order, such features involve minor alterations to land at an existing facility, which are exempt from CEQA procedural requirements pursuant to California Code of Regulations, title 14, sections 15301 and 15304.

Other Regulatory Considerations

Water Code Section 13149.2

82. These WDRs regulate a Facility that may impact a disadvantaged community and/or tribal community and includes an alternative compliance path that allows the Discharger time to come into compliance with certain WQOs (i.e., salinity and nitrate). 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 Discharger has also selected the Management Zone Approach for the Nitrate Control Program, which provides an alternative approach for compliance with the WQO for nitrate. 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. Additionally, the Central Valley Water Board sent a 17 September 2025 letter to potentially impacted disadvantaged and tribal communities for planned program actions, including preparation of this Order, to solicit consultation. Pursuant to Water Code section 13149.2, and as discussed in the following finding, the Central Valley Water Board reviewed readily available information and information raised to the Board by interested persons concerning anticipated water quality impacts in disadvantaged or tribal communities resulting from adoption of these WDRs. The Board also considered environmental justice concerns within the Board's authority and raised by interested persons with regard to those impacts.

83. The Central Valley Water Board anticipates that the issuance of these WDRs will result in water quality impacts within the scope of the Board's authority. Specifically, these WDRs authorize the discharge of wastewater with salinity and nitrogen concentrations that may cause degradation or exceedances of applicable WQOs in the near-term. The BPTC measures required by this Order, as described above, are intended to minimize and, in the longer term, mitigate the impacts of the Facility's discharges to nearby disadvantaged communities in Madera County. Although this Order may result in limited increases to salinity and nitrogen concentrations in groundwater in the near-term, the Salt and Nitrate Control Programs are intended to achieve long-term balance and restoration, where possible, of salt- and nitrogen-impacted groundwater basins across the region.

Human Right to Water

84. Pursuant to Water Code section 106.3, subdivision (a), it is "the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary

purposes." Although this Order is not subject to Water Code section 106.3, as it does not revise, adopt, or establish a policy, regulation, or grant criterion, (see section 106.3, subd. (b)), it nevertheless promotes the policy by requiring discharges to meet MCLs for drinking water (excluding salinity), which are designed to protect human health and ensure that water is safe for domestic use. For salinity and nitrate, this Order requires compliance with the Salt and Nitrate Control Programs. Although the Basin Plans' Exceptions Policy for Salinity, Nitrate, and/or Boron allows participants in this Program to obtain limited-term exceptions from MCLs for salinity, this Program is consistent with the Human Right to Water Policy because its over-arching management goals and priorities include short-term provision of safe drinking water to impacted users and long-term restoration of impacted groundwater basins and sub-basins where reasonable, feasible, and practicable.

Threat-Complexity Rating

85. For the purposes of California Code of Regulations, title 23, section 2200, the Facility has a threat and complexity rating of **2-B** as defined below:

    a. Threat Category "2" – Those discharges of waste that could impair the designated beneficial uses of the receiving water, cause short-term violations of water quality objectives, cause secondary drinking water standards to be violated, or cause a nuisance.

    b. Complexity Category "B" – Any discharger not included in Category A that has physical, chemical, or biological treatment systems (except for septic systems with subsurface disposal), or any Class II or Class III Waste Management Units.

Title 27 Exemption

86. This Order, which prescribes WDRs for discharges of nonhazardous wastewater to land, is exempt from the prescriptive requirements of California Code of Regulations, title 27 (Title 27), section 20005 et seq. (See Title 27, § 20090, subd. (b).)

Storm Water

87. State Water Board Order 2014-0057-DWQ (NPDES General Permit CAS000001) specifies WDRs for discharges of storm water associated with industrial activities and requires submittal of a Notice of Intent from all affected industrial dischargers. Activities at the Facility fall under the Standard Industrial Classification (SIC) Code 0723 for Crop Preparation for Market. Water associated with industrial activities will not be allowed to discharge off-site or into surface waters. Based on SIC Code and management of the water, enrollment, and coverage under General Order 2014-0057-DWQ is not required at this time.

Scope of Order

88. This Order is strictly limited in scope to those waste discharges, activities, and processes described and expressly authorized herein. This Order is also strictly limited in applicability to those individuals and/or entities specifically designated herein as "Discharger."

89. 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 and/or timing of waste discharges authorized herein, without filing a new RWD per Water Code section 13260.

90. Failure to file a new RWD before initiating material changes to the character, volume or timing of discharges authorized herein shall constitute an independent violation of these WDRs.

Procedural Matters

91. All of the above and the supplemental information in the attached Information Sheet, was considered by the Central Valley Water Board in prescribing the WDRs set forth below.

92. The Discharger, interested agencies, and 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. (Wat. Code, § 13167.5.)

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

94. The Central Valley Water Board will review and revise the WDRs in this Order as necessary.

REQUIREMENTS

IT IS HEREBY ORDERED that pursuant to Water Code sections 13263 and 13267 WDRs Order R5-2018-0066 is rescinded (except for enforcement purposes) and that the Discharger and its agents, successors, and employees shall comply with the following:

A. Standard Provisions

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

B. Discharge Prohibitions

1. Discharge of waste to surface waters or surface water drainage courses is prohibited.

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

3. Bypass or overflow the Facility’s wastewater treatment and containment structures in prohibited.

4. 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

    b) Conditions of “nuisance” or “pollution,” as defined per Water Code section 13050.

5. Discharge of waste at a location or in a manner different from that described in the Findings is prohibited.

6. Discharge of process wastewater to the domestic wastewater treatment system is prohibited.

7. Discharge of domestic wastewater to the LAAs is prohibited.

8. Storage of residual solids on areas not equipped with a means to prevent storm water infiltration, or a paved leachate collection system, is prohibited.

C. Conditional Discharge Prohibitions

1. During Phase I of the Salt Control Program, the Discharger is prohibited from discharging salts at concentrations exceeding the salinity numeric value of 700 µmhos/cm (as a monthly average) and 900 µmhos/cm (as an annual average) unless the Discharger is implementing the Phase I requirements of the Salt Control Program Alternative Permitting Approach (i.e., full participation in the P&O Study).

2. The Discharger is prohibited from discharging nitrate and other forms of nitrogen speciation (e.g., total inorganic nitrogen and total Kjeldahl nitrogen) unless the Discharger is implementing the requirements of the Nitrate Control Program Management Zone Approach.

D. Flow Limitation

1. Discharges of process wastewater (measured at EFF-001) shall not exceed the following:

Flow Limitations

Flow Measurement	Flow Limit
Maximum Monthly Average Flow	150,000 GPD
Total Annual Flow (1 January through 31 December)	46.8 MGY

E. Performance-Based Salinity Limit

1. To comply with the Salt Control Program, the Discharger has selected the Alternative Salinity Permitting Approach (i.e., Path 2, participation in the P&O Study). Therefore, as discussed in the Findings, these WDRs establish a performance-based annual effluent limitation for FDS of **950 mg/L**. As required per the MRP, the Discharger shall evaluate the annual average effluent FDS concentration in the discharge [monitored at EFF-001] with this performance-based salinity limit.

F. Discharge Specifications

1. Waste discharges shall remain within the permitted waste treatment/ containment structures and LAAs at all times.

2. All treatment systems and equipment shall be maintained and operated to optimize discharge quality.

3. All wastewater and/or wastewater solids shall be contained in or stored on an engineered lined surface. The engineered lined surface shall meet a hydraulic conductivity standard of 1×10^{-6} centimeters per second or less using one of the following:

   a. A compacted clay liner, with a minimum clay thickness of two feet.

   b. A Portland cement concrete liner, designed to minimize cracking and infiltration.

   c. A synthetic liner, consisting of a 40 thousandths of an inch (mil) synthetic geomembrane or a 60-mil high-density polyethylene liner installed over a prepared base or a secondary clay or concrete liner.

d. An equivalent engineered alternative.

The Discharger shall regularly inspect the condition of the engineered liner(s) to ensure the integrity of the liner is maintained and leakage is minimized. Necessary repairs shall be completed within a reasonable timeframe consistent with the severity of the impairment and potential impact to water quality.

4. If leachate generated in the LCRS in the effluent storage ponds begins to exceed the Action Leakage Rate (ALR), the Discharger shall take actions to inspect and repair the primary liner system, if necessary. For the Facility's anaerobic and aerated ponds, the ALR is 0.3 gpm and 1.2 gpm for the effluent storage pond. To ensure compliance with Discharger Specification F.3, if the ALR is exceeded for any pond liner, the Discharger shall provide a workplan that discusses how the Discharger intends to address the pond liner leak(s) in a timely manner. This workplan shall be submitted within sixty (60) days of identifying the ALR exceedance.

5. Objectionable odors shall not be perceivable beyond the limits of the Facility property where the waste is generated, treated, and/or discharged at an intensity that creates or threatens to create nuisance conditions. As a means of ensuring compliance with this discharge specification, the Discharger shall comply with the following:

   a. The dissolved oxygen (DO) content in the upper one foot of the effluent storage pond (ESP-001) shall not be less than 1.0 mg/L for three consecutive sampling events. Notwithstanding the DO monitoring frequency specified in the monitoring and reporting program, if DO concentrations in the pond(s) are below 1.0 mg/L for any three consecutive sampling events and objectionable odors are perceivable beyond the property limits, the Discharger shall report the findings to the Central Valley Water Board in writing within 10 days and shall include a specific plan to resolve the odors within 30 days of the first date of violation.

6. 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.

7. The Discharger shall design, construct, operate, and maintain all ponds/basins sufficiently to protect the integrity of containment dams and berms and prevent overtopping and/or structural failure. Unless a California-registered civil engineer certifies (based on design, construction, and conditions of operation and maintenance) that less

freeboard is adequate, the operating freeboard in any containment structure shall never be less than two feet (measured vertically from the lowest possible point of overflow). As a means of management and to discern compliance with this requirement, the Discharger shall install and maintain in each pond, basin, or wet well a permanent gauge with calibration marks that clearly show the water level at design capacity and enable determination of available operational freeboard.

8. On or about **1 October** of each year, available capacity shall at least equal the volume necessary to comply with Discharge Specifications F.6 and F.7.

9. All ponds, pits, 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.

10. Newly constructed or rehabilitated berms or levees (excluding internal berms that separate or control the flow of water) shall be designed and constructed under the supervision of a California registered civil engineer.

11. The Discharger shall monitor residual solids accumulation in the ponds/basins annually and shall periodically remove solids as necessary to maintain adequate storage capacity.

G. Land Application Area Specifications

For the purposes of this Order, “land application area” or “LAAs” refers to the discharge areas described in the Findings and shown in **Attachment B**.

1. Crops shall be grown on the LAAs. Crops shall be selected based on nutrient uptake, consumptive use of water, irrigation requirements to maximize crop uptake of nutrients.

2. Application of waste constituents to the LAAs shall be at reasonable agronomic rates to preclude creation of nuisance or unreasonable degradation of groundwater, considering the crop, soil, climate, and irrigation management system. The annual nutritive loading of the LAA, including the nutritive value of process wastewater, supplemental irrigation water, organic and chemical fertilizers, and screened solids shall not exceed the annual crop demand.

3. BOD loading to the LAAs, calculated as a cycle average as determined by the methods described in the MRP, shall not exceed **100 pounds per acre per day**.

4. The Discharger shall ensure that all water is applied and distributed with reasonable uniformity across each LAA block. The perimeter of the LAAs shall be graded to prevent ponding along public roads or other public areas and prevent runoff or overspray onto adjacent properties not owned or controlled by the Discharger.

5. Wastewater from the Facility shall not be applied within:

    a. 50 feet of a domestic water supply well,

    b. 50 feet from any surface water or surface water drainage course, or

    c. 25 feet from a property line or public right-of-way unless the irrigation system is designed to prevent runoff or overspray, in which case a minimum setback of 5 feet shall be maintained.

6. Hydraulic loading of combined wastewater and supplemental irrigation water shall be managed to:

    a. Provide water only when water is needed and in amounts consistent with crop needs;

    b. Maximize crop nutrient uptake;

    c. Maximize breakdown of organic waste constituents in the root zone; and

    d. Minimize the percolation of waste constituents below the root zone.

    The Central Valley Water Board recognizes that some leaching of salts is necessary to manage salt in the root zone of the crops. Leaching shall be managed to minimize degradation and maintain or reduce, to the extent practicable, concentrations of saline constituents and nitrate (and other forms of nitrogen speciation) in receiving waters.

7. The resulting effect of the discharge on soil pH shall not exceed the buffering capacity of the soil profile.

8. Land application of wastewater shall be managed to minimize erosion.

9. The LAAs shall be managed to prevent breeding of mosquitos. More specifically:

    a. All applied irrigation water must infiltrate completely within 48 hours;

    b. Ditches not serving as wildlife habitat should be maintained free of emergent, marginal, and floating vegetation; and

    c. Low-pressure and unpressurized pipelines and ditches accessible to mosquitos shall not be used to store process wastewater.

10. Irrigation of the LAAs shall occur only when appropriately trained personnel are on duty.

11. Discharge to the LAAs shall not be initiated when the ground is saturated (e.g., during or after significant precipitation).

12. Any irrigation runoff (i.e., tailwater) shall be confined to the LAA, captured in the tailwater pond and recycled to the LAA or returned to the process wastewater treatment system, and shall not enter any surface water or surface water drainage course.

13. The LAA shall be inspected periodically to determine compliance with the requirements of this Order. If an inspection reveals noncompliance or threat of noncompliance with this Order, the Discharger shall temporarily stop land application use immediately and implement corrective actions to ensure compliance with this Order.

H. Groundwater Limitations

Release of waste constituents of the combined or individual waste streams from any treatment, storage, delivery system, or LAA associated with the Facility's discharges shall not cause or contribute to groundwater containing constituent concentrations in excess of the concentrations specified below or natural background groundwater quality, whichever is greater:

1. Constituents in concentrations that exceed either the Primary or Secondary MCLs established in Title 22 of the California Code of

Regulations, excluding salinity provided the Discharger complies with the Salt Control Program (see Conditional Prohibitions C.1).

2. Contain taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses, (e.g., by creating off-tastes and/or odor, producing detrimental physiological responses in human, plant, animal, or aquatic life [i.e., toxicity]).

I. Solids Disposal Specification

1. For the purpose of this Order, residual solids include organic matter removed by screens and filters and soil sediments removed during the treatment process. Residual solids mean organic processing byproducts such as leaves, twigs, hulls and shells, that will not be subject to treatment prior to disposal.

2. Residual solids shall be removed from screens, pits, and ponds as needed to ensure optimal operation, prevent nuisance conditions, and maintain adequate storage capacity.

3. Any handling and storage of solid waste and residual solids shall be 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, solid waste and residual solids shall be disposed of in a manner 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 Quality Control Board) will satisfy this specification.

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

J. Provisions

1. The Discharger shall comply with the separately issued **Monitoring and Reporting Program Order (MRP) R5-2025-XXXX**, and any revisions thereto as ordered by the Central Valley Water Board or the Executive Officer. The submittal dates of Discharger self-monitoring reports shall be no later than the submittal date specified in the MRP.

2. A copy of this Order (including the 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 its contents.

3. The Discharger shall comply with the applicable provisions of the Salt and Nitrate Control Programs adopted in Resolution R5-2018-0034 (as revised per Resolution R5-2020-0057), as part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative, to address ongoing salt and nitrate accumulation in the Central Valley.

4. The Discharger shall participate in the Tule Basin Management Zone Nitrate Control Program activities. This includes collaborating with the Management Zone to collect the necessary monitoring data to refine the MZIP preliminary nitrogen load estimate and support development of the Management Zone Groundwater Protection Values and Groundwater Protection Targets.

5. Per the Tule Basin Management Zone MZIP, the Discharger is identified as a Group 3 discharger. Upon approval of the MZIP the Discharger will be required to submit a Nitrate Reduction Workplan. Details regarding the timeline for submitting the Work Plan will be included in a future amendment.

6. **By 1 July 2026**, the Discharger shall submit an updated **Operations and Maintenance Plan (O&M Plan)** that describes monitoring, operation, and maintenance of the double-lined ponds at the Facility and the overall wastewater treatment facility. The O&M Plan shall include triggers and conceptual plan(s) for installing covers over Anaerobic Ponds 1 and 2 to mitigate odors, as necessary.

7. By **14 December 2026**, the Discharger shall submit an updated **Wastewater and Nutrient Management Plan** that includes a description how the Discharger will manage the LAA and apply wastewater in accordance with these WDRs. At a minimum, the Wastewater and Nutrient Management Plan must include the following:

    a. Procedures for monitoring Facility operations and discharge.

    b. Practicable measures to ensure reasonable even application of wastewater. The Plan shall also detail how the Facility will not discharge wastewater to the LAA when soils are saturated (e.g., during and after significant precipitation events).

c. An action plan to deal with objectionable odors and/or nuisance conditions.

d. Details on how wastewater and irrigation water will be blended (if applicable).

e. A detailed map of the LAA fields to be used each year to facilitate tracking annual wastewater application and nutrient release to the land.

f. Management practices that will ensure that wastewater, irrigation water, and fertilizers, compost, or other amendments are applied at agronomic rates to the LAA including but not limited to adjusting wastewater application and spreading based on consideration of soil available nutrients and/or plant tissue sampling results.

8. 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.

9. 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

10. 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.

11. 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 include adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the Discharger when the operation is necessary to achieve compliance with the conditions of this Order.

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

13. 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.

14. In the event that the Discharger reports toxic chemical release data to the State Emergency Response Commission (SERC) pursuant to section 313 of the Emergency Planning and Community Right to Know Act (42 U.S.C. section 11023), the Discharger shall also report the same information to the Central Valley Water Board within 15 days of the report to the SERC.

15. At least 90 days prior to termination or expiration of any lease, contract, or agreement involving disposal or recycling areas or off-site reuse of effluent, used to justify the capacity authorized herein and assure compliance with this Order, the Discharger shall notify the Central Valley Water Board in writing of the situation and of what measures have been taken or are being taken to assure full compliance with this Order.

16. 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.

17. 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 SPRRs 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.

18. In order to secure rescission of WDRs that are no longer necessary because the discharge to land permitted under this Order has ceased, the Discharger must contact the Central Valley Water Board Compliance and Enforcement Unit to coordinate appropriate wastewater treatment, storage, and conveyance closure requirements.

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

ENFORCEMENT

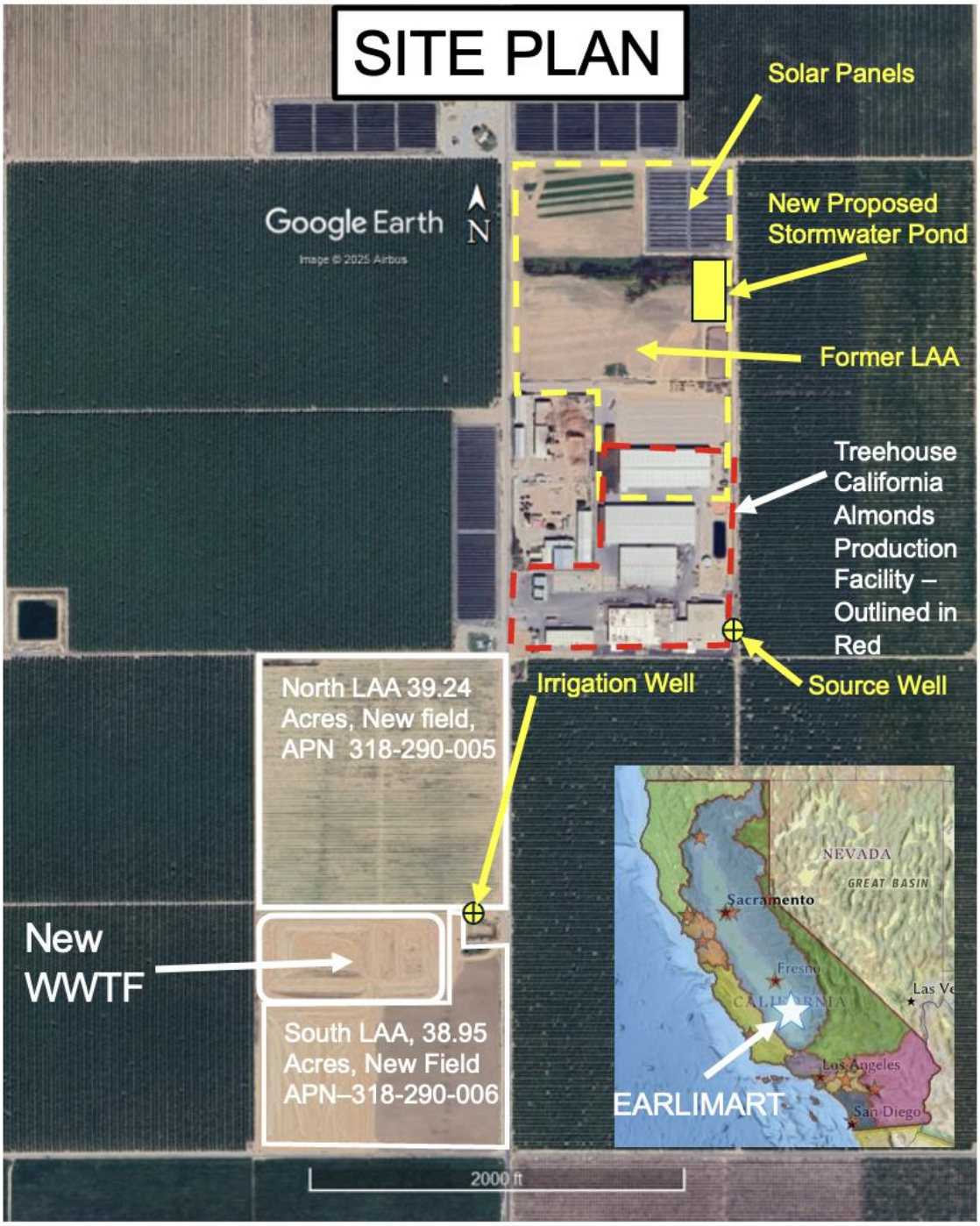
If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. 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 Water Code sections 13268, 13350, and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

ADMINISTRATIVE REVIEW

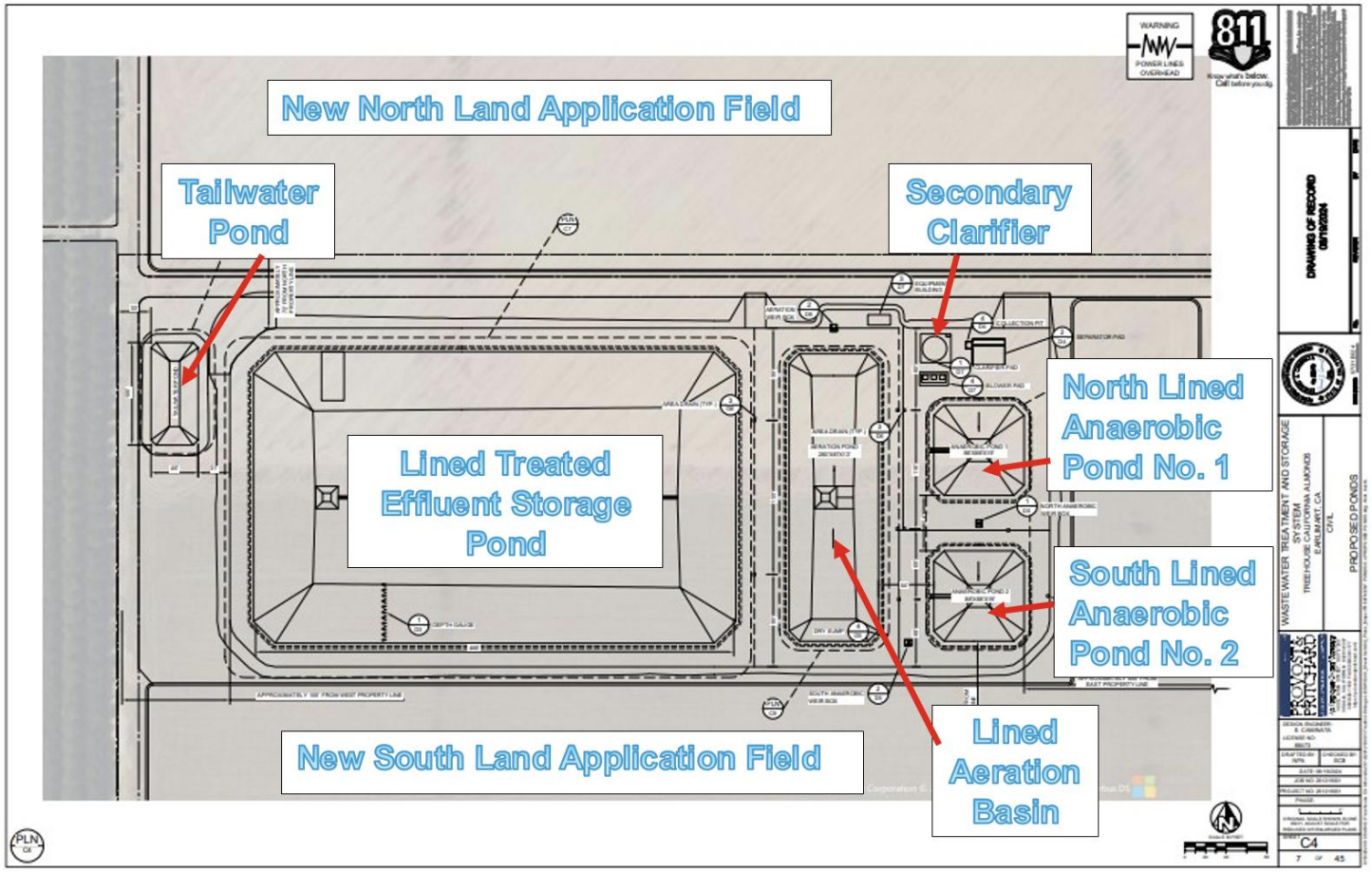
Any person aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. To be timely, the petition must be received by the State Water Board by 5:00 pm on 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 pm on the next business day. Copies of the law and regulations applicable to filing petitions are available on the State Water Board website (http://www.waterboards.ca.gov/public_notices/petitions/water_quality). Copies will also be provided upon request.

ATTACHMENT A – SITE LOCATION MAP

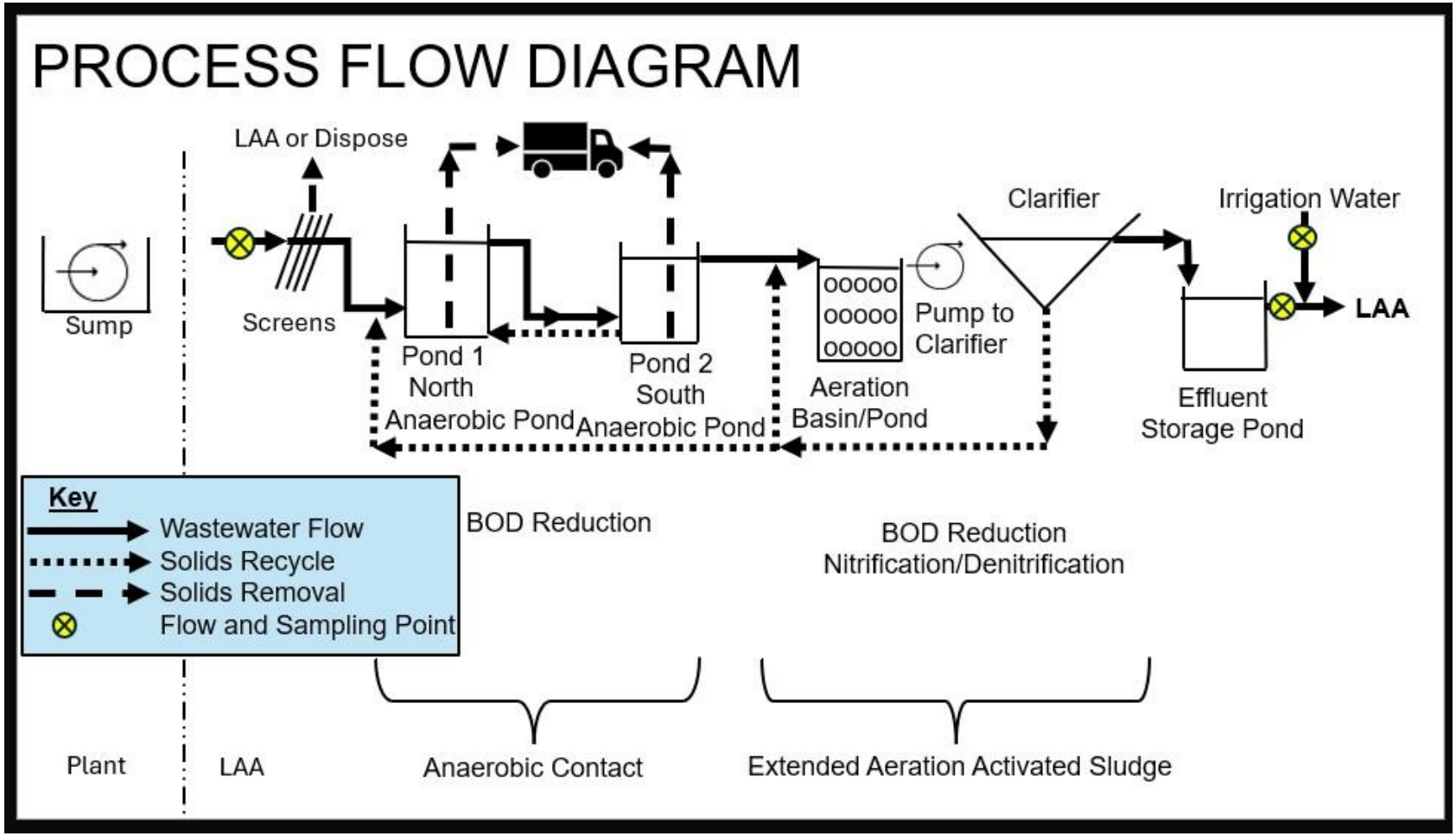
ATTACHMENT B – SITE PLAN MAP



ATTACHMENT C –FACILITY MAP



ATTACHMENT D – PROCESS FLOW DIAGRAM



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TENTATIVE Waste Discharge Requirements Order R5-2025-XXXX
For
Treehouse California Almonds, LLC
Earlimart Almond Processing Facility
Tulare County

INFORMATION SHEET

Background

On 7 June 2023, Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff received a Report of Waste Discharge (RWD), from Treehouse California Almonds, LLC (Discharger) requesting an increase in their wastewater permitted flow. The RWD described proposed changes in the treatment and discharge (additional land application area) of process wastewater for the Earlimart Almond Processing Facility (Facility). The Facility is located at 6914 Road 160, about 4 miles northeast of Earlimart in Tulare County (Attachment A – Site Location Map).

The Discharger owns the Facility, the land where the Facility is located, and the current and proposed land application area (LAA) where the treated wastewater is applied. The discharge was previously regulated by Waste Discharge Requirements (WDRs) Order R5-2018-0066, which authorized the average daily discharge of 0.04 million gallons per day (MGD) to five percolation/evaporation ponds and a 38-acre LAA.

The RWD included a signed Form 200, and a Technical Report prepared by Provost & Pritchard Consulting Group (P&P). The Technical Report was signed and stamped by California Registered Civil Engineers Ed Caminata (RCE 88473) and Jerry Teng (RCE 68783), as well as D. Ryan Dodd (CPSS, CPAg, CCA, TSP), a certified soil scientist, agronomist, and crop adviser. A revised copy of the RWD with additional information was provided on 27 June 2023. The RWD also included a Tier 1 Pond Design Report, Construction Quality Assurance Plan (CQA Plan), and Operation and Maintenance Plan (O&M Plan) for proposed wastewater treatment and storage ponds. The Tier 1 Pond Design Report was signed and stamped by Edward Caminata. A 27 September 2024 Construction Quality Assurance Report – New Treatment Ponds (CQA-NTP) prepared, stamped, and signed by Nicholas P. Austin (RCE 96475) was submitted on 7 October 2024. The CQA-NTP certifies that the CQA Plan was appropriately implemented, and the construction of the new treatment ponds was conducted in accordance with the project plans and specifications.

Facility and Discharge Description

Shelled raw almonds are trucked to the Facility from various local nut hullers for further processing, including washing, blanching, slicing, crushing, and dry roasting. Almonds are processed at the Facility year-round for use by other food industries. With proposed Facility upgrades, the Discharger estimates wastewater production will be up to 46.8

million gallons per year. Wastewater generated at the Facility is primarily from blanching and equipment wash-down. Other waste streams generated at the Facility include boiler blowdown, reverse osmosis reject water, scalder drain water, and some stormwater. This Order's Attachment B is a site plan map that depicts the locations of the source water wells, the irrigation well, the new wastewater treatment facility, the new LAA, the former LAA, and the the almond processing/production facility. Parcel numbers associated with the Facility and LAAs are summarized in Finding 4 and Table 1 of the WDRs.

The Discharger experienced a fire in their production area in January 2021, which caused the Discharger to rethink and reprioritize its reconstruction design plans to include an increase in production lines from two to four and, thus an increase in wastewater production.

Previously, wastewater from the Facility drained to one of two sumps where it was combined and screened to remove solids then discharged to a series of five unlined ponds. The first pond was equipped with two aerators and acted as a treatment pond. From the first pond, the wastewater could then be discharged to the remaining evaporation/percolation ponds or to the 38-acre LAA.

According to the RWD, wastewater from the Facility is collected in drains and sent to a single wastewater collection sump. From the sump, wastewater is pumped to the new wastewater treatment area facility southwest of the almond processing/production facility. At the wastewater treatment area (Attachment D), the wastewater is screened to remove solids before being discharged into the wastewater treatment system.

Following screening, wastewater gravity flows to two serial, anaerobic, mixed, lined ponds (anaerobic contact system - Anaerobic Pond Nos. 1 and 2). After the anaerobic contact system, wastewater is treated in an extended aeration activated sludge system (EAAS). In the EAAS system the wastewater is aerated via fine bubble diffusers in the lined Aeration Pond/Basin, then sent to the clarifier, and then ultimately sent to the lined, effluent storage pond. The effluent storage pond has a storage capacity of 17.1 million gallons (with 2 feet of freeboard) and provides approximately 120 days of storage at the monthly average flow rate of 150,000 gpd. The effluent storage pond may also receive stormwater from a portion of the Facility, which is discussed further in the Water Balance section. The Discharger is considering not sending any storm water to the effluent storage pond.

Treated effluent from the storage pond is then applied to a 66-acre land application area that is rotated with corn and winter forage crops. Irrigation water is blended with treated effluent from the storage pond in standpipes downstream of the storage pond and prior to application at the LAA.

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Domestic wastewater generated at the facility is separate from the process wastewater and regulated separately by the county.

Solids collected from equipment within the almond processing facility (culls, skins, almond pieces, etc.) will be hauled off-site for use as cattle feed. Solids removed from the wastewater at the influent screens are collected on a concrete pad, surrounded by a raised concrete border, will either be hauled off-site for cattle feed or land applied on the LAA at agronomic rates.

Solids within the wastewater treatment system are recycled in a couple of ways. A mixing pump draws water and anaerobic solids from the bottom of Anaerobic Pond 2 and discharges to the bottom of Anaerobic Pond 1 and Anaerobic Pond 2, causing both those ponds to become mixed bioreactors. Solids are also recycled from the clarifier to Anaerobic Pond 1 and the Aeration Basin/Pond in the extended aeration activated sludge component of the system.

There is no treatment solids storage area at the Facility and all solids are collected in tanker trucks for offsite disposal. If covers are not installed for the anaerobic ponds biological solids are removed from bioreactor system at both anaerobic ponds using pond cleaning equipment (e.g. an agitator pump).

The two anaerobic ponds are designed to allow for installation of a cover to control odors, if necessary, and prevent nuisance odors from impacting neighboring properties. If covers are installed over the anaerobic ponds, solids may be removed from Anaerobic Pond 2 via the mixing pump to a transport truck for offsite disposal. Anaerobic Pond 1 contains a separate, dedicated pipe that allows water/solids to be sucked from the bottom of the lined pond and deposited in a tanker truck for offsite disposal.

The overall dimensions of the new anaerobic (two), aerobic, and effluent storage ponds are summarized in Table 2 of the WDRs. The volumes presented in Table 2 do not include the two feet of freeboard in each pond and only reflect the working capacity of the ponds. Each of the wastewater treatment ponds and the storage pond is double-lined and contains a leachate collection removal system (LCRS). The double liners are constructed with 60-mil high density polyethylene HDPE, and contain middle 175-mil geonet layer. There is also a vent system beneath the layers of liner material to allow for gases to escape without causing a bubble underneath the liner. The design also includes a pan lysimeter to monitor for potential leakage through the LCRS.

Groundwater Considerations

Groundwater conditions are discussed in Findings 39 through 44

INFORMATION SHEET
Antidegradation

Antidegradation analysis and conclusions are discussed in Findings 71 through 78 of the Order.

Discharge Prohibitions, Effluent Limitations, Discharge Specification, and Provisions

This Order establishes a monthly average flow limit of 0.15 MGD, and an annual flow limit of 46.8 million gallons as measure at EFF-001. This Order also specifies an annual Performance-Based Salinity Limit of **950 mg/L for FDS** as an annual average discharge to the LAA monitored at EFF-001. In addition, this Order prescribes nitrogen loading on the LAA at reasonable agronomic rates and a cycle average BOD loading limit of **100 lbs/acre/day**.

The Order also contains the following provisions including:

- Provisions J.3 and J.4 requiring compliance with the Salt and Nitrate Control Programs.
- Provision J.7 requiring the Discharger to prepare and implement a Wastewater and Nutrient Management Plan.

Groundwater limitations establish that the release of waste constituents from any portion of the Facility shall not cause or contribute to the exceedance of water quality objectives (WQOs) in the receiving water. If the Facility's discharge contains waste at a level greater than a WQO but the groundwater receiving the waste remains below the WQO, the limitation would not be violated. However, if the same discharge contains waste at a level greater than the WQO and causes the receiving water to exceed a WQO, the groundwater limitation would be violated. Similarly, if the same discharge contains waste above the WQO and the receiving water is above the objective, the Facility's discharge would be contributing to an exceedance of the WQO and would be violating the receiving water limitation, if the receiving water natural background concentration is less than the WQO.

In the scenario where the level of waste in the Facility's discharge is below the WQO and the receiving water exceeds the WQO, the limitation would not be violated. Where natural background conditions exceed the WQO, compliance would be evaluated considering the established natural background concentration instead of the WQO. Only discharges causing or contributing to the exceedance of the WQO or natural background concentration (if greater than the WQO) in the groundwater would be in violation of the limitation.

The Basin Plan contains the following in Section 3 Water Quality Objectives:

> "The objectives contained in this plan, and any State or Federally promulgated objectives applicable to the basins covered by the

> plan, are intended to govern the levels of constituents and characteristics in the main water mass unless otherwise designated…"

Any analysis of the above factors to determine exceedances of groundwater limitations would consider this and other guidance from the Basin Plan (e.g., hydrogeologic and background characterization studies, regional groundwater flow and dilution, operation of the facility's groundwater interceptor ditch system, etc.).

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 civil administrative liability where appropriate. The Order includes monitoring requirements for wastewater, treatment ponds, storage ponds, LAAs, residual solids, irrigation water wells, and source water wells. This monitoring is necessary to characterize the discharge and evaluate any impacts to groundwater and compliance with the requirements and specifications in the Order.

Salt and Nitrate Control Programs Regulatory Considerations

As part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative, the Central Valley Water Board adopted Basin Plan amendments (Resolution R5-2018-0034) incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. These Basin Plan amendments became effective on 17 January 2020 and were subsequently revised by the Central Valley Water Board in 2020 to make targeted revisions required by the State Water Board through adoption of Resolution R5-2020-0057, which became effective 10 November 2021.

For the Salt Control Program, the Discharger (CV-SALTS ID 1984) submitted a Notice of Intent (NOI) selecting the Alternative Approach (Path 2) electing to participate in the Priority and Optimization Study (P&O Study). The Facility is currently in good standing with the Salt Control Program and is up to date on its fees.

The Nitrate Control Program is a prioritized program. The Facility is in the Groundwater Basin 5-022.13 (San Joaquin Valley - Tule Priority Basin), a Priority 1 basin/sub-basin. The Discharger was sent a Notice to Comply letter for the Nitrate Control Program on 29 May 2020. The Discharger selected to join Pathway B, and is a member in good standing with the Tule Basin Management Zone.

The CV-SALTS initiative will result in regulatory changes that will be implemented through conditional prohibitions and modifications to many WDRs regionwide, including the WDRs that regulate discharges from the Facility. More information regarding the

CV-SALTS regulatory planning process can be found at the following link: https://www.waterboards.ca.gov/centralvalley/water_issues/salinity/

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 will change the overall discharge and its potential to impact groundwater, it may be appropriate to reopen the Order.

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.