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CENTRAL VALLEY REGION

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[TENTATIVE] WASTE DISCHARGE REQUIREMENTS ORDER R5-2022-####

ORDER INFORMATION

Order Type(s):	Waste Discharge Requirements (WDRs)
Status:	TENTATIVE
Program:	Non-15
Region 5 Office:	Fresno
Dischargers:	Vita-Pakt Citrus Products Company, City of Lindsay, Edward and Edna Brower Revocable Trust
Site:	Vita-Pakt Lindsay Land Application Area
Facilities Address:	525 Lindmore Street, Lindsay 93247
LAA Location	36.2212°, -119.1634°
County:	Tulare County
CIWQS Place ID:	214599
Parcel Nos.:	197-050-008, 197-050-004, 197-050-005, 197-050-006
Prior Order:	R5-2012-0122

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 _____ June 2022.

PATRICK PULUPA,
Executive Officer

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GLOSSARY

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

Basin Plan.....Water Quality Control Plan for Tulare Lake Basin

bgs.....Below Ground Surface

$BOD_{[5]}$ .....[Five-Day] Biochemical Oxygen Demand at 20° Celsius

BPTC .....Best Practicable Treatment and Control

CEQA.....California Environmental Quality Act, Public Resources Code section 21000 et seq.

CEQA Guidelines.....California Code of Regulations, Title 14, section 15000 et seq.

C.F.R......Code of Federal Regulations

COC[s].....Constituent[s] of Concern

DO.....Dissolved Oxygen

DTSC .....California Department of Toxic Substances Control

DWR.....California Department of Water Resources

EC .....Electrical Conductivity

EIR .....Environmental Impact Report

FDS .....Fixed Dissolved Solids

FEMA .....Federal Emergency Management Agency

IPP .....Industrial Pretreatment Program

LAA.....Land Application Area

GLOSSARY

lbs/ac/yr.....Pounds per Acre per Year

µg/L.....Micrograms per Liter

µmhos/cm .....Micromhos per Centimeter

MG[D] .....Million Gallons [per Day]

mg/L.....Milligrams per Liter

msl .....Mean Sea Level

MRP .....Monitoring and Reporting Program

MW.....Monitoring Well

MCL .....Maximum Contaminant Level per Title 22

mJ/cm^2 .....Millijoules per Square Centimeter

ORP .....Oxygen Reduction Potential

N.....Nitrogen

ND .....Non-Detect

NE .....Not Established

NM.....Not Monitored

Recycled Water Policy .....*Policy for Water Quality Control for Recycled Water*, State Water Board Resolution 2009-0011, as amended per Resolutions 2013-0003 and 2018-0057

R[O]WD .....Report of Waste Discharge

RCRA.....Resource Conservation and Recovery Act

SPRRs .....Standard Provisions and Reporting Requirements

SU.....Standard pH Units

SERC .....State Emergency Response Commission

TDS.....Total Dissolved Solids

Title 22.....California Code of Regulations, Title 22

Title 23.....California Code of Regulations, Title 23

Title 27.....California Code of Regulations, Title 27

TKN.....Total Kjeldahl Nitrogen

Unified Guidance.....Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance (USEPA, 2009)

USEPA.....United States Environmental Protection Agency

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

WDRs.....Waste Discharge Requirements

WQO[s].....Water Quality Objective[s]

FINDINGS

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

Introduction

1. As discussed in subsequent Findings, Vita-Pakt Citrus Products Company (Vita-Pakt), the City of Lindsay (Lindsay), and the Edward and Edna Brower Revocable Trust (Trust) either own and/or operate the Vita-Pakt Lindsay Land Application Area (LAA). The LAA is on the southwest corner of Road 188 and Avenue 240 in Tulare County, Section 4, T20S, R26E, MDB&M. A Vicinity Map and LAA are included in **Attachment B** and **Attachment C**, respectively.

2. Citrus processing wastewater is discharged to the LAA from two plants on property owned by Vita-Pakt at 525 Lindmore Street in Lindsay. One plant (South Plant) manufactures orange juice concentrate. The second adjoining plant (North Plant) processes fresh kiwi and citrus peels for purees and marmalades. The South Plant and North Plant are collectively referred to as Plants in these Waste Discharge Requirements (WDRs).

3. The LAA consists of four contiguous parcels, which total approximately 281 acres as shown in Attachment A. The eastern center parcel, APN 197-050-005 is owned by Vita-Pakt. The other three parcels APN 197-050-008, 197-050-004 and 197-050-006 are owned by the Edward and Edna Brower Revocable Trust. The City of Lindsay signed a long-term lease agreement with the Trust to discharge citrus wastewater to the LAA through 30 April 2060. In accordance with its lease agreement, the Trust manages the farming operation within the entire LAA (including the parcel that is owned by Vita-Pakt), including blending and distribution of wastewater, as well as planting and harvesting of the crop.

4. The citrus processing wastewater is transported from the Plants to the LAA by a pipeline that is owned and operated by the City of Lindsay.

5. Vita-Pakt, the City of Lindsay; and the Trust are collectively referred to as Discharger(s) and are responsible for compliance with the WDRs prescribed herein.

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

   a. Attachment A – VICINITY MAP

   b. Attachment B — SURROUNDING LAND USES (PRESENT AND HISTORICAL)

c. Attachment C – LAA MAP

d. Attachment D – PROCESS FLOW DIAGRAM

e. Attachment E – WASTEWATER GENERATION DIAGRAM

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

g. Information Sheet

7. Also attached is **Monitoring and Reporting Program R5-2022-####** (MRP), which requires monitoring and reporting for discharges regulated under these WDRs. The Discharger shall comply with the MRP and subsequent revisions thereto as ordered by the Executive Officer.

8. WDRs are needed for this LAA to ensure the discharge will comply with water quality plans and policies.

Regulatory History

9. The discharge of citrus processing wastewater to the LAA has been ongoing since 1985. Waste Discharge Requirements (WDRs) Order 85-203 regulated the discharge until 2012. Since 2012, the Facility has operated under WDRs Order R5-2012-0122. WDRs Order R5-2012-0122 authorized a discharge flow of up to 0.45 mgd (as a monthly average) to 216 acres. The Findings in WDRs Order R5-2012-0122 characterize an annual discharge of 120 million gallons to the LAA.

10. On 21 July 2020, the Discharger submitted a Report of Waste Discharge (RWD) requesting to increase the permitted flow to 0.9 mgd (total annual volume of 195 million gallons) to be spread on 251 acres. In a 26 August 2020 review letter, Central Valley Water Board staff determined the July 2020 RWD was incomplete and additional information was needed. Supplemental information was supplied to the Central Valley Water Board Staff on 23 October 2020, 8 January 2021, and additional dates. The 23 October 2020 letter proposed adding 30 acres more of LAA, expanding the proposed total LAA to 281 acres.

11. Flows to the LAA have increased in recent years. Since January 2018, the effluent monthly average flow rate has equaled or exceeded the 0.45 mgd monthly average flow limitation, specified in WDRs Order R5-2012-0122, eight times. However, in the October 2021 response, the Discharger stated that the flows requested in the July 2021 RWD were, at least partially, related to future plans to increase production. In subsequent correspondences between Central

Valley Water Board staff and the Discharger, the Discharger agreed to be permitted at existing flows, specifically 0.71 mgd (as a monthly average) (February 2019) and 152 million gallons annually (2019). Therefore, these WDRs only authorize flows reflecting existing operations at the Plants. The Discharger will need to submit a revised RWD to increase the WDR flow limitations and CEQA will need to be addressed for any Plant expansion.

Facility and Discharge

12. Wastewater generated from the Plants is screened, collected, and discharged via a six-mile-long pipeline to two unlined holding ponds at the LAA. Solids removed from the screens are collected and sold as cattle feed. A process flow diagram is included in **Attachment D**.

13. The total annual wastewater flows to the LAA are shown in Table 1. For January 2018 through December 2021, the overall monthly average wastewater flow was 0.28 million gallons per day.

Table 1 – Annual Wastewater Flows

Year	Annual Flow (Million Gallons)
2018	123
2019	152
2020	71
2021	58

14. Wastewater discharged to the LAA consists of condensate from juice concentrate evaporators, refrigeration cooling water, and wash water. The following table presents wastewater quality data for the discharge collected from January 2019 through December 2021.

Table 2 – Effluent Wastewater Quality (January 2019-December 2021)

Constituent	Units	Minimum	Maximum	Average (# of samples)
pH	su	2.7	12.9	3.9 (118)
EC	µmhos/cm	94	25,600	2,458 (129)
TDS	mg/L	180	20,800	4,602 (29)
FDS	mg/L	13	4,260	940 (30) (See 1 below)
BOD	mg/L	1	24,000	7,195 (32)
Nitrate as N	mg/L	0.2	7.2	2.6 (31)

Constituent	Units	Minimum	Maximum	Average (# of samples)
TKN	mg/L	0.25	488	102 (29)
Ammonia-N	mg/L	0.25	54.3	3.6(31)
Total Nitrogen	mg/L	0.25	490	104 (29)

1. 17 June 2021 FDS reading of 13,200 mg/L was not included in the average calculation as it appears to have been a statistical outlier.

15. The salinity concentrations for the past few years (listed in Table 2 above) show the Plants' effluent discharge has increased compared to the values listed in R5-2012-0122 for 2006 through 2011. For example, the average EC value for 2006 through 2011 was 1,600 µmhos/cm compared to 2,458 µmhos/cm and the average TDS for 2006 through 2011 was 2,700 mg/L versus 4,602 mg/L. Vita-Pakt attributes the increase in salinity to their ongoing efforts to conserve water (e.g., recycling the rinse water) and decrease use of the evaporator (i.e., less clean water condensate produced). Also, as discussed in the next finding, it appears that the Plants' source water quality salinity has increased over the past decade. As discussed in greater detail below, the Discharger selected to participate in the Prioritization and Optimization (P&O) Study for the Salt Control Program. Therefore, these WDRs include a performance-based effluent limitation.

16. Source water for the Plants is provided by the City of Lindsay and is predominantly treated surface water from the Friant-Kern Canal. Groundwater from three municipal supply wells may be used to supplement supply during times when the demand is high (summer months) or when the canal is shut down for maintenance. Based on available data, it appears the Plant's source water salinity concentrations have increased since 2010. The Information Sheet for WDRs Order R5-2012-0122 listed the following source water concentrations/levels (from the City's 2010 Consumer Confidence Report): EC of 573 µmhos/cm, TDS of 285 mg/L, and nitrate (as N) of 2.9 mg/L. The City's 2020 Consumer Confidence Report reported the following concentrations: EC of 1,055 µmhos/cm, TDS of 647 mg/L, and nitrate (as N) of 3.2 mg/L.

17. Per WDRs Order R5-2012-0122, the Discharger submitted a Salinity Control Plan, dated 19 December 2013. The plan provides an overview of sources of salt, salt use, and wastewater generation at the citrus processing facilities and develops site-specific, best practices to reduce salinity in the wastewater from the citrus processing facilities.

18. The wastewater is held in the holding ponds and then blended with irrigation water at a ratio of approximately one part wastewater to four parts irrigation water prior to application on the LAA. The blended water is applied to the fields via flood irrigation

19. Domestic wastewater generated at the Plants is discharged separately to the City of Lindsay's Wastewater Treatment Facility.

20. Stormwater from the Plants is collected in an on-site pond where it either percolates/evaporates or is discharged to the LAA.

Land Application Area (LAA)

21. WDRs Order (R5-2012-0122) authorizes the discharge of process wastewater to 216 acres. The Discharger has added 65 acres (parcel APN 197-050-008) in the RWD to increase the total acreage of the LAA to 281 acres. The newest parcel was previously a dairy (Henry Brower Dairy), which closed in May 2016. In a 12 March 2020 inspection, Central Valley Water Board staff confirmed that all wastewater and residual manure from the former livestock corrals, feed and manure storage areas, and former wastewater retention ponds were removed.

22. The Discharger grows alfalfa and fodder crops such as wheat and corn silage on the LAA.

23. With an average total nitrogen concentration of approximately 104 mg/L, the Plants' annual nitrogen load to the LAA (discharging 152 million gallons/year) would be about 469 lbs/acre/year. This is similar to the annual nitrogen uptake of 480 lbs/acre/year for alfalfa and 425 lbs/acre/year for a double-cropped field of corn and winter wheat (*Western Fertilizer Handbook*, 9th edition). This Order includes a Discharge Specification requiring the application of wastewater and fertilizers to be at reasonable agronomic rates. Calculations show that the Discharger can meet agronomic loading rates for nitrogen with careful irrigation management practices.

24. With an average FDS concentration of approximately 940 mg/L, the Plants' annual FDS load to the LAA (discharging 152 million gallons/year) would be about 4,241 lbs/acre/year.

25. With an average BOD_5 concentration of 7,195 mg/L, the average BOD_5 loading rate to the LAA (for 152 million gallons per year, which averages out to 0.416 million gallons per day) would be about 89 lbs/acre/day. As discussed in further detail in subsequent findings, this Order sets a BOD loading rate limit of 100 pounds per acre per day (calculated as a cycle average) for wastewater applications.

26. Per WDRs Order R5-2012-0122, the Discharger submitted a Nutrient and Wastewater Management Plan, dated 10 September 2013. The plan provides an overview of wastewater monitoring, record-keeping, nutrient balances, nutrient budgets, source water monitoring, and calculations that must take place to properly manage nutrients on the land application areas. This Order requires the Discharger to update the 2013 Nutrient and Wastewater Management Plan to ensure it reflects current LAA operations.

Site-Specific Conditions

Topography, Climate, and Nearby Land Use

27. The Plants and LAA are in an arid climate characterized by hot dry summers and mild winters. The rainy season generally extends from November through April. Occasional rains occur during the spring and fall months but summer months are dry. Based on the United States Weather Service (weather.gov), the 100-year return period (1922-2021) wet year rainfall for Lindsay is 23.33 inches, and the average annual rainfall is 11.73 inches. The California Irrigation Management Information System (CIMIS) database reports an annual average potential evapotranspiration of 58.9 inches for nearby Porterville in 2021.

28. Lewis Creek is the nearest natural surface water feature, approximately one-quarter to one-half mile north of the site. Federal Emergency Management Agency (FEMA) zone maps FEMA Flood Zone Maps (https://www.floodprice.com/fema-flood-zone-map) (publication date 13 October 2021) shows that a portion (approximately 60% to 65%) of the LAA is within Flood Zone X with a 0.2 Percent Annual Chance of Flood Hazard. Flood control features on the nearby Lewis Creek and berms placed around the LAA are intended to prevent inundation or runoff from the LAA.

29. United States Department of Agriculture Natural Resources Conservation Service (NRCS) soil survey maps characterize approximately the top six feet of soil. Soils within the LAA are primarily Quonal-Lewis Association (QAL) (approximately 90%) and Flamen loam (approximately 10%). QAL soils are classified as farmland of statewide importance. QAL soils are moderately well-drained with 0 to 2% slopes. The capacity of the most limiting layer of these soils to transmit water is 0.01 to 0.06 inches per hour. The frequency of flooding is very rare. Flamen loam is moderately well drained with 0 to 2% slopes. Flamen loam is classified as prime farmland, if irrigated and either protected from flooding or not frequently flooded during the growing season. The capacity the most limiting layer of these soils to transmit water is 0.06 to 0.2 inches per hour. The frequency of flooding is very rare.

30. The LAA is generally surrounded by agricultural land. According to a 2018 statewide crop mapping shown in the California Department of Water Resources Land Use Viewer (gis.water.ca.gov/app/CADWRLandUseViewer), primary crops grown in the area include citrus, field crops, pasture, deciduous fruit & nuts, and grain and hay.

31. The former Lindsay Olive Growers Plant (1916 -1992) discharged highly saline olive brine wastewater to two groups of ponds, owned and operated by the City of Lindsay, identified as the Eastside and Westside Brine Ponds. The Eastside Brine Ponds are approximately a half-mile north and east of the LAA adjacent to the City of Lindsay's Wastewater Treatment Facility (**see Attachment B**). The Westside Brine Ponds are directly north and up-gradient of the LAA. Lindsay Olive Grower's Eastside and Westside Brine Ponds were constructed or reconditioned in 1967 with a single 10 mil PVC liner. Prior to that, Lindsay Olive Growers discharged its olive brine wastewater to unlined ponds in the vicinity of the Eastside Brine ponds. Discharge to the ponds ceased in 1992 following the closure of the Lindsay Olive Growers Plant.

32. The wastewater generated from the former Lindsay Olive Growers Plant contained excessive concentrations of sodium and chloride. The wastewater migrated from the ponds, polluting groundwater in the area. Because of the effects on groundwater, the Central Valley Water Board issued Cleanup and Abatement Order (CAO) 92-708 to the City of Lindsay and Lindsay Olive Growers to retrofit or close all the ponds, characterize the nature and extent of groundwater degradation, and develop a Corrective Action Program. In 1999, Robert and Sharon Hilarides with the Sierra Cattle Company purchased the site of the Westside Brine Ponds from the City of Lindsay and proposed to close the ponds. Between 1999 and 2001, the Westside Brine Ponds were closed in accordance with Title 27, as a non-municipal solid waste landfill with a low-permeability earthen cover, leaving the brine impacted soil in place. Following closure, a 10,000-cow dairy (Hilarides Dairy) was constructed on top of the closed ponds. Closure and Post-Closure Maintenance of the Westside Brine Ponds is regulated by WDRs R5-2004-0084.

33. The City of Lindsay failed to complete all the tasks required by CAO 92-708, including the closure of the Eastside Brine Ponds. In 2004, CAO 92-708 was replaced with CAO R5-2004-0715 for the Eastside Brine Ponds issued to the City of Lindsay and CAO R5-2004-0703 for the Westside Brine Ponds issued to the City of Lindsay and Robert and Sharon Hilarides. Order R5-2004-0715 requires the City to clean up and abate the effects of olive brine waste at the site of the Eastside Brine Ponds and to establish a groundwater Evaluation and Monitoring Program, in conjunction with Order R5-2004-0703 for the West Side Brine Ponds, to delineate the extent of groundwater degradation and prepare an

engineering feasibility study for corrective action. Long-term monitoring and maintenance of the former brine ponds and continued groundwater investigations and monitoring is ongoing.

Groundwater Considerations

34. According to the California Department of Water Resources Sustainable Groundwater Management Act (SGMA) groundwater elevation contour maps SGMA Groundwater Elevation Contour Maps (https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#gwlevels), utilizing Spring 2020 data, depth to groundwater at the LAA is around 138 to 142 feet below ground surface and the direction of regional groundwater flow is generally to the southwest. According to the Spring 2021 groundwater elevation contour maps, the overall regional flow was still to the southwest, but the groundwater surface elevation gradient flattened out in the vicinity of the LAA. Based on these maps, groundwater flow at the northwest corner of the LAA appears to be to the south while on the southeast corner of the LAA groundwater flow appears to be to the west. Depth to groundwater is approximately 147 feet to 152 feet.

35. The Discharger monitors groundwater as part of the LAA groundwater monitoring well network. Historically, two zones of groundwater, Zone A and Zone B, have been identified in the area of the salt plume caused by the former Lindsay Olive Growers discharge. The Discharger's 2nd Semi-Annual 2021 Groundwater Report states the depth to groundwater in the Zone A monitoring wells is approximately 68 to 88 feet below ground surface (bgs). Accordingly, the depth to groundwater in Zone B ranged from approximately 86 to 128 bgs. The 2021 Groundwater Report states, "…*The Zone A wells with measurable groundwater are not in a configuration that allows for preparation of a potentiometric groundwater surface map. There are two Zone B wells in the monitoring program therefore estimating groundwater contours is not possible…*" Thus, the direction of groundwater flow in Zone A and Zone B cannot be determined from the most recent site-specific data.

36. Well construction details for the groundwater monitoring well network are shown in Table 3 below.

Table 3 – Well Construction Details

Well Identification	Year Constructed	Screen Interval (feet bgs)	Groundwater Depth (2nd Semi-Annual 2021 Report) (feet bgs)
MW-1	1984	60-75	Dry
MW-1A	2013	63-93	88.4
MW-11A	~1999	65-80	Dry
MW-11B	2007	110-135	127.97
MW-12	~1999	65-80	Dry
MW-13	~1999	65-80	68.21
MW-13B	2016	83.7-143.7	85.57
MW-16D	1987	35-55	Dry
MW-16A	2012	60-90	84.12

37. Groundwater investigations show that groundwater quality underlying the area has been degraded by constituents characteristic of olive brine wastewater since prior to 1968, and have identified an extensive plume of highly saline groundwater in the vicinity of the site that has impaired beneficial uses of groundwater in the area.

38. The average groundwater quality for 2015 to 2021 from the onsite monitoring wells for select parameters is summarized below in Table 4. The first number listed in each cell for Table 4 is the average result and the number in parenthesis is the number of samples collected. The data shows some exceedances of the applicable MCL for nitrate, iron, and salinity constituents. Historic groundwater data for the area shows that groundwater (upgradient and downgradient) has exceeded the MCL for nitrate and for salinity constituents due to surrounding activities. Specifically, the salt plume (chloride, TDS, and EC) from the former Eastside Brine Ponds is centered in an area that includes wells MW-13B and MW-11. The monitoring well locations are shown in Attachment C. Furthermore, the surrounding land uses (present and historical) are shown in Attachment C.

Table 4 – Groundwater Quality (2015 - 2021)

Constituent/ Parameter	MW-1A	MW-11B	MW-12	MW-13	MW-13B	MW-16A
Location	Near wastewater ponds and Hilarides Dairy Pond	South of LAA	West of LAA and near former Brower Dairy Lagoon	Upgradient of LAA (between Eastside Brine Ponds and LAA)	Upgradient of LAA (between Eastside Brine Ponds and LAA)	North of LAA (near Westside Brine Ponds and Hilarides Dairy)
Zone A or Zone B	A	B	A	A	B	A
Chloride (mg/L)	359 (6)	499 (13)	450 (3)	**648** (1)	**763** (11)	459 (7)
Iron (µg/L)	286 (4)	34.3	**780** (2)	**780** (1)	**413** (7)	134 (6)
Manganese (µg/L)	5.3 (4) (See 1 below)	<5 (1)	30 (2)	11.7 (1)	11.9 (7)	3 (6)
Nitrate (as N) (mg/L)	4.9 (7)	**11.3** (1)	**37** (3)	**11.7** (1)	**3.7** (11)	3.4 (7)
TKN (mg/L)	0.86 (5)	1.1 (1)	2.5 (2)	2.0 (1)	0.9 (7)	3.6 (6)
Total Nitrogen (mg/L)	5.9 (5)	12.4 (1)	40.1 (2)	13.7 (1)	15.22 (7)	7.06 (6)
Potassium (mg/L)	3.9 (5)	6.6 (1)	7.5 (2)	6.55 (1)	6.5 (7)	6.0 (6)
Sodium (mg/L)	297 (7)	376 (13)	311 (3)	357 (1)	434 (11)	232 (7)
Sulfate (mg/L)	65 (5)	60.3 (1)	90 (2)	127(1)	154 (7)	41 (6)
TDS (mg/L)	**1,403** (7)	**1,658** (13)	**1,810** (2)	**1,730** (1)	**1,885** (11)	**1,470** (7)
EC (µmhos/cm)	**2,279** (7)	**2,641** (13)	**2,743** (3)	**3,030** (1**)**	**3,238** (11)	**2,466** (7)

1. 23 September 2020 manganese reading (9,000 µg/L) was not included in the average calculation since it is a statistical outlier.

39. This Order requires continued groundwater monitoring around the ponds and the LAA to continue to evaluate the impacts the Plant's discharge has on underlying groundwater.

Statutory Authority

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

> *The regional board, after any necessary hearing, shall prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge…, with relation to the conditions existing in the disposal area or receiving waters upon, or into which, the discharge is made or proposed. 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 reasonable required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241.*

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

42. The ability to discharge waste is a privilege, not a right, and adoption of this Order shall not be construed as creating a vested right to continue discharging waste. (Wat. Code, § 13263, subd. (g).)

43. This Order and the MRP are also adopted pursuant to Water Code section 13267, subdivision (b)(1), which provides as follows:

> *[T]he regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste … shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.*

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

Basin Plan Implementation

45. Pursuant to Water Code section 13263, subdivision (a), WDRs must "implement any relevant water quality control plans…, 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 Section 13241."

Beneficial Uses of Water

46. 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 water quality objectives (WQOs) necessary to preserve such beneficial uses. (See Wat. Code, § 13241 et seq.)

47. Local drainage is to the Valley Floor Waters. The beneficial uses of Valley Floor Waters within the subject hydrologic area (Kaweah Delta Hydrologic Area No. 558.10) include the following: agricultural supply (AGR); industrial service supply (IND); industrial process supply (PRO); water contact recreation (REC-1); non-water contact recreation (REC-2); warm freshwater habitat (WARM); wildlife habitat (WILD); rare, threatened, or endangered species (RARE); and groundwater recharge (GWR).

48. Per the Basin Plan, beneficial uses of underlying groundwater at the Facility include the following: municipal and domestic supply (MUN); agricultural supply (AGR); industrial service supply (IND); industrial process supply (PRO); water contact recreation (REC-1); and non-contact water recreation (REC-2).

Water Quality Objectives (WQOs)

49. The Basin Plan establishes narrative WQO's for chemical constituents, taste and odors, and toxicity in groundwater. The toxicity objective, in summary, requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plan, animal, or aquatic life associated with designated beneficial uses.

50. The Basin Plan's narrative WQO's for chemical constituents require MUN designated water to at least meet the MCLs specified in California Code of Regulations, title 22 (Title 22). The Basin Plan recognizes that the Central Valley Water Board may apply limits more stringent than MCLs to ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses.

51. Quantifying a narrative WQO requires a site-specific evaluation of those constituents that have the potential to impact water quality and beneficial uses. The Basin Plan states that when compliance with a narrative objective is required to protect specific beneficial uses, the Central Valley Water Board will, on a case-by-case basis, adopt numerical limitations to implement the narrative objective.

52. In the absence of specific numerical water quality limits, the Basin Plan methodology is to consider any relevant published criteria. General salt tolerance guidelines, such as *Water Quality of Agriculture,* by Ayers and Westcot, and similar references indicate that yield reductions in nearly all crops are not evident when irrigation water has an electrical conductivity (EC) of less than 700 µmhos/cm. There is, however, an eight-to ten-fold range in salt tolerance for agricultural crops, and the appropriate salinity values to protect agriculture in the Central Valley are considered on a case-by-case basis. It is possible to achieve full yield potential with groundwater EC up to 3,000 µmhos/cm, if the proper leaching fraction is provided to maintain soil salinity within the tolerance of the crop.

Salt and Nitrate Control Programs

53. 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 (Salt and Nitrate Control Programs). The Basin Plan amendments were conditionally approved by the State Water Board on 16 October 2019 (Resolution 2019-0057), approved by the Office of Administrative Law on 15 January 2020 (OAL Matter No. 2019-1203-03), and became effective on 17 January 2020.

54. For the Salt Control Program, dischargers that are unable to comply with stringent salinity requirements will instead need to meet performance-based requirements 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 was issued a Notice to Comply for the Salt Control Program on 5 January 2021 **(CV-SALTS ID: 1904)**, with a deadline to join by 15 July 2021. On 22 October 2021, the Central Valley Water Board received a Notice of Intent for the Facility. The Discharger chose to participate in the P&O Study. In the interim, to maintain existing salt discharges and minimize salinity impacts this Order does the following:

    a. Requires the Discharger to continue efforts to control salinity in its discharge to the extent feasible;

b. Requires the Discharger to update, within six months of the issuance of the Order, the Plants' Salinity Control Plan and the Nutrient and Wastewater Management Plans; and

c. Sets a FDS performance-based effluent limit of 1,700 mg/L. This performance-based limit was set based on the 2021 annual average effluent FDS concentration (1,375 mg/L) plus 25 percent to allow some flexibility for water conservation efforts. The 2021 annual average was computed without using the 17 June 2021 FDS data point (13,200 mg/L) as it appears to be a statistical outlier.

55. For the Nitrate Control Program, dischargers that are unable to comply with stringent nitrate requirements will be required to take on alternate compliance approaches that involve providing replacement drinking water to persons whose drinking water is affected by nitrates. Dischargers may comply with the new nitrate program either individually (Pathway A) or collectively with other dischargers (Pathway B). For the Nitrate Control Program, the Discharger falls within Groundwater Sub-Basin 5-22.11 (San Joaquin Valley – Kaweah), a Priority 1 Basin. The Discharger was issued a Notice to Comply with instructions and obligations for the Nitrate Control Program on 29 May 2020, with a deadline to reply by 7 May 2021. A Notice of Intent was received on 9 July 2021 from the City of Lindsay, selecting Path A for compliance. The Notice of Intent was found to be deficient on 15 October 2021. The Discharger was given until 15 November 2021 to submit a satisfactory response to the Notice To Comply. On 12 November 2021 the Discharger submitted a new Notice of Intent selecting Path B and choosing to participate in the Kaweah Water Foundation Management Zone.

56. 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.

Special Considerations for High Strength Waste

57. For the purpose of this Order, "high strength waste" 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. Typical high strength wastewaters include septage, some food processing wastes (e.g., pistachio processing facilities), winery wastes, and rendering plant wastes.

58. Excessive application of high organic 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 the implementation of best management practices, which include planting crops to take up plant nutrients and maximizing oxidation of BOD_5 to prevent nuisance conditions.

59. 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. When insufficient oxygen is present below the ground surface, anaerobic decay of the organic matter can create reducing conditions that convert metals that are naturally present in the soil as relatively insoluble (oxidized) forms to more soluble reduced forms. This condition can be exacerbated by acidic soils and/or acidic wastewater. If the reducing conditions do not reverse as the percolate travels down through the vadose zone, these dissolved metals (primarily iron, manganese, and arsenic) can degrade shallow groundwater quality. Many aquifers contain enough dissolved oxygen to reverse the process, but excessive BOD loading over extended periods may cause beneficial use impacts associated with these metals.

60. Typically, irrigation with high strength wastewater results in heavy 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 the operation of the land application system.

61. *Pollution Abatement in the Fruit and Vegetable Industry*, published by the United States Environmental Protection Agency, cites BOD_5 loading rates in the range of 36 to 600 lbs/ac/day to prevent nuisance, but indicates the loading rates can be even higher under certain conditions. The studies that supported this report did not evaluate actual or potential groundwater degradation associated with those rates. There are few studies that have attempted to determine maximum BOD_5 loading rates for protection of groundwater quality. Those that have been done are not readily adapted to the varying soil, groundwater, and climate conditions that are prevalent throughout the region.

62. In a properly managed land application area, a cycle average BOD loading rate of less than 100 lbs/ac/day should not result in objectional odors or unreasonably threaten underlying groundwater. This Order sets an irrigation cycle average BOD loading rate for the LAA of 100 lbs/ac/day.

Compliance with Antidegradation Policy

63. The *Statement of Policy with Respect to Maintaining High Quality Waters in California*, State Water Board Resolution 68-16 (Policy), which is incorporated as part of the Basin Plan, prohibits the Central Valley Water Board from authorizing degradation of "high quality waters" unless it is shown that such degradation: (1) will be consistent with the maximum benefit to the people of California; (2) will not unreasonably affect beneficial uses, or otherwise result in water quality less than as prescribed in applicable policies; and (3) is minimized through the discharger's best practicable treatment or control (BPTC).

64. As discussed previously under groundwater conditions, groundwater quality underlying the area has been degraded for salinity since prior to 1968 as a result of the discharge of olive brine wastewater by the former Lindsay Olive Growers. Compliance with the Antidegradation Policy will be determined based on existing background water quality (Antidegradation Baseline).

65. Table 5 below summarizes the average concentration of the wastewater discharge (January 2019 through December 2021), groundwater data from the surrounding groundwater monitoring well network (2015 through December 2021), and the applicable water quality objectives (WQOs).

Table 5 – Constituents with Potential for Degradation

Constituent	Units	Effluent (See 1 below)	Groundwater (See 2 below)	WQOs
TDS	mg/L	4,602	843 - 2,160	500-1,000
FDS	mg/L	940	---	---
EC	µmhos/cm	2,458	1,250 - 3,410	900-1,600
Chloride	mg/L	312	81.1 - 905	250 - 500
BOD_5	mg/L	7,195	---	---
Nitrate (as N)	mg/L	2.6	0.3 – 67.3	10
Total Nitrogen	mg/L	104	1.8 – 69.2	---

1. Average wastewater effluent concentrations based on samples collected from January 2019 through December 2021. EC, TDS, and FDS data for 17 June 2021 is not included as the result appears to be a statistical outlier.
2. The monitoring data is from six monitoring wells (MW-1A, MW-11B, MW-12, MW-13, MW-13B, MW-16A) around the LAA site from the beginning of 2015 through 2021.

66. Constituents of concern (COCs) for the discharge, that have the potential to degrade groundwater, salt, nitrate, and organics (BOD_5), are discussed below and in Table 5.

    a. For **salinity**, underlying groundwater has been degraded for salinity prior to 1968 due to the former discharge of olive brine wastewater from the Lindsay Olive Growers Plant to disposal ponds in the vicinity of the LAA. Groundwater underlying the LAA generally contains EC, TDS, and chloride concentrations in excess of WQOs. As discussed in prior Findings, recent effluent data shows an increase in salinity concentrations that the Discharger attributed to increased water conservation. Recent effluent chloride concentrations are similar to underlying groundwater conditions. Furthermore, TDS and FDS concentrations show that a significant portion of the Plants' effluent is organic solids (approximately 80%). Therefore, a significant portion of the TDS in the Facility's effluent will likely degrade during land application of the effluent. To help ensure that the Discharger continues to implement salinity reduction measures, this Order includes a performance-based effluent limit for FDS. Furthermore, this Order requires the Discharger to continue to comply with the new Salinity Control Program (i.e., participate in the P&O Study). Finally, this Order requires the Discharger to update and implement its 2013 Salinity Control Plan to control the salinity of the discharge

    b. For **nitrogen**, nitrate (as N) concentrations in groundwater exceed the MCL of 10 mg/L both up-gradient and down-gradient of the LAA. With an average nitrogen wastewater concentration of 104 mg/L, the nitrogen load to the LAA at a maximum proposed volume of 152 million gallons annually would be about 469 lbs/acre/year. This loading rate is similar to the annual nitrogen uptake for alfalfa and double-cropped fields of corn and winter wheat. To address the nitrate impacts associated with the Plants' discharge, this Order requires the Discharger to comply with the new Nitrate Control Program. The Discharger has chosen to participate in Pathway B of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) Nitrate Control Program and joined the Kaweah Water Foundation Management Zone group. Finally, the proposed Order requires the Discharger to update and implement its 2013 Nutrient and Wastewater Management Plan to ensure, in part, application at agronomic rates.

    c. For **organics** (i.e., BOD_5), application of organic materials (as measured by BOD_5) at excessive rates can cause anaerobic conditions that may result in nuisance odor conditions, dissolution of metals, and degradation of groundwater. This Order requires the Discharger to apply wastewater to

the LAA at agronomic rates and limits the cycle average BOD_5 loading rate to the LAA to less than 100 lbs/ac/day. With an average BOD_5 concentration (for the past three years) of 7,195 mg/L, the average BOD_5 loading rate to the LAA at 152 million gallons per year would be about 89 lbs/acre/day. To further minimize the potential for reducing and/or nuisance conditions, this Order requires the Discharger to update and implement its 2013 Nutrient and Wastewater Management Plan. In addition, this Order requires continued groundwater monitoring around the ponds and the LAA.

67. The Discharger implements, or will implement, as required by this Order, the following BPTC measures:

    a. Screening the wastewater;

    b. Providing significant dilution of the Plants' effluent with irrigation water;

    c. Application of blended wastewater and irrigation water at agronomic rates;

    d. BOD cycle average loading rate less than 100 lbs/acre/year;

    e. Performance-based effluent limit for FDS of 1,700 mg/L;

    f. Updating and continued implementation of the Plants' Salinity Control Plan;

    g. Updating and implementing the LAA Nutrient and Wastewater Management Plan;

    h. Continued groundwater monitoring;

    i. Compliance with the Salt and Nitrate Control Program.

68. The Discharger's implementation of the above-listed BPTC measures will minimize the extent of water quality degradation resulting from the Facility's continued operation.

69. Economic prosperity of valley communities and associated industry is of maximum benefit to the people of the state and, therefore, sufficient reason exists to accommodate growth and limited groundwater degradation around the Facility, provided that the terms of the Basin Plan are met. Degradation of groundwater by some typical waste constituents released with discharge from the Plants after effective source reduction, treatment and control, and considering

the best efforts of the Discharger and magnitude of degradation, is of maximum benefit to the people of the state.

70. The Plants contribute to the economic prosperity of the region by providing a necessary service and employment (90 to 100 full-time employees in the region) for the local community; by providing incomes for numerous aligned businesses; and by providing a tax base for local and county governments. Accordingly, to the extent that any degradation occurs as the result of the Facility's operation, such degradation is consistent with the maximum interest of the people of the State of California.

71. Based on the foregoing, the adoption of this Order is consistent with the State Water Board's Antidegradation Policy.

California Environmental Quality Act (CEQA)

72. On 12 April 1985, Tulare County, in accordance with the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) and the State CEQA guidelines (Division 6 of Title 14 of the California Code of Regulations, as amended) adopted a Negative Declaration for the discharge of citrus processing wastewater to the LAA. The Negative Declaration determined that the project, as proposed, would not have a significant effect on water quality.

73. As previously discussed, these WDRs only authorize flows reflecting existing operations at the Plants. Therefore, the issuance of this Order, which prescribes requirements and monitoring of waste discharges at an existing facility, with negligible or no expansion of its existing use, is exempt from the procedural requirements of CEQA.

74. This Order is further exempt from CEQA procedural requirements insofar as it is adopted for the protection of the environment and does not authorize construction activities or the relaxation of standards allowing for environmental degradation, in accordance with CEQA.

Other Regulatory Considerations

Human Right to Water

75. Pursuant to Water Code, section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This General Order promotes this policy by including process water discharge specifications and prohibitions and requiring that discharges not cause or

contribute to exceedances of water quality objectives that have been developed to protect municipal and domestic water supplies.

Threat-Complexity Rating

76. For the purposes of California Code of Regulations, title 23 (Title 23), section 2200, the Facility has a threat-complexity rating of **2**-**B**.

    a. Threat Category "2" reflects waste discharges that can impair receiving water beneficial uses, cause short-term water quality objective violations, cause secondary drinking water standard violations, and cause nuisances.

    b. Complexity Category "B" reflects any discharger not included in Category A, with either (1) physical, chemical or biological treatment systems (except for septic systems with subsurface disposal), or (2) any Class II or Class III WMUs.

Title 27 Exemption

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

Scope of Order

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

79. 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 timing of waste discharges authorized herein, without filing a new Report of Waste Discharge (ROWD) per Water Code section 13260.

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

81. This Order is also strictly limited in applicability to those individuals and/or entities specifically designated herein as "Discharger," subject only to the discretion to designate or substitute new parties in accordance with this Order.

Procedural Matters

82. All of the above information, as well as the information contained in the attached Information Sheet (incorporated herein), was considered by the Central Valley Water Board in prescribing the WDRs set forth below.

83. The Discharger, interested agencies and other interested persons were notified of the Central Valley Water Board's intent to prescribe the WDRs in this Order and provided an opportunity to submit their written views and recommendations at a public hearing. (See Wat. Code, § 13167.5.)

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

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

REQUIREMENTS

It is Hereby Ordered, pursuant to Water Code sections 13263 and 13267, that WDRs Order R5-2012-0122 be rescinded (except for enforcement purposes) and that, the Discharger and their agents, employees and successors shall comply with the following.

A. Standard Provisions

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

B. Prohibitions

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

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

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

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

3. Discharge of wastes other than the treated Plants' process wastewater at the location and in the manner described in the Findings and authorized herein is prohibited.

4. Except as otherwise expressly authorized in this Order, waste shall not be discharged to surface waters or surface water drainage courses (including irrigation ditches outside of Discharger's control).

5. Waste shall not be discharged from the Facility in a manner other than as described in this Order.

6. Discharge of toxic substances into any wastewater treatment system or the LAA such that biological treatment mechanisms are disrupted is prohibited.

7. Discharge of waste classified as 'designated', as defined in Water Code section 13173, in a manner that causes violation of groundwater limitations, is prohibited.

8. Discharge of domestic wastewater to the process wastewater treatment system, Lined Settling Pond, and/or LAA fields is prohibited.

C. Flow Limitation

1. Effluent discharged from the Plants to the LAA and/or storage ponds, shall not exceed a monthly average flow of 0.71 million gallons per day (mgd) or a total annual discharge of 152 million gallons (monitored at EFF-001).

D. Salinity Performance-Based Effluent Limitation

Table 6 — Effluent Limits

Constituent/Parameter	Limit	Basis for Compliance Determination
FDS	1,700 mg/L	Annual Average (see 1 and 2 below)

1. The FDS effluent limitation is a performance-based effluent limitation (as discussed in the Findings) since the Discharger has selected to participate in the P&O Study. The purpose of this limit is to ensure the Discharger is implementing appropriate performance-based measures at the Facility.

2. The annual average shall be calculated as the average of all FDS wastewater readings collected at EFF-001 each calendar year.

E. Discharge Specifications

1. No waste constituent shall be released, discharged, or placed where it will be released or discharged in a concentration or in a mass that causes violation of the Groundwater Limitations of this Order.

2. Wastewater treatment, storage, and disposal shall not cause pollution or a nuisance as defined by Water Code section 13050.

3. The discharge shall remain within the permitted waste treatment/containment structures and LAAs at all times.

4. The Discharger(s) shall operate all systems and equipment to optimize the quality of the discharge.

5. All conveyance, treatment, storage, and disposal units shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.

6. Objectionable odors shall not be perceivable beyond the limits of the Plants or the LAA (including storage ponds) at an intensity that creates or threatens to create nuisance conditions.

7. As a means of ensuring compliance with Discharge Specification E.6, the dissolved oxygen (DO) content in the upper one foot of any wastewater treatment or storage pond 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 the DO in any single pond is below 1.0 mg/L for any single sampling event, the Discharger shall implement daily DO monitoring of that pond until the minimum DO concentration is achieved for at least three consecutive days. If the DO in any single pond is below 1.0 mg/L for three consecutive days, the Discharger shall report the findings to the Central Valley Water Board in accordance with Section B.1 of the SPRRs. The written notification shall include a specific plan to resolve the low DO results within 30 days of the first date of violation.

8. All ponds shall be managed to prevent breeding of mosquitoes. Specifically

a. An erosion control plan should assure that coves and irregularities are not created around the perimeter of the water surface.

b. Weeds shall be minimized through control of water depth, harvesting, and herbicides.

c. Dead algae, vegetation and other debris shall not accumulate on the water surface.

d. The Discharger(s) shall consult and coordinate with the local Mosquito Abatement District to minimize the potential for mosquito breeding as needed to supplement the above measures.

9. Wastewater storage ponds shall have sufficient capacity to accommodate allowable wastewater flow and design seasonal precipitation and ancillary inflow and infiltration during the winter. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.

10. The Discharger shall design, construct, operate, and maintain all ponds sufficiently to protect the integrity of containment dams and berms and prevent overtopping and/or structural failure. Unless a California registered civil engineer certifies (based on design, construction, and conditions of operation and maintenance) that less freeboard is adequate, the operating freeboard shall never be less than two feet (measured vertically). As a means of management and to discern compliance with this requirement, the Discharger shall install and maintain in each pond a permanent staff gauge or other suitable measurement device with calibration marks that clearly show the water level at design capacity and enable determination of available operational freeboard.

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

F. Land Application Area Specifications

1. For the purpose of this Order, “land application area” or “LAA” refers to the discharge area described in the Findings.

2. The perimeter of the LAA 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 Dischargers.

3. Crops shall be grown on the LAA. Crops shall be selected based on nutrient uptake, consumptive use of water, and irrigation requirements to maximize crop uptake.

4. Application of waste constituents shall be at reasonable agronomic rates to preclude creation of a nuisance or degradation of groundwater, considering the crop, soil, climate, and irrigation management. The annual nutritive loading to the LAA, including the nutritive value of organic and chemical fertilizers and of the wastewater, shall not exceed the annual crop demand.

5. Hydraulic loading of wastewater and irrigation water shall be at reasonable agronomic rates designed to minimize the percolation of wastewater and irrigation water below the root zone (i.e., deep percolation).

6. The BOD loading to the LAA, calculated as a cycle average as determined by the methods described in the attached MRP, shall not exceed 100 lbs/acre/day.

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

8. The Discharger shall not discharge process wastewater to the LAA when soils are saturated (e.g., during or after significant precipitation events).

9. Discharge of process wastewater to any land not having a fully functional tailwater/runoff control system is prohibited.

10. The LAA shall be managed to prevent breeding of mosquitoes. More specifically:

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

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

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

G. Groundwater Limitations

Release of waste constituents from any treatment, reclamation, or storage component associated with the discharge shall not cause or contribute to groundwater containing constituent concentrations in excess of the concentrations specified below or background 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 and nitrate.

2. Contain taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses.

H. Solids Disposal Specifications

1. For the purpose of this Order, residual solids includes the solid, semisolid, and liquid organic matter removed during the screening of wastewater.

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

3. Any handling and storage of residual solids shall be temporary and controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or concentration that will violate the groundwater limitations of this Order.

4. If removed from the site, residual solids shall be disposed of in a manner approved by the Executive Officer and consistent with Title 27, division 2. Removal for reuse as animal feed, biofuel feedstock, or land disposal at facilities (i.e., landfills, composting facilities, soil amendment sites operated in accordance with valid waste discharge requirements issued by a Regional Water Board) will satisfy this specification.

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

I. Provisions

1. The Discharger shall comply with **Monitoring and Reporting Program R5-2022-####**, which is part of this Order, and any revisions thereto as ordered by the Executive Officer. The submittal dates of Discharger self-monitoring reports shall be no later than the submittal date specified in the MRP.

2. A copy of this Order including the MRP, Information Sheet, Attachments, and Standard Provisions, shall be kept at the WWTF for reference by operating personnel. Key operating personnel shall be familiar with its contents.

3. The Discharger shall comply with the Basin Plan amendments adopted in Resolution R5-2018-0034 incorporating new programs (Salt and Nitrate Control Program) for addressing ongoing salt and nitrate accumulation in the Central Valley developed as part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative.

4. The reports/submittals required in this section shall be submitted pursuant to Water Code section 13267 and shall be prepared as described in Provision I.5.

5. **By <6 months following adoption of the Order>,** the Discharger shall update the Plants' Salinity Control Plan and submit it to the Executive Officer. The updated Salinity Control Plan shall, at a minimum include the following:

    a. Discuss the Plants' current operations (e.g., current chemicals used);

    b. Evaluate the cause(s) of the salinity increase in the Plants' wastewater; and

    c. Evaluate methods to reduce the salinity in the Plants' wastewater.

6. **By <6 months following adoption of the Order>** the Discharger shall update the LAA Nutrient and Wastewater Management Plan. The main objective of the Plan is to identify how the Discharger will manage the LAA to ensure nutrient and hydraulic wastewater loading will occur at reasonable agronomic rates. At a minimum, the updated Nutrient and Wastewater Management Plan shall include:

a. An action plan to deal with objectionable odors and/or nuisance conditions at the LAA (including the onsite storage ponds);

b. Supporting data and calculations for monthly and annual hydraulic, nitrogen, and salinity loading rates; and

c. Management practices that will ensure wastewater, irrigation water, fertilizers, solids, and salts are applied at reasonable rates to preclude nuisance conditions and unreasonable degradation of groundwater.

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

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. 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.

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

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

12. 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.

13. 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 SERC.

14. 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 ensure 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 ensure full compliance with this Order.

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

16. To assume operation as Discharger under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Central Valley Water Board, and a statement. The statement shall comply with the signatory paragraph of Standard

Provision B.3 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the Water Code. If approved by the Executive Officer, the transfer request will be submitted to the Central Valley Water Board for its consideration of transferring the ownership of this Order at one of its regularly scheduled meetings.

17. The Discharger(s) shall maintain and operate surface impoundments sufficiently to protect the integrity of containment levees and prevent overtopping or overflows. Unless a California registered civil engineer certifies (based on design, construction, and conditions of operation and maintenance) that less freeboard is adequate, the operating freeboard shall never be less than two feet (measured vertically). As a means of management and to discern compliance with this Provision, the Discharger(s) shall install and maintain a permanent marker with calibration that indicates the water level at the design capacity and enables determination of available operational freeboard.

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

ENFORCEMENT

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

ADMINISTRATIVE REVIEW

Any person aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. The State Water Board must receive the petition by 5:00 p.m. on the 30th day after the date of this Order; if the 30th day falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions are available on the Internet (at the address below) and will be provided upon request.

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

ATTACHMENTS

Attachment A — VICINITY MAP

Attachment B — SURROUNDING LAND USES (PRESENT AND HISTORICAL)

Attachment C — LAA MAP

Attachment D — PROCESS FLOW DIAGRAM

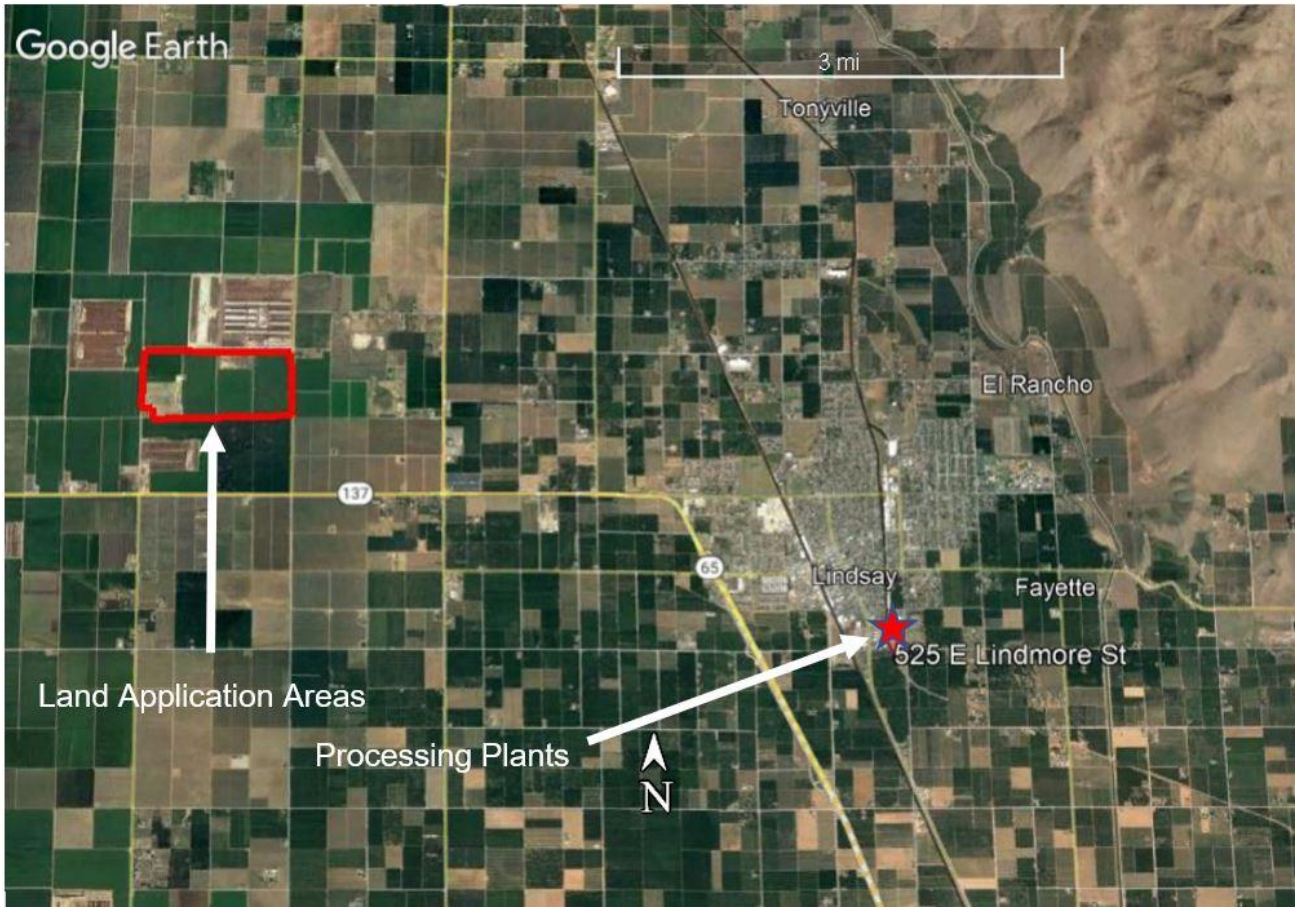
Attachment E — WASTEWATER GENERATION DIAGRAM

Information Sheet

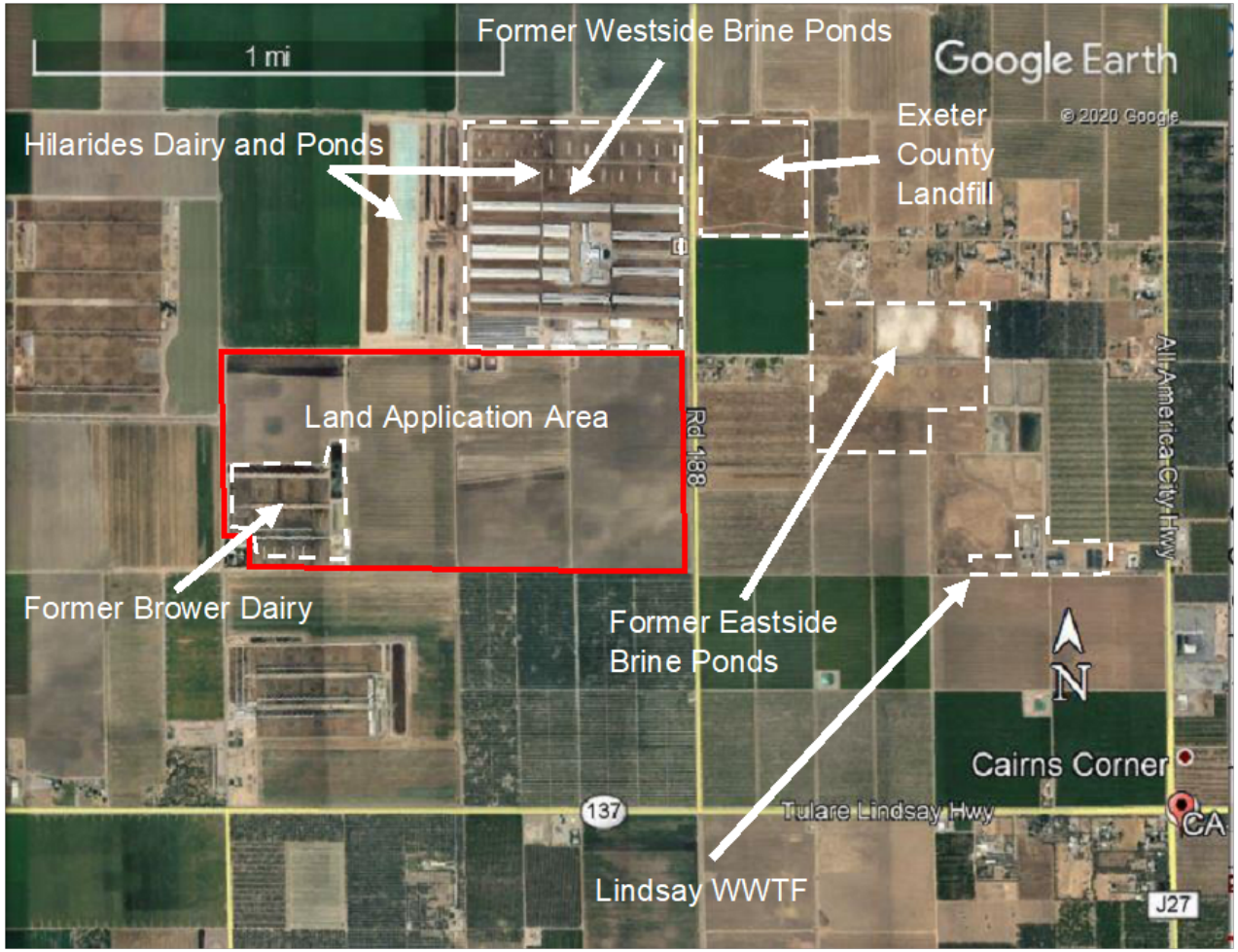
Standard Provisions and Reporting Requirements (SPRRs), dated 1 March 1991

Monitoring and Reporting Program R5-2022-####

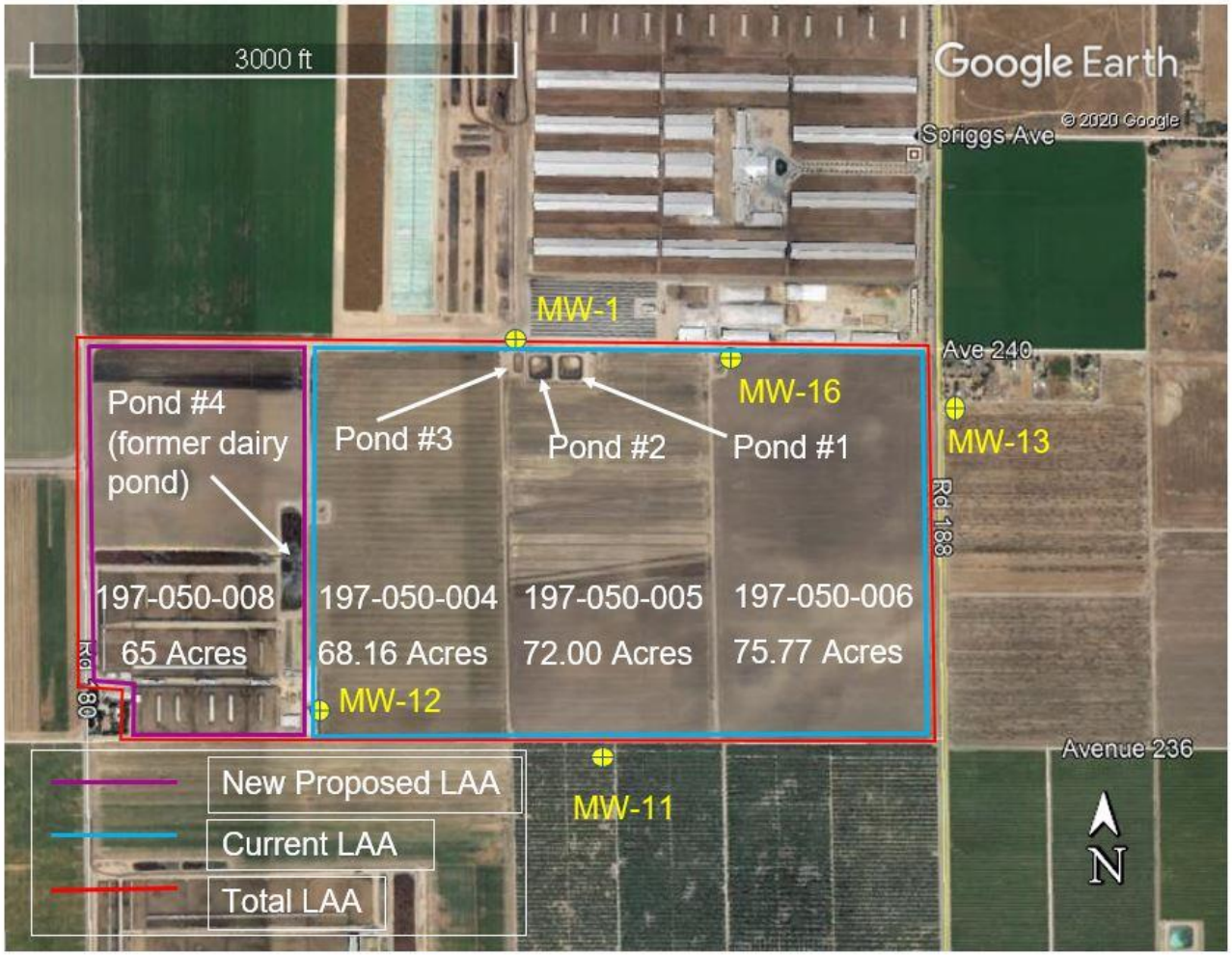
ATTACHMENT A — VICINITY MAP



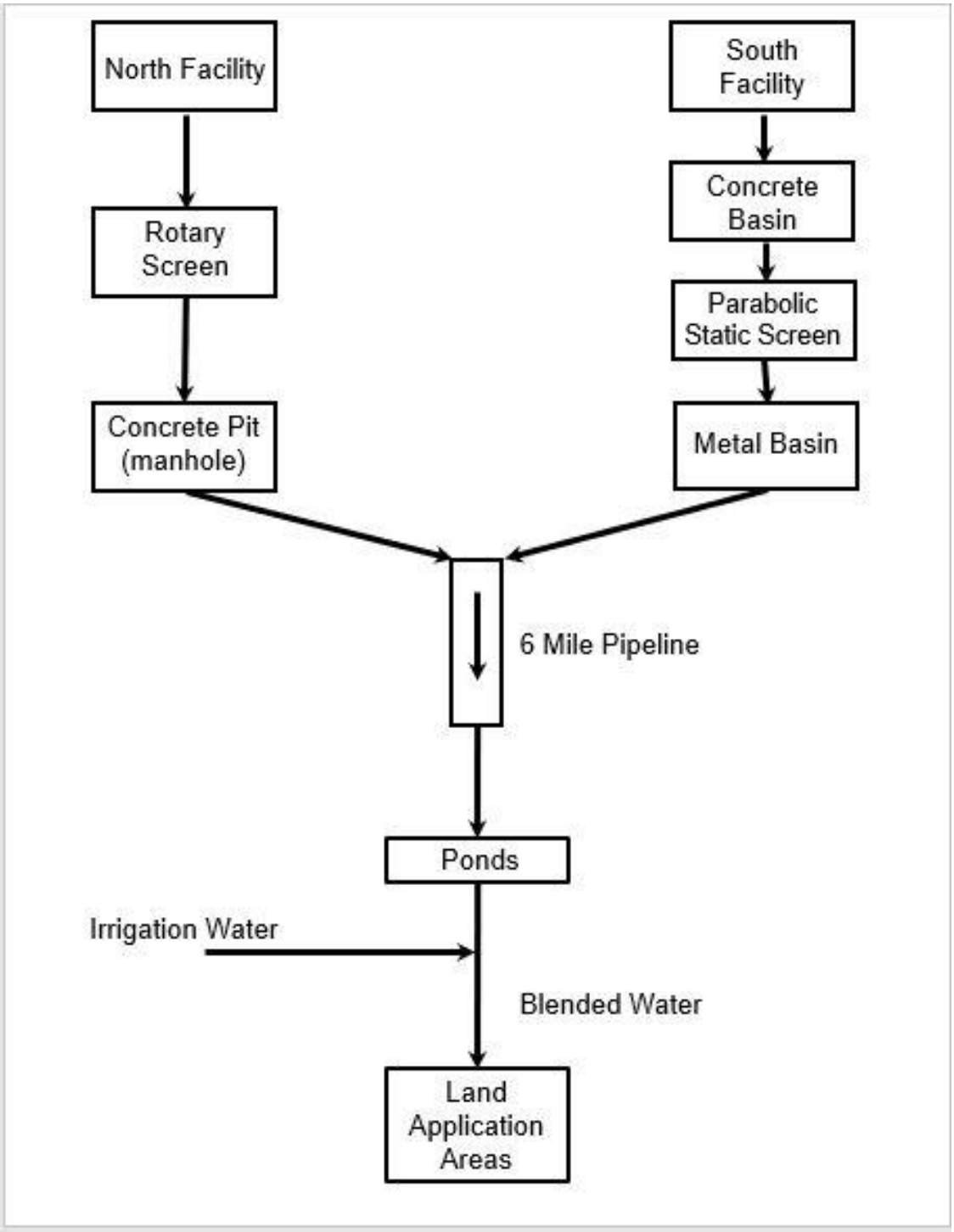
ATTACHMENT B — SURROUNDING LAND USES (PRESENT AND HISTORICAL)



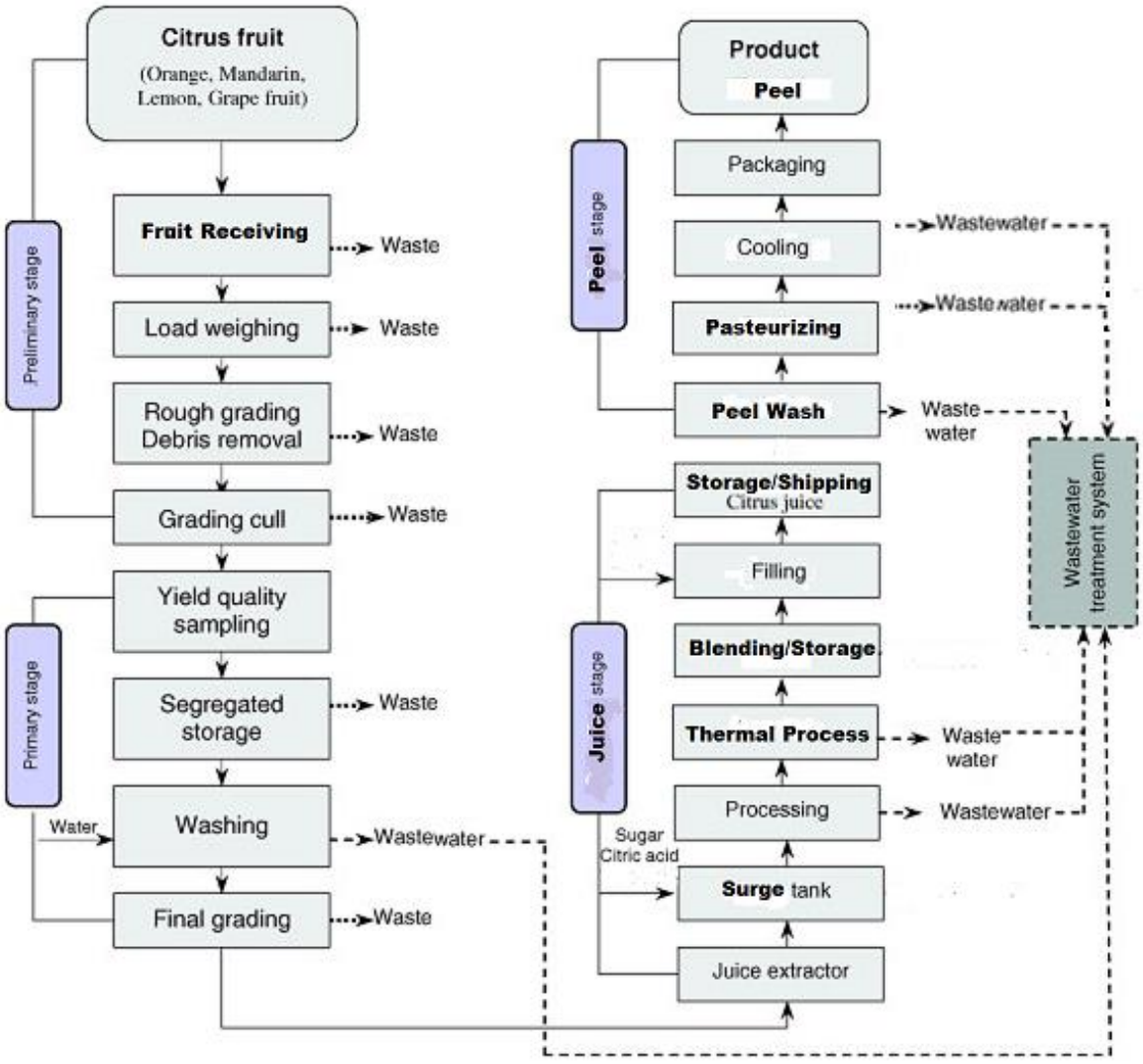
ATTACHMENT C — LAA MAP



ATTACHMENT D — PROCESS FLOW DIAGRAM



ATTACHMENT E — WASTEWATER GENERATION DIAGRAM



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

[TENTATIVE] WASTE DISCHARGE REQUIREMENTS ORDER R5-2022-####XXXX
FOR
VITA-PAKT CITRUS PRODUCTS COMPANY, CITY OF LINDSAY,
EDWARD AND EDNA BROWER REVOCABLE TRUST
VITA-PAKT LINDSAY LAND APPLICATION AREA
TULARE COUNTY

INFORMATION SHEET

BACKGROUND

Vita-Pakt Citrus Products Company (Vita-Pakt), the City of Lindsay (Lindsay), and the Edward and Edna Brower Revocable Trust (Trust) are collectively referred to as Discharger in these WDRs. The WDRs regulate the discharge of citrus process wastewater to a land application area (LAA) located at the southwest corner of Road 188 and Avenue 240 in Tulare County. Vita-Pakt owns the two fruit processing plants (Plants) that generate the wastewater. One plant manufactures orange juice concentrate (South Plant) and the other processes fresh kiwi and citrus peels for purees and marmalades (North Plant). Vita-Pakt also owns one of the LAA parcels. The City of Lindsay owns the pipeline that transports the wastewater from the Plants to the LAA. The Trust owns three of the four LAA parcels and, in accordance with its lease agreement with Lindsay, manages the farming operation within the LAA including blending and distribution of wastewater as well as planting and harvesting of the crops on all of the parcels (including the parcel owned by Vita-Pakt). The lease agreement extends through 30 April 2060.

The LAA consists of four contiguous parcels, which total approximately 281 acres. The east center parcel, Assessor's Parcel Number (APN) 197-050-005, is owned by Vita-Pakt. The other three parcels, APN 197-050-008, APN 197-050-004 and 197-050-006 are owned by Edward and Edna Brower Revocable Trust.

The discharge of citrus processing wastewater to the LAA is currently regulated by Waste Discharge Requirements (WDRs) Order R5-2012-0122, which authorizes an average monthly discharge of up to 0.45 million gallons per day (mgd) to the 216-acre LAA. On 27 July 2020, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) received a Report of Waste Discharge (RWD) to update the current Order to increase the permitted flow limit and to increase the size of the LAA to 281 acres for discharge of fruit processing wastewater to land. The 27 July 2020 Report of Waste Discharge requested the new Order authorize a monthly average wastewater discharge of 0.9 mgd, with an annual limit of 195 million gallons (mg). During the staff review, the Discharger revised the expansion request down to a monthly average limit of 0.71 mgd and a total annual limit of 152 mg.

Central Valley Water Board staff found the RWD to be incomplete, as discussed in a 26 August 2020 letter. The Discharger provided a response to the 26 August 2020 letter on 23 October 2020. Additional materials were provided on 3 and 16 November 2020; 8 January 2021; 19 and 21 May 2021; 16 July 2021; 3 November 2021; and additional dates.

EXISTING PLANT AND DISCHARGE

Wastewater discharged to the LAA consists of condensate from the juice concentrate evaporators, refrigeration cooling water, and wash water. For the period January 2018 through December 2021, monthly average wastewater flows to the LAA are about 0.28 million gallons per day (mgd), with the highest month average at 0.71 mgd. The existing wastewater discharge is discussed in more detail in Findings 12 to 20.

Wastewater generated from Vita-Pakt is screened, collected, discharged via a six-mile-long pipeline to three unlined storage ponds at the LAA on parcel APN 197-050-005. There is also a fourth unlined pond available on parcel APN 197-050-008. The wastewater is currently blended with irrigation water at a ratio of approximately one part wastewater to 4 parts irrigation well water prior to application on crops. The blended water is applied to the fields via flood irrigation. Crops grown in the fields include grains and alfalfa. In accordance with the lease agreement between the City of Lindsay and the Trust, the Trust manages the farming operation within the LAA including blending and distribution of wastewater as well as planting and harvesting of the crops. Lindsay is responsible for all documents and reports required by the Central Valley Water Board and operating and managing the pipeline between the processing plants and the LAA. Solids removed from the waste stream by screening are collected and sold as cattle feed.

GROUNDWATER CONSIDERATIONS

Groundwater considerations are discussed in Findings 34 to 39 of the Order.

ANTIDEGRADATION

Antidegradation analysis and conclusions are discussed in Findings 63 through 71 of the Order.

DISCHARGE PROHIBITIONS, LIMITATIONS, DISCHARGE SPECIFICATIONS, AND PROVISIONS

Effluent discharged from the Plants to the LAA and/or storage ponds shall not exceed a monthly average flow of 0.71 million gallons per day (mgd) or a total annual discharge

of 152 million gallons (MG) (monitored at EFF-001). The Order includes a cycle BOD_5 loading limit of 100 lbs BOD/acre/day and requires the application of wastewater to be at agronomic rates. The Order also specifies an FDS performance-based effluent limitation of 1,700 mg/L FDS, (as discussed in Findings 54.c) since the Discharger selected to participate in the P&O Study (see Salt and Nitrate Control Programs below). The purpose of this limit is to ensure the Discharger is implementing appropriate salinity performance-based measures at the Facility.

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 impacts of waste discharges on waters of the State. Water Code Section 13268 authorizes assessment of civil administrative liability where appropriate. The Order includes effluent, pond, source water, groundwater, irrigation water, and solids monitoring requirements. This monitoring is necessary to characterize the discharge and evaluate compliance with the requirements and specifications in the Order.

SALT AND NITRATE CONTROL PROGRAMS REGULATORY CONSIDERATIONS

At its 31 May 2018 Board Meeting 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 (i.e., Salt and Nitrate Control Programs). These Basin Plan amendments were conditionally approved by the State Water Resources Control Board on 16 October 2019 (Resolution 2019-0057) and by the Office of Administrative Law on 15 January 2020. (OAL Matter No. 2019-1203-03) and became effective on 17 January 2020. For more information regarding the Salt and Nitrate Control Programs, you are encouraged to go to the CV-SALTS Info Webpage (https://www.cvsalinity.org/public-info). As these programs are implemented, the Central Valley Water Board may find it necessary to modify the requirements of these WDRs to ensure the goals of the Salt and Nitrate Control Programs are met.

For the Salt Control Program, on 5 January 2021, the Central Valley Water Board issued the Discharger a Notice to Comply (CV-SALTS ID: 1904). On 22 October 2021, the Central Valley Water Board received a Salt Control Program Notice of Intent stating the Discharger chose to participate in the P&O Study. For the Nitrate Control Program, on 29 May 2020, the Central Valley Water Board issued the Discharger a Notice to Comply. In response, on 12 November 2021 Vita-Pakt chose to be a participant in the Kaweah Water Foundation Management Zone.

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 action to address violations of prior prohibitions, limitations, specifications, requirements, or provisions of rescinded waste discharge requirements or orders as allowed by law.