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CENTRAL VALLEY REGION

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WASTE DISCHARGE REQUIREMENTS ORDER R5-2024-0041

ORDER INFORMATION

Order Type(s):	Waste Discharge Requirements (WDRs)
Status:	Adopted
Program:	Non-15
Region 5 Office:	Fresno
Discharger(s):	Controlled Environment Foods Fund II (CEFF II) Tehachapi Property, LLC
Facility:	CEFF II Tehachapi Greenhouse
Address:	20570 Pellisier Rd, Tehachapi, CA 93561
County:	Kern County
Parcel Nos.:	For list of parcel numbers see Attachment A
Prior Order(s):	N/A

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 23 August 2024.

Date: 2024.09.16 15:22:33 -07'00'

Water Boards

PATRICK PULUPA,
Executive Officer

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GLOSSARY

ALR	Action Leakage Rate
APN(s)	Assessor Parcel Number(s)
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 or Control
CEFF II	Controlled Environment Foods Fund
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
CIMIS	California Irrigation Management Information System
cm/s	Centimeter per second
COC(s)	Constituent(s) of Concern
CQA	Construction Quality Assurance Plan
CV-SALTS	Central Valley Salinity Alternative for Long-Term Sustainability
DO	Dissolved Oxygen
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EC	Electrical Conductivity
FDS	Fixed Dissolved Solids
FEMA	Federal Emergency Management Agency
GAMA	Groundwater Ambient Monitoring and Assesment
gpd	Gallons Per Day
HDPE	High Density Polyethylene
LAA(s)	Land Application Area(s)
lbs/ac/yr	Pounds per Acre per Year

GLOSSARY

LCRS	Leachate Collection and Removal System
µg/L	Micrograms per Liter
µmhos/cm	Micromhos per Centimeter
MG	Million Gallons
mg/L	Milligrams per Liter
MRP	Monitoring and Reporting Program
MCL	Maximum Contaminant Level per Title 22
MPN	Most Probable Number
MUN	Municipal and Domestic Supply Beneficial Use
N	Nitrogen
NCP	Nitrate Control Program
ND	Non-Detect
P&O	Prioritization and Optimization
RL	Reporting Limit
RO	Reverse Osmosis
RWD	Report of Waste Discharge
RCRA	Resource Conservation and Recovery Act
SCP	Salt Control Program
SPRRs	Standard Provisions and Reporting Requirements
SERC	State Emergency Response Commission
TDS	Total Dissolved Solids
Title 22	California Code of Regulations, Title 22
Title 23	California Code of Regulations, Title 23
Title 27	California Code of Regulations, Title 27
TKN	Total Kjeldahl Nitrogen
Unified Guidance	Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance (USEPA, 2009)
USEPA	United States Environmental Protection Agency
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. Controlled Environment Foods Fund II (CEFF II) Tehachapi Property, LLC (Discharger) owns the CEFF II Tehachapi Greenhouse (Facility), a 64-acre greenhouse/hydroponic facility. The Facility is located at 20570 Pellisier Rd, Tehachapi, California, within Cummings Valley. The Facility is within Section 25, Township 32 South, Range 31 East, Mount Diablo Base and Meridian. The Facility location is also depicted on the Site Location Map in **Attachment A**.

2. Revol Greens CA, LLC (Revol Greens) currently leases 16 acres at the Facility. The Discharger plans to lease the remaining 48-acres of greenhouse to another vegetable grower in 2024. Revol Greens grows organic lettuce utilizing a hydroponic environment featuring a deep-water raft system where lettuce boards float on water. The proposed discharge contains wastewater from various sources, such as reverse-osmosis (RO) brine, floor drains, greenhouse and equipment condensate, boiler blowdown, and equipment process water. Approximately 30,000 gallons per day (gpd) of wastewater is currently generated from the growing and packaging process. At full lease (64 acres), the Facility will produce an estimated 70,000 gpd of wastewater.

3. The Facility is not currently regulated by Waste Discharge Requirements (WDRs). WDRs are needed for this Facility to ensure the discharge is in compliance with current water quality plans and policies.

4. The Facility and proposed land application areas (LAAs) are comprised of the Kern County Assessor Parcel Numbers (APNs) listed below. According to available Kern County tax records, all APNs are owned by the Discharger. The Facility and adjacent properties are depicted on the Facility Map in **Attachment B**.

   - 448-051-65
   - 448-051-66
   - 448-051-67
   - 448-051-68
   - 445-051-69
   - 448-051-70
   - 448-051-71
   - 448-051-72
   - 448-051-73
   - 448-051-74
   - 448-051-30
   - 448-051-31

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

a. Attachment A – Site Location Map
b. Attachment B – Aerial Photo of Facility and LAA
c. Attachment C – Process Flow Schematic
d. 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
e. Information Sheet

6. Also attached is **Monitoring and Reporting Program R5-2024-0041** (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 or adopted by the Central Valley Water Board.

Regulatory History

7. On 8 February 2018, Central Valley Water Board staff received a report of a potential discharge from the Facility. At the time the Facility was owned by Sunselect Produce Inc. (Sunselect). Central Valley Water Board staff conducted inspections of the Facility on 13 February 2018 and 25 April 2018 to evaluate potential discharge(s) from the Facility to waters of the United States (U.S.). At the time of the inspections, staff confirmed offsite discharges of wastewater from the Facility. On 16 August 2018, a Notice of Violation (NOV) was issued to Sunselect for the unpermitted discharge. The NOV required Sunselect to submit either a workplan to cease discharge (including threatening to discharge to waters of the U.S.), or a complete report of waste discharge application for coverage under WDRs.

8. CEFF II purchased the Facility from Sunselect in 2019. On 26 April 2021, Trinity Consultants submitted a Report of Waste Discharge (RWD) on behalf of the Discharger for the discharge of process wastewater from a hydroponic facility to two new lined evaporation ponds. An addendum to the RWD was submitted on 7 June 2021 for the proposed ponds. However, the ponds were never constructed, and the Discharger indicated that the Facility would pursue another direction for the discharge.

9. After multiple meetings between Central Valley Water Board staff and the Discharger during 2023, the Discharger submitted a revised RWD on 7 December 2023. The December 2023 RWD was prepared by Provost and Pritchard Consulting Group and proposed a discharge of up to 70,000 gallons per day (gpd) of process wastewater. The December RWD proposed various changes to the Facility including the following:

a. Waste Stream 1 – Discharge of up to 20,000 gpd of auger wastewater and water from the packaging floor drains into an existing unlined pond.

b. Waste Stream 2 – Discharge of up to 50,000 gpd of reverse osmosis (RO) brine water to a proposed lined storage pond prior to use as irrigation on 45 acres of land application area (LAA).

c. Waste Stream 3 – Discharge of up to 1,000 gpd of greenhouse condensate, wastewater from floor drains and equipment condensate, cogeneration, and boiler blowdown into a temporary lined collection pond. Minimal solids have been observed to collect in the temporary lined pond, and the Discharger anticipates consolidating this waste stream with Waste Stream 2 in the future.

Facility and Discharges

Existing Facility and Discharges

10. Facility operations include producing vegetable crops that are germinated from seed. With the current lease (i.e., Revol Greens), approximately 30,000 gpd of wastewater is generated from various sources at the Facility, which results in three separate waste streams. Approximately 10,000 gpd of the total wastewater generated is RO brine water.

11. Waste Stream 1 consists of auger discharge and discharge from the packaging facility floor drains. Most of the water is generated from the residual peatmoss utilized in the hydroponic growing beds removed during harvest. Equipment washdown also occurs during the auger dewatering process. The wastewater from Waste Stream 1 is currently stored in ten baker tanks located onsite. However, the baker tanks will be removed, and seasonal storage will be provided by the new lined pond. Waste Stream 2 consists of source water that is treated by the RO system, which is currently stored in a large tank. Waste Stream 3 consists of water collected in the greenhouse floor drains, greenhouse condensate, and equipment condensate that is then stored and evaporated in a small, lined pond. Source water is provided using a groundwater well located onsite.

12. Available effluent and source water quality data are limited to individual samples collected on 5 October 2023. Of the effluent quality samples, one was collected from the evaporative cooler (Waste Stream 3), one from the lined pond (Waste Stream 3), one from the RO brine via a spigot (Waste Stream 2), and two samples were collected from two of the ten baker tanks (tanks number one and four; Waste Stream 1). A water quality sample was also collected from a spigot connected to the source water storage tank. This data is summarized in Table 1 below.

Table 1 - Effluent Quality

Constituent/ Parameter	Unit	Source Water	Auger Discharge (Waste Stream #1) (see 1 below)	RO Brine (Waste Stream #2)	Floor Drains and Condensate (Waste Stream #3)
Ammonia (as N)	mg/L	ND (RL 1.0)	ND	ND	ND
BOD	mg/L	ND (RL 3.0)	18	31	71
Chloride	mg/L	38	57	89	44
EC @ 25 C	umhos/cm	710	1,050	1,500	730
FDS	mg/L	380	590	870	340
Nitrate (as N)	mg/L	4.7	ND (RL 1.2)	8.8	25
Sulfate (as SO_4)	mg/L	95	140	230	120
TDS	mg/L	440	685	1,000	480
TKN	mg/L	ND (RL 0.5)	3.7	1.6	49
Total Nitrogen	mg/L	4.7	4.4	10	78
TSS	mg/L	ND (RL 4.0)	48.5	ND	1,500
Boron	mg/L	ND (RL0.05)	0.09	0.05	0.14
Copper	ug/L	ND (RL 5)	12	ND	350
Iron	ug/L	ND (RL 100)	805	ND	17,000
Manganese	ug/L	7 (RL 5)	135	130	390
Sodium	mg/L	27	45	59	32
Zinc	ug/L	ND (RL 5)	17	9.8	300

1. Baker tank concentrations are the average of the sample concentration measured from baker tank numbers one and four.
2. The Discharger stated that the effluent concentrations for Waste Stream #3 may not be representative as the wastewater had been in the lined pond for some time.

13. Overall, the effluent quality in **Table 1** shows a considerable difference between the RO brine wastewater and the wastewater from the auger discharge stored in the baker tanks. Both waste streams exhibit elevated concentrations for salinity

(i.e., EC, FDS, and TDS). However, this may be partly due to the elevated salinity in source water.

14. Domestic waste generated at the Facility is handled by an individual onsite septic system regulated by Kern County Public Health Services.

Proposed Changes to Facility and Discharge

15. Currently, Revol Greens are the only growers that operate at the Facility. However, the RWD indicates that another grower will begin utilizing some of the existing additional greenhouse acreage sometime in 2024, which will result in an increase in flow.

16. At full lease, the discharge will be increased to a total average daily discharge of up to 70,000 gpd. Approximately 70 percent (50,000 gpd) of the wastewater generated will come from the RO brine. The remaining 30 percent of the wastewater will be generated from the auger discharge and wastewater collected from floor drains, greenhouse and equipment condensate, cogeneration and boiler blowdown. The additional flows will be from a similar growing process and are anticipated to be of similar quality to the current effluent quality.

17. CEFF II owns approximately 117 acres north of the Facility, of which approximately 103 acres may be used for crop production. The Discharger is proposing to designate a minimum of 45 acres of LAA to beneficially reuse wastewater from the Facility to irrigate crops. More information about the LAAs is provided in Findings 23 to 33.

18. CEFF II has one lined pond onsite that is used for storage and evaporation of wastewater, an unlined pond located on the northwest corner of the Facility, and an unlined stormwater pond. These WDRs require the submittal of a Construction Quality Assurance (CQA) plan, Operation, Maintenance, and Monitoring (O&M) plan, and Post Construction Report. The December 2023 RWD proposes to construct a lined storage pond that is intended to be used to store the RO discharge prior to its application to the LAA. The storage pond will be lined with a 60-mil high density polyethylene (HDPE) liner. Table 2 includes a summary of the capacities for each of the disposal ponds.

Table 2 - Disposal Ponds

Pond	Surface Area (ft^2)	Depth (ft)	Storage Capacity (MG)
Existing Lined Pond	23,000	5	0.7
Unlined Northwest Pond	60,000	5	1.8
Proposed Lined LAA Storage Pond	130,000	11	7.5

19. Waste Stream 1 will be discharged to the unlined northwest pond, where crops will be planted in the bottom of the pond during the spring when dried and harvested to uptake nutrients applied in the discharge.

20. Solids (primarily peatmoss and crop discharge) are collected from the greenhouse and removed from the wastewater stream by an auger that separates the solids from the wastewater. The solids are stored in containers on the Facility property in the southwest corner and are used as a soil amendment. Excess solids are trucked from the Facility to a landfill; however, the Discharger has expressed that they intend to use solids as a soil amendment in the future rather than hauling offsite. Further information is needed prior to disposing of solids as soil amendment, including characterization of the solid waste, a discussion of the potential water quality impacts, and how the waste will be managed to meet agronomic rates and preclude nuisance conditions (i.e., odors, vector attraction, etc.). This information may be submitted to the Central Valley Water Board consistent with Solids Disposal Specification H.5.

21. On 30 May 2024, Central Valley Water Board staff conducted a pre-permitting inspection of the Facility. During the inspection, staff observed that the Facility was well maintained, and the treatment system was in good working order. No odors were perceived within or outside the boundaries of the Facility. No crops were currently being grown on the proposed LAA. In addition, construction of the proposed lined storage pond at the LAA had not yet begun. During the inspection, the Discharger stated that Waste Stream 3 would be combined with Waste Stream 2 (RO brine) in the future. However, Central Valley Water Board staff require the submittal of a revised RWD prior to changing the discharge location of Waste Stream 3.

22. Stormwater from the Facility is collected via roof and surface drains and discharged to an existing unlined stormwater pond located within the southwest portion of the site. The existing stormwater pond has a surface area of 88,000 square feet and a storage capacity of 14 million gallons (MG). Stormwater is conveyed across the Facility into the stormwater pond via pipes and drains. Currently, the northwest pond receives some stormwater; however, the stormwater will be directed to the stormwater pond in the southwest. The Discharger is not required, at this time, to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Industrial Activities, State Water Board Order 2014-0057 DWQ, NPDES General Permit CAS000001, since all stormwater runoff is retained onsite and does not discharge into a water of the United States.

Land Application Areas (LAAs)

23. The proposed LAA will utilize a minimum of 45 acres out of a total 117 assessed acres owned by CEFF II. Currently, only Field 1 will be irrigated using effluent from the Facility. However, the Discharger indicated that the additional acreage is available for effluent disposal, if needed. Additionally, the RWD includes a statement regarding the use of wastewater for on-site dust control during the dry season; however, the RWD did not provide a discussion regarding potential impacts to water quality or how the Discharger intends to manage this practice, and further information is needed prior to applying wastewater for dust control. These WDRs include Provision I.10, which requires submittal of a Dust Control Workplan at least 90 days prior to the applying wastewater for dust control.

Table 3 - Land Application Areas

APN	Field	Assessed Acreage (ac)
448-051-65	3	18.5
448-051-66	3	18.8
448-051-67	1,3	19.7
448-051-68	1,2,3	20.0
448-051-69	1	20.0
448-051-70	1,3	20.0
Total	**---**	**117.0**

24. The revised RWD states that the Irrigation of the LAAs will be via surface irrigation (i.e., border checks and/or furrows). However, the Discharger may utilize sprinkler or micro-irrigation in the future. Supplemental irrigation is provided by one onsite irrigation well.

25. According to the December 2023 RWD, the LAA will be cropped with a combination of fodder crops such as sorghum, sudan grass, and wheat silage, or alfalfa hay. For a double cropped field, sorghum silage and sudan grass would be grown during the summer months and can be harvested multiple times. Wheat would be grown in the winter and harvested once. Alfalfa is typically harvested about once every 30 days between March through October and is kept on the field for multiple years.

26. Land application areas can be effectively managed to prevent excessive nitrogen and biochemical oxygen demand (BOD) loading by applying process water nutrients at agronomic rates and within the BOD loading limit, respectively.

27. The December 2023 RWD characterized the potential nitrogen, salt, and biochemical oxygen demand (BOD) loadings from the Facility's discharge to the

LAA. The two main gaseous nitrogen losses include ammonia volatilization and denitrification. Sources referenced in the RWD indicate that ammonia volatilization from fertilized soils can be up to 33 or 50 percent of applied ammonia nitrogen. During and after land application of food processing water via surface irrigation, soils can become temporarily deficient in oxygen causing a large percentage of nitrate to be lost as gaseous nitrogen to the atmosphere through bacterial denitrification. The RWD also references a 1983 Leach and Enfield study that estimated that 30 to 80 percent of nitrogen is removed by denitrification with surface flooding on two to seven day cycles. However, the Discharger conservatively did not account for volatilization after irrigation events and denitrification losses of nitrate-nitrogen in soil micropores due to the low nitrogen concentrations in the effluent.

28. Crop nitrogen removal rates were provided for alfalfa hay; however, no information was available for small grains (e.g., sudan grass or wheat) harvested as hay. Information was provided for wheat harvested as grain, however, the total amount of nitrogen removed via harvest of wheat grain does not represent total crop nitrogen uptake. Therefore, a harvest index of 0.5 was used to determine crop nitrogen uptake rates for small grains. The crop nitrogen uptake rates were referenced using *Nitrogen Concentrations in Harvested Plant Parts* by Dr. Daniel Geissler (2021). The *Western Fertilizer Handbook, 9th Edition* only provided a crop nitrogen uptake rate for alfalfa hay, which was 56 pounds per ton. This value was slightly less (11 percent) than the 62.3 pounds per ton crop nitrogen uptake rate provided by Geissler. As presented in Table 4 below, the nitrogen balance indicates a gross negative balance after crop nitrogen uptake (i.e., the discharge alone will not provide enough nitrogen for crop needs and additional fertilizers is needed).

Table 4 - Estimated Annual Nitrogen Loading Rate

Nitrogen Loading	Alfalfa Hay (lbs/acre/year)	Sorghum Silage (lbs/acre/year)	Wheat Silage (lbs/acre/year)
Gross Nitrogen Loading	35	35	35
Crop Nitrogen Uptake Rates (see 1 below)	436	58.7	262.5

1. Crop nitrogen uptake rates are based on the values from Geissler (2021) and assume a yield of 7 tons/acre for alfalfa hay, 8 tons/acre for sorghum silage, and 25 tons/acre for wheat silage.

29. The December 2023 RWD estimated that the combined discharge of effluent (RO brine) and supplemental irrigation will exceed a salt mass loading 3,000

pounds per year. Estimated annual salt loading in a normal rainfall year, as fixed dissolved solids (FDS), is summarized in Table 5 below.

Table 5 - Estimated Annual Salt Loading Rate

Field	Total FDS Applied (lbs/acre/year)
Field 1 (45 acres)	3,113

30. BOD loading calculations are presented in the December 2023 RWD for Field 1 and estimate a daily BOD loading of 0.3 lbs/ac/day. The BOD loading rate is significantly below the 100 lbs/ac/day threshold presented in *State Water Resources Control Board Order WQ-2021-0002-DWQ General Waste Discharge Requirements for Winery Process Water* (Winery General Order). Cycle averages were not presented but it was indicated that actual irrigation schedules will depend on management, rainfall, and logistics. The loading calculation demonstrates that the LAA has sufficient capacity for the Discharger to manage BOD loadings.

31. Although it has not been subject to a scientific peer review process, the California League of Food Processors' *Manual of Good Practice for Land Application of Food Processing/Rinse Water* (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. The 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.

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

33. Considering the BOD loading rate and the Manual of Good Practice, the low organic loading rate (0.3 lbs BOD/ac/day) to the LAA classifies the Facility as a Risk Category 1. Therefore, these WDRs establish a BOD cycle average loading rate of 50 pounds per acre per day to prevent odor conditions from occurring and to prevent groundwater degradation due to reduced metals. However, if sprinkler or micro-irrigation is used, the BOD cycle average loading rate may be increased to 100 pounds per acre per day. The proposed LAA storage pond will generally be empty around October first to prepare for the winter rainfall, according to the December 2023 RWD. From October through March, there is a net accumulation of stored water due to low crop water demand and rain. Stored water is drawn down due to less rainfall and high crop water demand from early March to September.

Site-Specific Conditions

Topography, Climate and Land Use

34. The Facility elevation is about 3,800 feet above mean sea level and the natural land surface slopes gradually to the south. The nearest surface water is Chanac Creek, which flows through the property, directly north of the Facility.

35. According to the Web Soil Survey published by the United States Department of Agriculture, Natural Resources Conservation Service (USDA NRCS), soils units associated with the LAA and Facility consist primarily of Steuber sandy loam (64 percent) and Havala sandy loam. Havala sandy loam has an irrigated land capability of 1, however, the USDA NRCS indicates Steuber sandy loam does not meet hydric criteria. “Class 1” soils have slight limitations that restrict their use.

36. The Facility and LAAs are in an arid climate characterized by dry summers and mild winters. The rainy season generally extends from October to April. The average annual precipitation in the area is about 10.8 inches. According to the California Irrigation Management Information System (CIMIS) weather station number 125 (Arvin Edison, California), the region has an annual evapotranspiration of 63.9 inches, with monthly averages ranging from 1.0 inches in December to 10.0 inches in July.

37. According to the Federal Emergency Management Agency’s (FEMA) Flood Insurance Rate Map (https://msc.fema.gov/portal), the Facility and LAA are in Zone X. Areas in Zone X are outside of the one percent annual chance of flood with average depth less than one foot.

38. Land uses in the vicinity of the Facility and LAA are primarily agricultural, light industrial, and rural residential. According to the California Department of Water Resources Land Use Viewer, Statewide Crop Mapping 2022, crops grown within

the vicinity include cole crops (e.g., broccoli, brussels sprouts, kale, collards, and cabbage) and truck crops (e.g., lettuce, tomato, melons, beets, celery, and strawberries). The LAA is bounded by another greenhouse directly to the north. The eastern property line of the Facility and LAA are bordered by disposal ponds associated with the California Correctional Institution, Tehachapi. The western and southern property lines are bounded by agriculture.

Groundwater and Subsurface Conditions

39. As described in Finding 11, source water is provided by one onsite well. The onsite supply well is not routinely monitored for depth to groundwater; however, a depth to groundwater measurement of 116 feet below ground surface (bgs) was recorded in 2014. Source water quality is provided in **Table 1**.

40. Currently, there are no active groundwater monitoring wells at the Facility or the LAA and depth to groundwater was not reported in the source water laboratory reports. According to the United States Geological Survey (USGS) and the California State Water Resources Control Board's, Groundwater Quality in the Southern Sierra Nevada, California, wells in the Tehachapi-Cummings basins are typically drilled to depths between 300 and 500 feet. Also, typical area wells consist of solid casing from land surface to a depth of about 100 to 225 feet and are screened or open below the solid casing.

41. According to the Department of Water Resources (DWR) California's Groundwater Bulletin 118 – Cummings Valley Groundwater Basin (Groundwater Basin 5-27), groundwater levels declined up to 100 feet from approximately 1950 to the mid- to late 1970s. Directly to the east of the LAAs is the California Department of Corrections and Rehabilitation California Correctional Institution - Tehachapi's disposal ponds, which were operated under WDRs Order 88-035. According to WDRs Order 88-035, groundwater generally flows to the west/northwest.

42. The Cummings basin was adjudicated in 1972, where the court system established a safe yield of 4,090 acre-feet per year. Tehachapi-Cummings County Water District established a reduced safe yield of 2,990 acre-feet in 2022.

43. A review of the DWR Groundwater Ambient Monitoring and Assessment Program (GAMA; https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/) shows several municipal/supply wells within a half-mile radius of the LAA. The first well, Well No.1 (CA1503682-001-001), is located onsite near Field 2, Well No. 2 (CA1503686-001-001) is located north of the Facility near another greenhouse owned by a separate entity, and Well No. 3 (NO3-1001985) is located directly north, across from the LAA and near the intersection of Giraudo Rd and Bailey Rd. According to GAMA, the top of the Well No. 3 screen is 300 feet bgs and has

a screen length of 160 feet. Well construction details are not available for Well Nos. 1 and 2. Groundwater quality for each of the wells is summarized in **Table 6** below.

Table 6 - Regional Groundwater Results

Constituent	Unit	Well No. 1 (see 1 below)	Well No. 2 (see 2 below)	Well No. 3 (see 3 below)
Calcium	mg/L	83 (1)	63 (1)	---
Chloride	µmhos/cm	30 (1)	37 (1)	---
Nitrate (as N)	mg/L	3.9 (10)	7.0 (22)	4.9 (23)
TDS	mg/L	450 (1)	430 (1)	---
EC	µmhos/cm	682 (2)	622 (1)	---
Iron	µg/L	150 (1)	1,400 (1)	---
Manganese	µg/L	<10 (1)	33 (1)	---
Arsenic	µg/L	<2 (4)	1.5 (2)	---

1. Data is from one to ten samples collected between May 2014 to August 2023. The number in the parentheses indicates the number of samples collected.
2. Data is from up to 22 samples collected between October 2018 to January 2024. The number in the parentheses indicates the number of samples collected.
3. Well No. 3 is monitored by UC Davis for Nitrate (as N) and the data is from 23 samples collected between August 2004 to January 2010.

44. Observed regional groundwater nitrate concentrations are below the Maximum Contaminant Level (MCL) of 10 mg/L, with averages ranging from 3.9 mg/L to 7 mg/L. Additionally, salinity in underlying groundwater was below the recommended secondary MCL for specific conductance with an average EC of 662 µmhos/cm. The iron concentration in Well No. 2 was 3.7 times higher than the secondary MCL of 300 µg/L.

Statutory Authority

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

> *[T]he 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.*

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

47. 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).)

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

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

49. 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

50. 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

51. 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.).

52. The Facility and LAAs lie within the Tulare Lake Hydrologic Basin, specifically the Grapevine Hydrologic Unit (No. 556.00), Tejon Creek Hydrologic Area (No. 556.20), as depicted on interagency hydrologic maps prepared by DWR in 1986. For ground water, the following beneficial uses have been identified and occur throughout the Basin: Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Industrial Service Supply (IND), Industrial Process Supply (PRO), Water Contact Recreation (REC-I), and Wildlife Habitat (WILD).

53. Chanac Creek flows between the Facility and Field 1. Chanac Creek is within the Grapevine Hydrologic Unit (No. 556.00) and is considered a Westside Stream, per the Basin Plan. The existing beneficial uses for Westside Streams include Agricultural Supply (AGR), Industrial Service Supply (IND), Industrial Process Supply (PRO), Water Contact Recreation (REC-1), Non-Contact Water Recreation (REC-2), Warm Freshwater Habitat (WARM), Wildlife Habitat (WILD), Rare, Threatened, or Endangered Species (RARE), and Ground Water Recharge (GWR).

Water Quality Objectives (WQOs)

54. The narrative WQO for chemical constituents in groundwater provides that groundwater shall not contain constituents in concentrations adversely affecting beneficial uses. MUN-designated groundwaters must meet the primary and secondary maximum contaminant levels (MCLs) specified in California Code of Regulations, Title 22[1] (See Title 22, §§ 64431, 64444, 64449.).

55. The numeric WQO for bacteria is expressed as the most probable number (MPN) of coliform organisms per 100 mL of water. For MUN-designated groundwater, the objective is an MPN of 2.2 organisms over any seven-day period.

56. The narrative WQO for toxicity provides that groundwater shall be maintained free of toxic substances in concentrations producing detrimental physiological responses in human, animal, plant, or aquatic life associated with designated beneficial uses.

57. To the extent necessary, narrative WQOs are quantified on a site-specific basis as numeric limits for constituents with potential to adversely impact designated beneficial uses. In determining a site-specific numeric limit, the Central Valley Water Board considers relevant published criteria.

58. In determining a numeric limit for salinity protective of agricultural supply (AGR), the Central Valley Water Board relies on general salt tolerance guidelines, which indicate that although 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 an eight- to ten-fold range in salt tolerance for agricultural crops (see Ayers & Westcot, *Water Quality for Agriculture* (1985), §

[1] 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.

2.3.). For this reason, appropriate salinity values 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.

59. The list of crops in the findings is not intended as a definitive inventory of crops that are or could be grown in the area where groundwater quality is potentially affected by the discharge, but it is representative of current and historical agricultural practices in the area and as proposed in the RWD.

Salt and Nitrate Control Programs

60. 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 with Resolution R5-2020-0057 (https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/resolutions/r5-2020-0057_res.pdf).

61. For the Salt Control Program, dischargers that are unable to comply with the 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 submitted a Notice of Intent on 20 April 2021 and was issued an identification number for the Salt Control Program **(CV-SALTS ID: 3583)**. The Discharger elected to participate in the P&O Study. In the interim, to maintain existing salt discharges and minimized salinity impacts this Order does the following:

    a. Sets a performance-based effluent limitation of 1,220 mg/L for FDS, calculated as a flow-weighted average concentration of Waste Streams 1 (auger discharge) and 2 (RO brine), on the discharge(s) of wastewater prior to blending with irrigation water to be sent to the LAA. The performance-based limit is based on 140% of the FDS concentration from Waste Stream 2 and accounts for fluctuations expected to occur prior to operations at full capacity, as well as the installation of an RO treatment system with increased efficiency that is anticipated to be installed Fall 2024.

62. For the Nitrate Control Program, dischargers 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). The Facility and LAA falls outside a groundwater basin identified in

the Nitrate Control Program (see Figure N-1) as the Nitrate Control Program only identifies groundwater basin located on the valley floor. Therefore, the Facility falls outside a designated groundwater basin and, therefore, is not at this time subject to the Nitrate Control Program. Nevertheless, a Notice to Comply with the Nitrate Control Program may be issued at a later date if the Central Valley Water Board Executive Officer determines it is necessary to protect water quality. Under these circumstances, it may be necessary to modify this Order to incorporate applicable Nitrate Control Program findings and requirements.

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.

Antidegradation Policy

64. The *Statement of Policy with Respect to Maintaining High Quality Waters in California*, State Water Resources Control Board Resolution 68-16 (Antidegradation Policy), which is incorporated as part of the Basin Plan, prohibits the Central Valley Water Board from authorizing degradation of "high quality waters" unless it is shown that the discharge(s) causing such degradation will be 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.

65. No groundwater monitoring wells are present at the Facility or the LAA. Given the limited availability of pre-1968 groundwater quality information, compliance with the Antidegradation Policy will be determined based on site-specific groundwater quality data available from 2004 and 2024, as discussed in Finding 43 and presented in Table 6.

66. Constituents of Concern (COCs) associated with discharge(s) from the Facility that could have the potential to degrade groundwater include salts (e.g., EC and FDS), nitrogen, and metals (e.g., iron and manganese). Waste stream 3 was not evaluated since it is currently discharged to a lined pond and evaporated. Table 13 summarizes relevant water quality data for these COCs.

Table 13—Constituents with Potential for Degradation

Sample Source	Auger Discharge/ Waste Stream 1 (see 1 below)	RO Brine/Waste Stream 2 (see 2 below)	Source Water (see 3 below)	Regional Groundwater Quality (see 4 below)	WQO
EC (µmhos/cm)	1,050	1,500	710	633	900 – 2,200
FDS (mg/L)	590	870	380	---	---
TDS (mg/L)	685	1,000	440	440	500 – 1,500
Total N (mg/L)	4.4	10	4.7	---	---
Nitrate as N (mg/L)	ND	8.8	4.7	5.3	10
Iron (µg/L)	805	ND	ND	780	300
Manganese (µg/L)	135	130	7	19	50

1. Waste Stream 1 (Auger discharge) data is an average of two samples collected on 5 October 2023, one sample was collected from Baker Tank #1 and #4. The data is summarized in Table 1.
2. Waste Stream 2 (RO brine) data was collected from a spigot on 5 October 2023 and is summarized in Table 1.
3. Source water consists of one sample collected from the source water well onsite and the data is summarized in Table 1.
4. Regional groundwater quality from three municipal wells is discussed in Finding 43 and summarized in Table 6.

a. **Salinity**. Based on the limited available groundwater data, regional groundwater quality in the vicinity of the Facility and LAAs is relatively good quality, with an EC of approximately 633 µmhos/cm and TDS of approximately 440 mg/L. The RWD proposes the discharge(s) from Waste Streams 1 (auger discharge) and 2 (RO brine) will have the following salinity concentrations: EC approximately 1,050 to 1,500 µmhos/cm, FDS approximately 590 to 870 mg/L, and TDS approximately 685 to 1,000 mg/L. These concentrations have the potential to degrade underlying groundwater quality and potentially result in groundwater exceeding applicable water quality objectives if not properly stored and discharged.

Waste Stream 2 (RO brine) will be stored in a lined pond prior to application to the LAA. This lined pond, if properly maintained, will significantly reduce the potential to degrade underlying groundwater quality. The RWD estimates that the discharge of Waste Stream 1 (up to 20,000 gpd) and Waste Stream 2 (up to 50,000 gpd) will result in a FDS loading of approximately 3,100 pounds per acre if the discharge is confined to the minimum acreage designated at the LAA (45 acres).

However, the Discharger has the flexibility to increase the LAA to the full irrigable acreage of 103 acres to reduce salt loading. In addition, effluent monitoring indicates that EC concentrations are still below the upper secondary MCL for EC of 1,600 µmho/cm.

To comply with the Salt Control Program, the Discharger elected to participate in the P&O Study, a basin-wide planning effort to develop a long-term salinity strategy for the Central Valley. Meanwhile, to help ensure that the Discharger continues to implement salinity reduction and control measures and protect groundwater quality, this Order includes a performance-based effluent limit of 1,220 mg/L for FDS as a flow-weighted average concentration to ensure the Facility's effluent salinity concentrations do not increase. Furthermore, this Order requires the Discharger to continue to comply with the Salt Control Program (i.e., participate in the P&O Study).

b. **Nitrogen**. Available data suggests that underlying groundwater quality is good regarding nitrate as nitrogen (around 5 mg/L). Total nitrogen levels in the effluent are approximately 10 mg/L. The Discharger has proposed various measures to reduce the Facility's potential impact on underlying groundwater such as lining the storage pond, applying process wastewater on the LAA at agronomic rates, and expanding the LAA. In addition, the crop nitrogen uptake rates (436 lbs/ac/yr) are much higher than the estimated nitrogen loading to the LAA (35 lbs/ac/yr).

c. **Metals.** Based on observed concentrations and secondary maximum contaminant levels, regional groundwater quality is poor regarding iron, and good quality in regard to the average concentration of manganese. The concentration of iron in waste stream one (800 µg/L) is slightly higher than the regional groundwater quality average concentration of iron (780 µg/L), both of which are much higher than the secondary MCL of 300 µg/L. Also, manganese concentrations in Waste Streams 1 and 3 are higher than the secondary MCL of 50 µg/L. Both concentrations of iron and manganese in the effluent have the potential to cause or contribute to groundwater exceeding applicable water quality objectives.

As discussed in the findings, iron and manganese are essential micronutrients for plant growth. It is expected that the crops at the LAA and the crops planted in the bottom of the unlined pond will aid in the removal of iron and manganese by uptaking the nutrients. However, to reduce iron and manganese concentrations in the discharge, this Order requires the preparation and implementation of an Iron and Manganese Source Evaluation and Minimalization plan. In addition, storage of the RO brine water in a lined pond and the low organic loading to the LAA (BOD

loading of 0.3 lbs/ac/day) is not expected to cause the dissolution of metals such as iron, manganese, and arsenic. Therefore, the discharge should not degrade groundwater quality for metals provided the Discharger implements proper source control efforts.

67. The Discharger implements, or will implement, as required by this Order the following measures, which the Central Valley Water Board has determined constitutes BPTC. These measures will minimize the extent of water quality degradation resulting from the Facility's discharges:

    a. Storage of RO brine in properly lined ponds with a hydraulic conductivity of less than $1x10^{-6}$ cm/s.

    b. Wastewater application at agronomic rates.

    c. Compliance with a BOD cycle average loading rate of 50 lbs/ac/day if flood irrigation is used or 100 lbs/ac/day if sprinkler or micro-irrigation is used.

    d. Solids are removed from the wastewater using an auger and disposed of offsite.

    e. Preparation and implementation of an Iron and Manganese Source Evaluation and Minimalization Plan.

    f. Compliance with a Performance-Based Effluent Limit for FDS.

    g. Compliance with the Salt and Nitrate Control Programs.

68. The Facility contributes to the economic prosperity of the region by providing for employment of 120 employees and plans to add 100 more employees in 2024 when the remaining greenhouses are used. The Facility contributes to the economic prosperity of the region by providing a necessary service and employment for the local community; by providing incomes for numerous aligned businesses; and by providing a tax base for local and county governments. The Facility's operation is consistent with the maximum interest of the people of the State of California. In addition, the reuse of process wastewater for irrigation of crops, rather than higher quality groundwater, is of further benefit to the people of the State.

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

California Environmental Quality Act

70. In 2013, Kern County determined the site to be exempt from CEQA requirements based on by right-use. By-right/ministerial considerations apply when a governmental agency exercises judgment in approving a project. These WDRs only authorize flows reflecting existing operations at the Facility and construction of a proposed lined pond to reduce its potential impacts on the environment. 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 California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq., pursuant to California Code of Regulations, title 14, section 15301 (CEQA Guidelines).

Other Regulatory Considerations

Water Code Section 13149.2

71. These WDRs regulate a facility that may impact a disadvantaged community and nearby tribal communities and includes an alternative compliance path that allows the Discharger time to come into compliance with an applicable water quality objective (i.e., salinity). The Discharger has selected the Alternative Salinity Permitting Approach for the Salt Control Program, which provides an alternative approach for compliance with salinity limits through implementation of specific requirements (i.e., support facilitation and completion of the Salinity P&O Study). The Central Valley Water Board has satisfied the outreach requirements set forth in Water Code section 189.7 by conducting outreach in affected disadvantaged and tribal communities through its notice and comment procedures. Pursuant to Water Code section 13149.2, and as discussed in the following 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 previously raised by interested persons with regard to those impacts.

72. The Central Valley Water Board anticipates that the issuance of this Order will result in water quality impacts within the scope of the Board's authority. Specifically, this Order authorizes the continued discharge of wastewater with salinity concentrations above applicable WQOs. The Facility's proposed effluent quality has an average EC around 1,500 µmhos/cm and TDS average around 1,000 mg/L. While these concentrations exceed (or could result in groundwater exceeding) the WQO for groundwaters designated for MUN (municipal and domestic supply), the following measures are available, and within the scope of

the Central Valley Water Board's authority, to address the impacts of the Facility to the nearby disadvantage communities in Kern County: 1) requiring active participation in the P&O Study and compliance with the Salt Control Program, which is intended to identify long-term salinity management and control practices and/or technologies, 2) maintain current discharge concentrations for salt (e.g., establishing a performance-based salinity limit), and 3) requiring application of wastewater to crops at agronomic rates with irrigation of supplemental water as needed. All of these measures are implemented by these WDRs.

Human Right to Water

73. 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 § 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, this Order requires compliance with the SCP. Although the Basin Plan's Exceptions Policy for Salinity allows participants in the SCP to obtain limited-term exceptions from MCLs for salinity, the SCP is consistent with the Human Right to Water Policy because their 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

74. For the purposes of California Code of Regulations, title 23 (Title 23), section 2200, the Facility has a threat-complexity rating of **3**-**B**.

    a. Threat Category "3" reflects waste discharges that could either degrade water quality without violating water quality objectives, or cause beneficial use impairments that are minor relative to Categories 1 and 2.

    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

75. 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).)

Stormwater

76. This Order does not cover stormwater and other discharges that are subject to the Clean Water Act's National Pollutant Discharge Elimination System (NPDES). Stormwater at the Facility is routed to and collected in one onsite unlined stormwater pond where it either percolates into the underlying soil or evaporates. Because all stormwater at the Facility is collected and disposed of onsite, the Discharger is not required to obtain coverage under the *Statewide General Permit for Storm Water Discharges Associated with Industrial Activities*, State Water Board Order 2014-0057-DWQ, NPDES General Permit CAS000001 (Industrial General Permit) at this time.

Scope of Order

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

78. Pursuant to Water Code section 13264, subdivision (a), the Dischargers are prohibited from initiating the discharge of new wastes (i.e., other than those described herein), or making material changes to the character, volume and timing of waste discharges authorized herein, without filing a new Report of Waste Discharge (RWD) per Water Code section 13260.

79. 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.

80. This Order is also strictly limited in applicability to those individuals and/or entities specifically designated herein as "Discharger," subject only to the Central Valley Water Board's designation of new or different parties as dischargers subject to this Order.

Procedural Matters

81. 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.

82. 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.)

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

84. 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 the Discharger and their agents, employees and successors shall comply with the following.

A. Standard Provisions

Except as expressly provided herein, the Dischargers shall comply with the Standard Provisions and Reporting Requirements dated 1 March 1991 (SPRRs), (https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/std_provisions/wdr-mar1991.pdf) 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. Treatment system bypass of untreated or partially treated waste is prohibited, except as allowed by Standard Provision E.2 of the SPRRs, the entirety of which is incorporated herein.

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

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

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

b. Conditions of "nuisance" or "pollution[2]," as defined per Water Code section 13050.

6. The discharge of process wastewater to the onsite septic system is prohibited.

7. Discharge of domestic wastewater to the process wastewater treatment system, lined ponds, and/or LAAs fields is prohibited.

C. Flow Limitations

1. The discharge of Waste Stream 1 (auger wastewater) from the Facility to the unlined pond (monitored at EFF-001 in the MRP) shall not exceed a monthly average daily flow limit of **20,000 gallons per day (gpd)**.

2. The discharge of Waste Stream 2 (RO brine) from the Facility to the LAAs (monitored at EFF-002 in the MRP) shall not exceed a monthly average daily flow limit of **50,000 gallons per day (gpd)**.

D. Salinity Limitations

1. To comply with the Salt Control Program, the Discharger has selected the Alternative Salinity Permitting Approach (i.e., participate in the Prioritization and Optimization [P&O] Study). Therefore, as discussed in the above Findings, these WDRs establish a **FDS performance-based effluent limitation of 1,220 mg/L** (as a flow-weighted average concentration of Waste Streams 1 [auger discharge] and 2 [RO brine]).

E. Discharge Specifications

1. Effluent storage and disposal shall not cause pollution or a nuisance as defined by Water Code section 13050.

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

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[2] Discharges of constituents covered by the Salt and Nitrate Control Programs are considered to not cause pollution conditions provided the Discharger remains in compliance with the Programs.

3. RO brine shall be stored in properly lined ponds with a hydraulic conductivity less than $1x10^{-6}$ cm/s.

4. All systems and equipment shall be operated to optimize discharge quality.

5. 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.

6. Objectionable odors shall not be perceivable beyond the limits of the Facility property 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 the pond(s) 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, 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 program shall be implemented to ensure that small coves and irregularities are not created around the perimeter of the water surface.

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

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

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

9. 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 condition 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.

10. Effluent storage ponds shall have sufficient capacity to accommodate allowable wastewater flow, 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.

11. The Discharger shall monitor residual solids accumulation in the effluent storage ponds annually and shall periodically remove residual solids as necessary to maintain adequate storage capacity. Specifically, if the estimated volume of sludge in the pond(s) threatens to impact the pond(s) storage capacity, the Discharger shall clean out the pond(s) within 12 months after the date of the estimate.

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

13. The Discharger shall regularly inspect the liner condition of the proposed lined process wastewater storage pond(s). The Discharger shall maintain and repair the liner as necessary to ensure the integrity of the pond liner is maintained and leakage from the liner is minimized.

14. On or about 1 October of each year, the available capacity in the effluent storage ponds shall at least equal the volume necessary to comply with Discharge Specifications E.9 and E.10.

15. 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.

F. Land Application Area Specifications

For the purpose of this Order, “land application areas” or “LAAs” refers to the discharge area described in Finding 17, specifically the 45-acre LAA.

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

2. 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 Dischargers.

3. 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 system. The annual nutritive loading to the LAAs, including the nutritive value of organic and chemical fertilizers and of the wastewater, shall not exceed the annual crop demand.

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

5. The BOD loading to the LAAs, calculated as a cycle average as determined by the methods described in the attached MRP, shall not exceed **50 pounds per acre per day (lbs/acre/day)** when flood irrigation is used, or **100 lbs/acre/day** when sprinkler or micro-irrigation practices are used.

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

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

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

9. Any irrigation runoff shall be confined to the LAA and shall not enter any surface water drainage course or storm water drainage system.

10. The LAAs 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 process wastewater.

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

12. As required by the MRP, LAAs 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.

13. No physical connection shall exist between wastewater piping and any domestic water supply well or irrigation well that does not have an air gap or reduced pressure principle devise.

G. Groundwater Limitations

Discharges of waste shall not cause or contribute to groundwater containing constituent concentrations in excess of the concentrations specified below or background quality, whichever is greater:

1. The Primary or Secondary MCLs established in Title 22 of the California Code of Regulations, excluding salinity.

2. 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).

H. Solids Disposal Specifications

1. For the purpose of this Order, residual solids including the solid and semisolids removed during the treatment process.

2. Residual solids shall be removed from screens, treatment systems, 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 soil in a mass or concentration that will violate the groundwater limitations of this Order.

4. If removed from the Facility, 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, reuse, biofuel feedstock, or land disposal at facilities (i.e., landfills, composting facilities, or 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 used 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 the separately issued **Monitoring and Reporting Program R5-2024-0041**, 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 discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.

3. 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.

4. **By 23 May 2025** the Discharger shall submit and implement an **Iron and Manganese Source Evaluation and Minimization Plan** that includes iron/manganese reduction goals and an implementation schedule. The

Plan shall identify existing iron/manganese control measures and propose additional measures to further reduce the iron/manganese of the discharge. The control plan shall include an estimate of the load reductions to be obtained and provide a description of the tasks, cost, and time required to investigate and implement the various elements in the Iron and Manganese Source Control and Minimization Plan. At a minimum, the plan shall include:

a. An estimate of all of the sources of pollutants contributing, or potentially contributing, to the loadings of iron/manganese in Facility's process wastewater discharge.

b. An analysis of the methods that could be used to prevent/reduce the discharge of iron/manganese into the facility, including changes in facility processes, reduction in chemical usage, changing chemicals used at the Facility.

c. A description of the Discharger's existing iron/manganese minimization programs (if any).

d. A description of the tasks, costs, and time required to investigate and implement various elements in the Iron and Manganese Source Evaluation and Minimization Plan.

e. A plan for monitoring the results of the Iron and Manganese Source Evaluation and Minimization Plan.

5. **By 21 November 2024**, the Discharger shall submit a **Design Report and Construction Quality Assurance (CQA) Plan** for the proposed RO brine effluent storage pond. The Design Report should contain the design plans and specifications for construction and lining of the RO brine storage pond. In addition, the Design Plan should include a site-specific geotechnical investigation conducted for the area around the proposed ponds including boring logs, soil assessment, and analysis on depth to first encountered groundwater. The CQA Plan should discuss how the subgrade and liner will be tested to ensure the liner is properly installed and that no leakage will occur. The CQA Plan should also discuss the leak detection system (if any), leak integrity testing (e.g., action leakage rate), and the pond's design life.

6. **By 90 days from the approval of the CQA Plan**, submit a **Pond Operation and Maintenance Plan** for the RO brine effluent storage pond. The Plan shall discuss how the Discharger will operate the pond to ensure that the pond liner integrity is maintained and regularly tested. The Plan shall address how all synthetically lined ponds at the Facility will be

operated and maintained and how CEFF II will operate/monitor the lined ponds leak detection system. The Plan shall propose the procedures for adequately monitoring each pond's liner integrity once a year. The Plan shall specify an Action Leakage Level for the lined pond's underdrain leakage detection system.

Also, the Plan shall discuss what actions will be taken if the pond liner monitoring shows that the pond liner integrity has been compromised (i.e., exceedance of the proposed Action Leakage Level). Furthermore, the Plan shall describe how the pond will be operated to maintain dissolved oxygen concentrations at or above 1.0 mg/L and to mitigate odors generated from the pond. If offensive odors are detected at the pond, the Plan shall describe what procedure(s) the Discharger will follow to resolve the odor issue. Additionally, the Plan shall include a detailed plan for pond sludge removal, treatment (dewatering and/or stabilization), and disposal. If sludge is proposed to be dried onsite, the Plan shall describe the measures to be used to control odors, flies, and other vectors, and the measures to control runoff or leachate from the sludge as it is drying.

7. **By 60 days after construction of the lined pond** the Discharger shall have completed construction of the proposed RO brine effluent storage pond and submit a **Post-Construction Report** that describes the pond construction details and certifies the effluent storage pond was constructed as proposed and per the CQA Plan.

8. **By 30 January 2025,** the Discharger shall submit a **Wastewater Nutrient Management Plan** that describes how the Discharger will apply wastewater to the LAA in accordance with these WDRs.

9. **Within 30 days of the beginning of farming and applying process wastewater to the LAA,** the Discharger shall certify that the LAA is being farmed and receiving process wastewater in a manner compliant with these WDRs and per the Wastewater Nutrient Management Plan. The confirmation shall confirm the crops being grown on the LAA can provide sufficient nutrient uptake for the application of the Facility's process wastewater.

10. **At least 90 days prior to applying wastewater for dust control,** the Discharger shall submit a **Dust Control Workplan** that describes how the Discharger will apply process wastewater onsite for dust control during the dry season. The Dust Control Workplan shall demonstrate how the discharge will be retained onsite, discuss potential impacts to underlying groundwater for constituents of concern (e.g. salinity and nitrogen), and include measures that prevent nuisance and odor conditions.

11. 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.

12. 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.

13. 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.

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

15. As described in the 1 March 1991 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.

16. 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.

17. In the event of any change in control or ownership of the Facility or LAAs, 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.

18. To assume operation as Discharger under this Order, a succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of coverage under this Order. The request must contain the requesting party'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.

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 the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

ADMINISTRATIVE REVIEW

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

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

ATTACHMENTS

ATTACHMENT A – Site Location Map

ATTACHMENT B – Aerial Photo of Facility and LAA

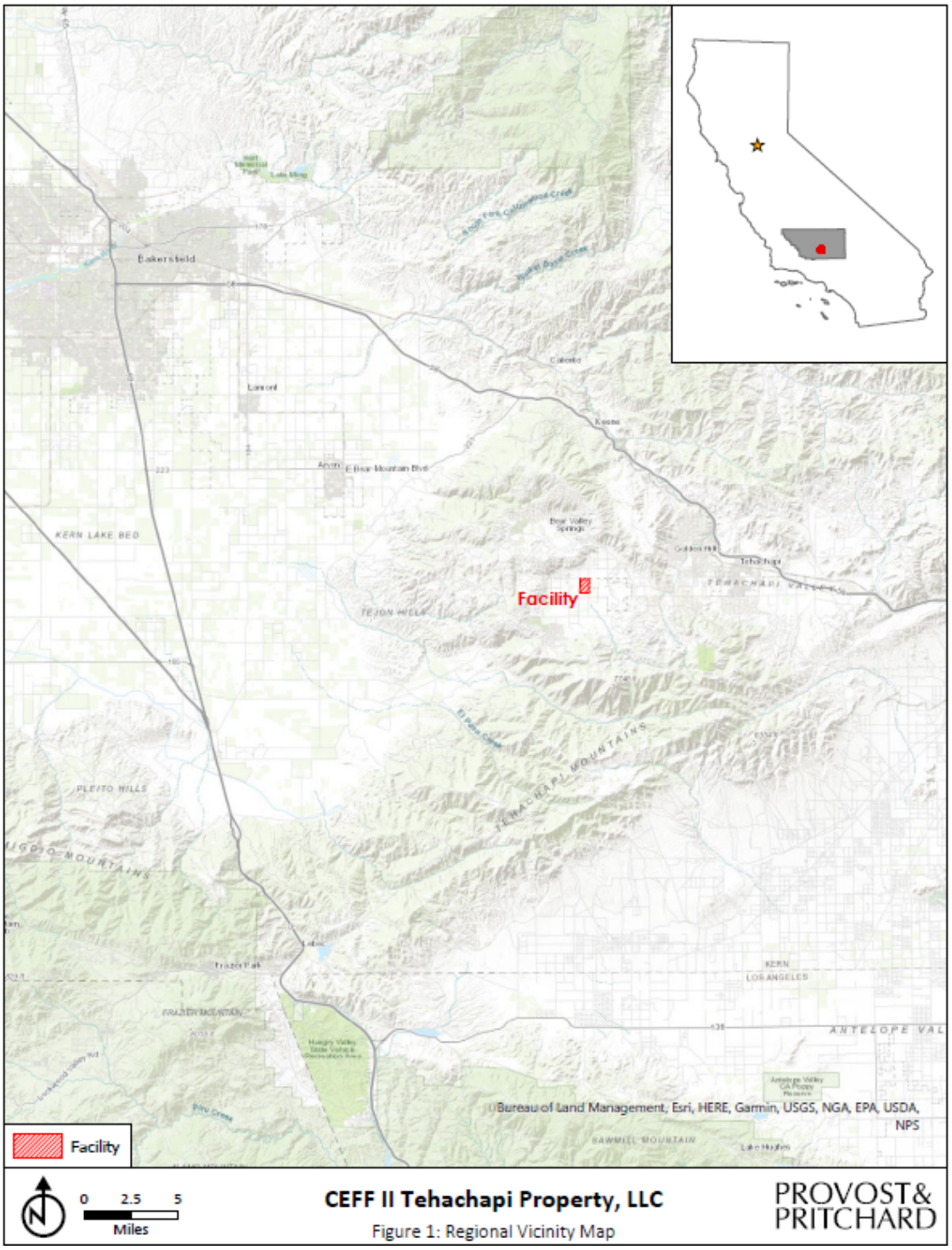
ATTACHMENT C – Process Flow Schematic

Standard Provisions & Reporting Requirements

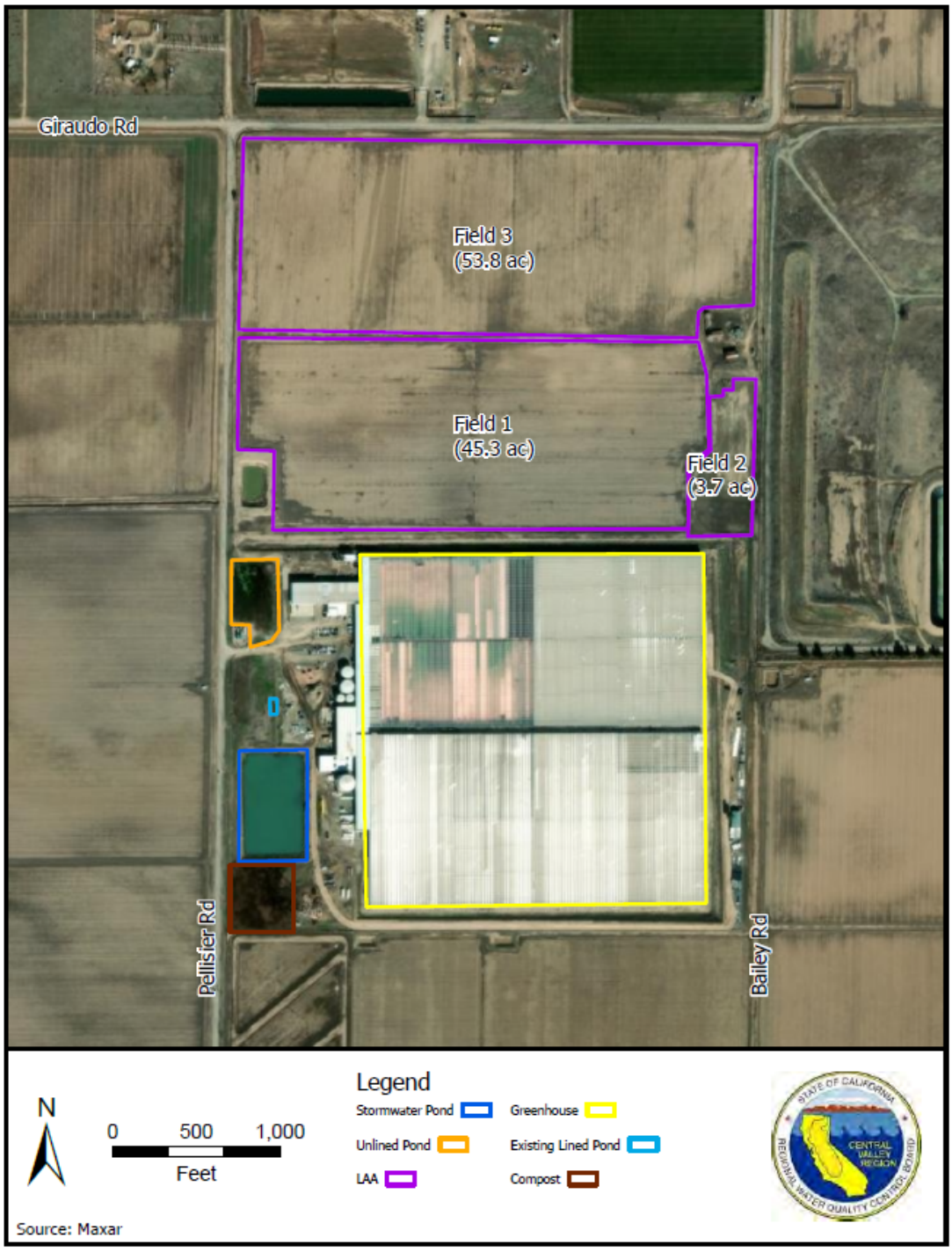
Information Sheet

Monitoring and Reporting Program R5-2024-0041

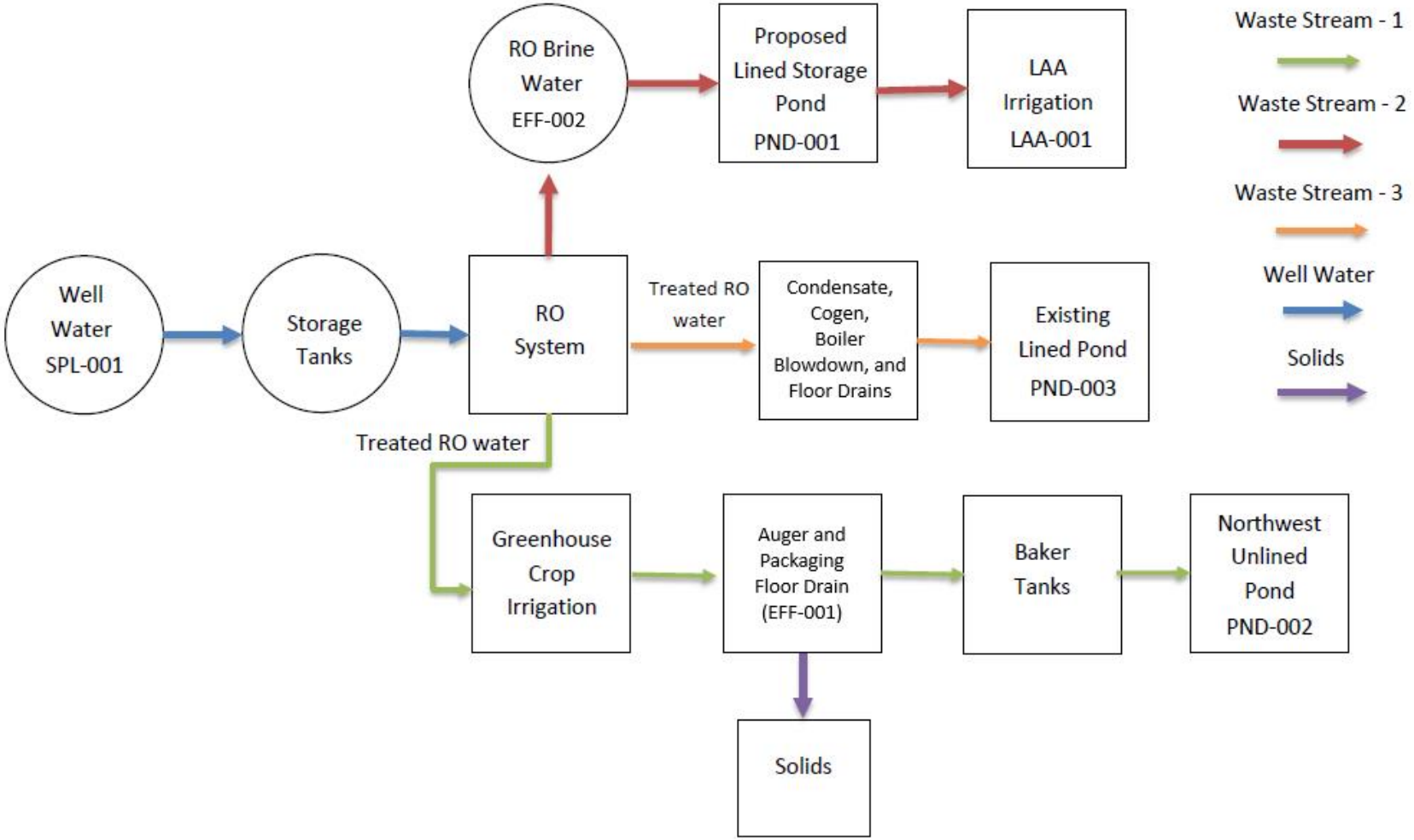
ATTACHMENT A–SITE LOCATION MAP



ATTACHMENT B–AERIAL PHOTO OF FACILITY AND LAA



ATTACHMENT C—PROCESS FLOW SCHEMATIC



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

Waste Discharge Requirements Order R5-2024-0041
For
Controlled Environment Foods Fund (CEFF II) Tehachapi Property, LLC
CEFF II Tehachapi Greenhouse
Kern County

INFORMATION SHEET

BACKGROUND

Controlled Environment Foods Fund II (CEFF II) Tehachapi Property, LLC (Discharger) owns a 64-acre greenhouse/hydroponic facility (Facility) in Cummings Valley, CA and currently leases 16-acres of greenhouses to Revol Greens CA, LLC (Revol Greens), with plans to lease the remaining greenhouses (48 acres) to another vegetable grower in 2024. The Facility has been in operation since approximately 2014; however, the Facility was purchased by the Discharger in 2019. The Facility property currently has up to 103 acres of land application areas (LAAs) available for the disposal of process wastewater.

The Facility is not currently regulated under Waste Discharge Requirements (WDRs). The previous owner, Sunselect Inc. (Sunselect), was issued a Notice of Violation on 16 August 2018 for discharging wastewater to Chanac Creek, a water of the United States (U.S.). In response, Sunselect was required to submit a workplan to cease discharge (including threatening to discharge to waters of the U.S., or a complete report of waste discharge application for coverage under WDRs. On 7 December 2023, CEFF II submitted a complete Report of Waste Discharge (RWD) consisting of a Form 200 and technical report. The RWD proposes a monthly average discharge flow of 70,000 gallons per day (gpd) of process wastewater to a lined storage pond and land applied to a minimum of 45-acres, with the potential to expand the discharge to 103 irrigable acres.

FACILITY AND DISCHARGE

Source water is provided by one onsite groundwater well with a capacity of 1,500 gallons per minute (gpm). The well provides water for both irrigation and domestic uses. Well water is stored in two storage tanks prior to being treated using a reverse osmosis (RO) system to remove impurities. Treated RO water is then stored using a tank and blended with nutrients after the water is discharged from the storage tank to promote plant growth. Excess irrigation and condensation are collected by floor drains. The growing beds utilized in the growing process are dewatered using an auger where solids (primarily peat moss) are separated from the wastewater. The resulting wastewater is referred to as Waste Stream #1 or auger discharge.

There are three separate waste streams at the Facility as summarized below:

1. Waste Stream 1 consists of up to 20,000 gpd of auger discharge, the water is stored in ten baker tanks and the solids (residual peatmoss from the growing beds) are used as a soil amendment. The wastewater will be stored in the onsite unlined Northwest Pond (1.8 million gallon [MG] capacity). Excess solids are trucked off and disposed of at a landfill.

2. Waste Stream 2 consists of up to 50,000 gpd of RO brine water from the RO process and is stored in a large tank prior to being discharged to the proposed lined pond at the LAA. RO brine water will be used as irrigation on 45 acres of alfalfa.

3. Waste Stream 3 consists of up to 1,000 gpd of wastewater collected in the greenhouse floor drains, greenhouse and equipment condensate, which is stored and evaporated in a small existing lined pond.

Waste Stream 2 and Waste Stream 3 are currently used in an evaporative cooling system within the greenhouses, however, according to the Discharger this practice is unsustainable. Unevaporated water is recirculated within the system. A new lined storage pond is proposed at the LAA to store RO brine water that will be utilized to irrigate alfalfa on 45 acres of land application area (LAA). The proposed lined storage pond will be constructed at the LAA and will be 360 feet by 360 feet by 11 feet; providing an approximate storage capacity of 7.48 MG. The proposed liner will be 60-mil high density polyethylene (HDPE). The water balance indicated the effluent capacity of the LAA was 22.8 MG and a substantial amount of freshwater irrigation is required to maintain crops and nutrient removal capacity. Therefore, sufficient acreage is available at the LAA for future expansion. LAA will be irrigated using furrows. Supplemental irrigation is provided using groundwater from an onsite well.

Effluent data is limited to one sample as described in Finding 12 of the WDRs and summarized in Table 1. The discharge contains elevated levels of iron and manganese, salts, primarily EC, TDS, and FDS, at concentrations above the applicable water quality objectives and/or background groundwater quality. However, this Order sets a performance based effluent limit calculated as a flow-weighted average concentration (Finding 60) for FDS. Similarly, this Order requires the preparation of an Iron and Manganese Source Evaluation and Minimization Plan (Provision I.4).

BOD loading to the 45-acre LAA would be around 0.3 lbs/acre/day. According to the California League of Food Processors Manual, a low organic loading rate to the LAA classifies the Facility as a risk category one. Thus, the WDRs prescribe an average BOD loading rate of 50 lbs/ac/day to the LAA.

INFORMATION SHEET

GROUNDWATER CONSIDERATIONS

Groundwater conditions are discussed in Findings 39 through 44 of the Order.

ANTIDEGRADATION

Antidegradation Analysis and conclusions are discussed in Findings 63 through 68 of the Order.

DISCHARGE PROHIBITIONS, LIMITATIONS, DISCHARGE SPECIFICATIONS, AND PROVISIONS

The proposed Order sets monthly average maximum daily flow limits of 50,000 gpd for the Facility's discharge of RO brine to the land application area (LAA), and 20,000 gpd from the auger discharge to the unlined pond. The Order also specifies a performance-based effluent limit of 1,220 mg/L for FDS (as a flow-weighted average concentration) since the Discharger selected to participate in the Prioritization and Optimization Plan for the Salt Control Program.

This Order also contains the following provisions including:

Provision I.4 requires the Discharger to submit an Iron and Manganese Source Evaluation and Minimization Plan.

Provision I.5 requires the Discharger to submit a Design Report and Construction Quality Assurance Plan for the proposed lined pond.

Provision I.6 requires the Discharger to submit a Pond Operation and Maintenance Plan.

Provision I.7 requires the Discharger to submit a Post Construction Report.

Provision I.8 requires the Discharger to submit an updated Nutrient Management Plan that describes how process wastewater will be applied to the LAA in accordance with these WDRs.

Provision I.9 requires the Discharger to certify that the LAA is being farmed upon receiving process wastewater in a manner that is compliant with these WDRs and per the Wastewater Nutrient Management Plan.

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 water for the State. Water Code Section 13268 authorizes assessment of civil administrative liability where appropriate. This Order includes influent, effluent, solids, groundwater, and water supply monitoring requirements. This

monitoring is necessary to characterize the discharge and evaluate compliance with the requirements and specifications of 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 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 with Resolution Resolution R5-2020-0057 (https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/resolutions/r5-2020-0057_res.pdf).

For the Salt Control Program, dischargers that are unable to comply with the 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. On 20 April 2021, the Discharger submitted a Salt Control Program Notice of Intent selecting to participate in the P&O Study.

For the Nitrate Control Program, dischargers 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). The Facility and LAA falls outside a groundwater basin identified in the Nitrate Control Program (see Figure N-1) as the Nitrate Control Program only identifies groundwater basin(s) located on the valley floor. Therefore, the Facility falls outside a designated groundwater basin and, therefore, is not subject to the Nitrate Control Program at this time. Nevertheless, a Notice to Comply with the Nitrate Control Program may be issued at a later date if the Central Valley Water Board Executive Officer determines it is necessary to protect water quality. Under these circumstances, it may be necessary to modify this Order to incorporate applicable Nitrate Control Program findings and requirements.

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 available and 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.