CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CENTRAL VALLEY REGION

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Regional Board Website (https://www.waterboards.ca.gov/centralvalley)

WASTE DISCHARGE REQUIREMENTS ORDER R5-2024-0001



ORDER INFORMATION

Order Type(s): Waste Discharge Requirements

Status: **Adopted**

Non-15 Discharges to Land Program: Sacramento (Rancho Cordova) Region 5 Office:

Discharger(s): **Bronco Wine Company**

Bronco Winery Facility:

6342 Bystrum Road, Ceres Address:

County: Stanislaus

Parcel Nos.: 041-046-022; 041-046-012; 041-046-013; 041-049-022, 041-

049-023, 041-050-001; 041-046-001; 041-046-007

Prior Order(s): 74-491, 92-081, 96-247

| | ERTIFICATION er, hereby certify that the following is a full, true, |
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| and correct copy of the order adopted Board, Central Valley Region, on 16 F | by the California Regional Water Quality Control |
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| | PATRICK PULUPA, Executive Officer |
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GLOSSARY

| APCD | Air Pollution Control District |
|------------|---|
| bgs | below ground surface |
| BOD5 | [5-day] Biochemical Oxygen Demand at 20? Celsius |
| BPTC | Best Practicable Treatment or Control |
| CAFO | Confined Animal Feeding Operation |
| CEQA | California Environmental Quality Act, Public Resources Code section 21000 et seq |
| CIP | Clean-in-place |
| CV-SALTS | Central Valley Salinity Alternatives for Long-Term Sustainability |
| DBCP | 1,2-Dibromo-3-chloropropane |
| DO | Dissolved Oxygen |
| DWR | Department of Water Resources |
| EC | Electrical Conductivity |
| ETo | Evapotranspiration |
| FDS | Fixed Dissolved Solids |
| FEMA | Federal Emergency Management Agency |
| IB | Infiltration Basin |
| LAAs | Land Application Areas |
| lb/ac/day | Pounds per acre per day |
| lb/ac/year | Pounds per acre per year |
| MCL | Maximum Contaminant Level |
| MGD | Million Gallons [per Day] |
| mg/L | Milligrams per Liter |

WASTE DISCHARGE REQUIREMENTS ORDER R5-2024-0001 BRONCO WINE COMPANY BRONCO WINERY STANISLAUS COUNTY

| MRP | Monitoring and Reporting Program | | |
|-----------|--|--|--|
| MUN | Municipal and Domestic Supply Beneficial Use | | |
| MW | Monitoring Well | | |
| N | Nitrogen | | |
| NA | Not Applicable | | |
| ND | not detected or non-detect | | |
| NE | Not Established | | |
| NPDES | National Pollutant Discharge Elimination System | | |
| OAL | Office of Administrative Law | | |
| PLC | Programmable Logic Controller | | |
| P&O Study | Prioritization and Optimization Study of the Salt Control Program | | |
| RCRA | Resource Conservation and Recovery Act | | |
| RWD | Report of Waste Discharge | | |
| RR | Reno Ranch | | |
| SCADA | Supervisory Control and Acquisition System | | |
| SERC | State of Emergency Response Commission | | |
| SPRRs | Standard Provisions and Reporting Requirements | | |
| TDS | Total Dissolved Solids | | |
| TID | Turlock Irrigation District | | |
| 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 | | |
| USEPA | United States Environmental Protection Agency | | |

| Wat. Code | Water Code |
|-----------|------------------------------|
| WDRs | Waste Discharge Requirements |
| WQOs | Water Quality Objectives |
| μg/L | Micrograms per Liter |
| μmhos/cm | Micromhos per Centimeter |

FINDINGS

The California Regional Water Quality Control Board, Central Valley Region, (Central Valley Water Board) finds that:

Introduction

- Bronco Wine Company (Discharger) owns and operates Bronco Winery (Facility), which includes infiltration basins and land application areas (LAAs), at 6342 Bystrum Road in Ceres, Stanislaus County (Sections 33 and 34, T4S, R9E, MDB&M), as shown on Attachments A and B, which are attached hereto. Discharger has owned the Facility since 1973.
- 2. On 20 December 2018, Discharger submitted a Report of Waste Discharge (RWD) that describes the discharge of waste at the Facility. According to the RWD, Bronco Winery generates process wastewater that is discharged to LAAs. A revised RWD with additional information was submitted on 22 October 2019 and additional data were submitted in 2020 and July, August, and December 2023.
- 3. As owner and operator of the Facility, the Discharger is responsible for compliance with waste discharge requirements (WDRs) regulating discharges of waste at the Facility.
- 4. The Facility is currently regulated under WDRs Order 96-247, adopted by the Central Valley Water Board on 20 September 1996. Order 96-247 allows a monthly average dry weather flow up to 0.65 million gallons per day (MGD). Due to the age of the existing permit, an updated Order is appropriate. Therefore, this Order rescinds and replaces Order 96-247.
- 5. The following materials are attached and incorporated as part of this Order:
 - a. Attachment A Site Location Map
 - b. Attachment B Site Features Map
 - c. Attachment C Wastewater Flow Schematic
 - d. Attachment D Concentrations Trends in Effluent
 - e. Attachment E Groundwater Well Location Map
 - f. Attachment F Groundwater Contour Map
 - g. Attachment G Electrical Conductivity Concentrations in Groundwater
 - h. Attachment H Total Dissolved Solids Concentrations in Groundwater
 - Attachment I Nitrate as Nitrogen Concentrations in Groundwater
 - j. Information Sheet

- k. Standard Provisions and Reporting Requirements dated 1 March 1991 (SPRRs) (1 March 1991 SPRRs)
- 6. Also attached is **Monitoring and Reporting Program (MRP) R5-2024-0001**, which requires monitoring and reporting for discharges regulated under these WDRs. The Discharger shall comply with the MRP, and any subsequent revisions thereto, as ordered by the Executive Officer or adopted by the Central Valley Water Board.

Facility and Discharge

- 7. The Facility occupies approximately 400 acres consisting of warehouses, offices, wine processing facilities, aboveground storage tanks associated with wine making operations, open and cropped areas, infiltration basins, and approximately 77 acres of LAAs, as shown on Attachment B. The area surrounding the Facility is used mostly for agricultural purposes, including a chicken farm (Gemperle) and several dairies, with the closest dairy located along the southwestern boundary of the Facility (Barnhart).
- 8. The winery processes between 300,000 and 450,000 tons of grapes annually, producing approximately 60 to 80 million gallons of wine per year. The Facility currently harvests grapes grown onsite and accepts grapes grown offsite.
- 9. The grapes are crushed, and the juices are fermented, pressed, filtered, stabilized, stored, bottled, and packaged onsite. The Facility operates 24 hours per day, seven days per week during the crush season (typically July through October), and 24 hours per day, five days per week during the remaining year.
- 10. Source water for the Facility's processing and potable uses can be supplied by three onsite water wells (Wells 1, 2, and 4), which are used selectively based on current water quality in each well. Based on the RWD, only Well 2 is currently used for potable water due to regional water quality issues (i.e., salt concentrations represented by electrical conductivity [EC] and total dissolved solids [TDS] in Wells 1 and 4 are relatively high when compared to concentrations in Well 2, as shown on Table 1 below). Water pumped from Well 2 is passed through granular activated carbon (GAC) filter to remove 1,2-dibromo-3-chloropropane (DBCP), a former pesticide used in the United States until 1985. As shown on the table below, concentrations of EC, sodium, chloride, and manganese exceed Water Quality Objectives (WQOs). The variations between the water quality of the source wells can influence the quality of the wastewater.

Information on the screen intervals and well depths for the source wells could not be found. Most recent water quality data for the supply wells for select constituents are summarized in Table 1.

The following acronyms are used in the table and throughout the Order.

EC = electrical conductivity mg/L = milligrams per liter

µg/L = micrograms per liter N = nitrogen µmhos/cm = microohms per centimeter

TKN = total Kjeldahl nitrogen

TDS = total dissolved solids

Potential Water quality objectives (WQOs) are based on the following:

Potential WQOs for EC and sodium = Agricultural Water Quality Goals Nitrate as N = Primary MCL TDS and Sulfate = Secondary Contaminant Level Chloride, iron, and manganese = Secondary Maximum Contaminant Levels (MCLs) (see Cal. Code of Regs., tit. 22, § 64449.)

Well 1 Well 4 **Potential** Well 2 Constituent **Units** (10/28/2021)(9/19/2018)**WQOs** (9/19/2018)EC µmhos/cm 1,620 742 1,410 700 **TDS** 980 840 500 mg/L 460 7.8 Nitrate as N 6.1 10 mg/L 4 **TKN** mg/L 0.37 NA 0.27 --Sulfate 160 24 140 250 mg/L Sodium mg/L 120 78 110 69 120 250 Chloride mg/L 110 84 1,200 53 Manganese μg/L 42 50 <50 <50 < 50 300 Iron µg/L

Table 1. Source Water Quality

- 11. Process wastewater is generated from wine making activities, boiler blowdown, tank washout, reverse osmosis reject, equipment cleaning and sanitation, bottling, and storm water from processing areas, as shown on Attachment C. Based on the RWD, distilling material generated at an offsite facility owned by the Discharger and located in Napa County is discharged to the treatment system. The material is made up of wine tanker truck rinse-out water and other wine residues, which have the same chemical constituents and concentrations as wastewater generated at this Facility. Per requirements of the U.S. Alcohol and Tobacco Tax and Trade Bureau, each tanker is tested for alcohol content before being discharged to the Facility's wastewater treatment system. This Order requires the Discharger to sample and analyze the trucked distilling material to verify this material has the same chemical constituents and relative concentrations as the wastewater generated at this Facility (Provision I.1.a).
- 12. Equipment at the Facility is cleaned and sanitized using potassium hydroxide, sodium hypochlorite, and citric acid.

- 13. The wastewater treatment system consists of a collection sump, storage tanks, five infiltration basins (IBs), and 77 acres of cropped LAAs.
 - a. Process wastewater, along with storm water runoff from processing areas, drains to a concrete collection sump, as shown on Attachment C.
 - b. Wastewater in the sump is continually monitored by a supervisory control and data acquisition (SCADA) system.
 - c. From the sump, wastewater is directed through one of two discharge lines (North Sump Line and South Sump Line), as shown on Attachment C. Both lines are equipped with flow meters. The South Sump Line directs the wastewater to all five infiltration basins (IB-1, IB-2, IB-3, IB-4, and IB-5) or to the LAAs. The North Sump Line can be used to transfer very heavy flows (e.g., large storm events) directly to IB-4, which is the largest of the basins and can manage the additional flow.
 - d. As shown on Attachment C, wastewater can be discharged to two 0.5-million gallon (MG) above-ground flow equalization tanks, located on concrete pads, prior to discharging to land. The equalization tanks are used intermittently based on Facility operation needs.
- 14. Wastewater flow volumes are measured from flow meters located on each of the discharge lines from the sump, as shown on Attachment C. The volumes of pumped wastewater are recorded in the irrigator's log sheet each time flow is redirected to a different LAA. A programmable logic controller (PLC) located at the sump collects data from the flow meters and measures the amount of wastewater discharged from the sump. The PLC communicates with the SCADA system that runs on a server in the Facility's computer room. Approximately every 15 minutes, the sump PLC transmits a signal to the SCADA system to log the flow meter values. On occasion, issues are encountered with the PLC logging flow meter values. When this occurs, the irrigator's log sheet is used for reporting flow rates. Table 2 summarizes the annual flow volumes in million gallons to the LAAs and infiltration basins.

Table 2. Wastewater Flow Volumes

| Year | Flows to LAA (MG) | Flows to Infiltration Basins (MG) | Total (Flows from Sump) (MG) |
|------|----------------------|---|------------------------------------|
| 2019 | 101 | 42 | 144 |
| 2020 | 74 | 41 | 115 |
| 2021 | 89 | 29 | 118 |
| 2022 | 76 | 33 | 110 |

15. Wastewater samples are collected from the sump prior to discharging to the LAAs and infiltration basins. Wastewater quality is summarized below. Units are mg/L unless noted otherwise. Effluent concentration trends are shown on Attachment D.

2019 2021 2020 2022 **Parameter** Ave Max Ave Max Ave Max Ave Max **FDS** 624 840 600 800 528 720 533 860 **TDS** 1,387 2,800 850 1,117 2,500 772 1,001 1,117 EC 1,489 1,098 1,411 1,505 1,162 1,208 1,583 1,039 (µmhos/cm) Total 21 36.7 17 70 19 66 14 45 Nitrogen <0.2 Nitrate as N 1.2 4.3 < 0.1 < 0.2 6.5 < 0.2 3.4 TKN 19 36 17 70 18 59 13 42 BOD₅ 3,067 4,800 2,363 3,800 2,725 | 8,800 1,762 3,600 Iron 0.80 0.18 0.81 0.43 (Note 1)

Table 3. Wastewater Quality

Note 1: Samples were analyzed for iron on an annual basis.

- 16. The Discharger may add a second sample location to the wastewater system. The new location would allow wastewater samples to be collected from the outflow from the storage tanks prior to discharging to the LAAs and infiltration basins (see Attachment C and Provision J.1.b).
- 17. From the sump, wastewater is either discharged to LAAs or infiltration basins. The 77 acres of LAAs are generally cropped with Sudan Grass, forage mixes, barley, and/or grapes. Crops grown in the discharge vicinity include, but are not limited to, grapes, almonds, melons, squash, cucumbers, and alfalfa (see the CADWR Land Use Viewer webpage) (https://gis.water.ca.gov/app/CADWRLandUseViewer/?page=home).
- 18. The LAAs are divided into three sections; Reno Ranch (RR)-1 is 35 acres; RR-2 is 19 acres; and RR-3 is 22.5 acres, as shown on Attachment B. The Facility has additional open and cropped acreage; however, wastewater is only applied to RR-1, RR-2, and RR-3. Wastewater is confined to the LAAs by a combination of natural site topography and berms constructed around the LAAs. Crops are irrigated using flood irrigation and tailwater is not generated.
- 19. Loading rates for BOD₅ and total nitrogen to the LAAs are summarized below.

Table 4. Loading Rates to the LAAs

| Parameter | 2019 | 2020 | 2021 | 2022 |
|------------------------------|------|------|------|------|
| BOD ₅ (lb/ac/day) | 88 | 45 | 64 | 38 |
| Total Nitrogen (lb/ac/year) | 218 | 134 | 162 | 118 |

- 20. The five infiltration basins (IB-1 to IB-5) are located just east of the processing area and cover approximately 15.7 acres (3.14 acres each). The basins are used for the disposal of wastewater and contact storm water via evaporation and percolation. The working hydraulic capacity of IB-4 is 21.3 acre-ft, while IBs 1, 2, 3, and 5's hydraulic capacity is approximately 9.4 acre-ft, all with 2 feet of freeboard. The basins slope inward generally to a maximum depth of five feet, including at minimum 2 feet of freeboard, except for IB-4, as noted below.
- 21. IB-4 has a maximum depth of ten feet because it is designed to accommodate wastewater and excess storm water directly from the impermeable surfaces of the Facility. IB-4 can be used in an emergency, if needed, to avoid overflowing the LAAs in an intense precipitation event where saturated soil conditions may exist.
- 22. Infiltration basin maintenance includes tilling the basins as needed to maintain sufficient capacity and percolation rates. Settled solids and sediments are tilled into the underlying soil. Material removed from the infiltration basins is not land applied and is hauled off-site for disposal at an appropriate facility.
- 23. Residual solids generated during processing, which includes stems, pomace, spent filter powder, oak chips, and diatomaceous earth, are either hauled off-site on a daily basis or temporarily stored on a large concrete area where runoff and leachate drains to the collection sump. The stored residual solids are then hauled off-site for various uses and disposal and are not land applied.
- 24. A revised water balance for a 100-year return period was submitted in December 2023. The Discharger requested an annual limit of 175 MG to allow operational flexibility. The 100-year water balance using the proposed annual limit of 175 MG demonstrates that total crop demand for the LAAs is greater than the volume of wastewater applied; therefore, supplemental irrigation is needed to meet crop demand. Supplemental irrigation water is applied directly to the LAAs from the nearby Turlock Irrigation District (TID) canal.
- 25. Storm water from non-processing areas is captured from an existing parking lot, roof, and driveway areas that do not come in contact with wastewater generated during processing. The storm water is either discharged to a storm water basin, located in the northern portion of the Facility, or to an area located on-site, southwest of the main processing area, and is used for irrigation in areas other than the LAAs.

26. Domestic wastewater generated at the facility is treated via a system of septic tanks and leach fields, permitted through the Stanislaus County Environmental Health Department. Domestic wastewater is not commingled with process wastewater and does not discharge to the LAAs or infiltration basins.

Regulatory History

- 27. Compliance history shows three effluent flow-rate limit exceedances, wastewater applied in excess of crop demand, effluent pH outside of the range limits, and dry groundwater monitoring wells. Most violations occurred between 2003 and 2010 and are summarized below.
 - a. In 2003 the Discharger received a notice of violation for degrading a water supply, exceeding allowable flow, applying wastewater in excess of crop demand, degrading groundwater to a degree that adversely affects agricultural use, submitting incomplete monitoring reports, and not calibrating meters.
 - b. During 2009 and 2010 the Discharger received one notice of violation for failure to submit a monitoring report, and 23 notices of violation for effluent pH limit exceedances.
 - c. In 2016 the Discharger received a notice of violation for deficient monitoring for each of the four calendar quarters of that year due to several dry monitoring wells.
- 28. On 7 September 2023, the San Joaquin Valley Air Pollution Control District (APCD) received an anonymous odor complaint, with the alleged source identified as Bronco Winery. The reporting party stated they have been calling for the last 8-10 years to report odor issues. However, the complaints were unable to be confirmed by APCD staff because the anonymous reporting party could not be contacted. APCD staff visited the Facility and conducted a survey of the surrounding area on 7 September 2023. The APCD inspector detected odors, consistent with winery process water and the neighboring poultry Confined Animal Feeding Operation (CAFO) (Gemperle Farms). The APCD notified the Discharger and the Central Valley Water Board of the unconfirmed complaint. Central Valley Water Boad staff conducted site visits on 21 September 2023 and 19 October 2023 and objectionable odors were not detected at the Facility boundary. No further actions were required.

Site-Specific Conditions

- 29. Land use surrounding the facility is generally agricultural, including vineyards and confined animal facilities.
- 30. The topography of the surrounding area is relatively flat. Surface water drainage from the facility is directly to local soil. The nearest surface water bodies to the

Facility are the Tuolumne River and the San Joaquin River, located approximately 5 miles north and 12 miles west, respectively.

- 31. Precipitation and evapotranspiration data were collected from the California Irrigation Management Information System (CIMIS) Modesto (#71), Patterson (#161), and Denair II (#206) stations, all less than 15 miles from the Winery. Average rainfall from 2013 through 2019 was 9.4 inches per year, and average reference evapotranspiration during the same time period was 57.4 inches per year. The 100-year annual precipitation was approximately 23.8 inches per year.
- 32. The site is not in a floodplain. The site is more than four miles away from the furthest extent of the FEMA-projected 500-year flood in the area.
- 33. Four soil map units comprise the LAA soils: Dinuba sandy loam, Dinuba sandy loam slightly saline-alkaline, Hanford sandy loam, and Tujunga sandy loam. These soils are generally shallow, coarse textured soils characterized by alluvium derived from granite and are moderate to very permeable. Based on monitoring well boring logs, as described in the Monitoring Well Completion Report dated March 2018, soil encountered beneath the Facility include alternating layers of silty sand, sandy silt, and fine to medium-coarse grained sand with minor amounts of clay.

Groundwater Conditions

34. The current groundwater monitoring network consists of 12 onsite shallow wells, as shown on Attachment E. Well construction details are summarized below.

Groundwater elevations are from the September 2023 monitoring report.

Table 5. Well Construction Details

| Well ID | Installation Year | Screened interval (ft bgs) | Well Depth (ft bgs) | Reference Point Elevation (feet) | GW Elevation (feet) |
|---------|----------------------|------------------------------------|---------------------------|---|---------------------------|
| MW-1 | | Abandoned in 2017 | and replace | ed by MW-1R | |
| MW-1R | 2017 | 25-45 | 45 | 73.10 | 47.68 |
| MW-2 | 1985 | data unavailable (Table Note 1) | 40 | 75.79 | 47.40 |
| MW-3 | 1985 | data unavailable (Table Note 1) | 36.6 | 77.83 | 47.68 |
| MW-4 | 1985 | data unavailable (Table Note 1) | 32 | 76.09 | 47.89 |
| MW-5 | 1985 | data unavailable (Table Note 1) | 32.2 | 76.41 | 49.01 |

| Well ID | Installation Year | Screened interval (ft bgs) | Well Depth (ft bgs) | Reference Point Elevation (feet) | GW Elevation (feet) |
|---------|--|------------------------------------|---------------------------|---|---------------------------|
| MW-6 | 1985 | data unavailable (Table Note 1) | 38.2 | 76.57 | 48.77 |
| MW-7 | approx. 1997 | no data | 40.4 | 78.84 | 49.45 |
| MW-8 | approx. 1997 | 20-50 | 50 | 76.57 | 49.57 |
| MW-9 | approx. 1997 | 20-50 | 50 | 78.07 | 49.62 |
| MW-10 | approx. 1997 | 15-35 | 35 | 80.57 | 48.74 |
| MW-11 | Abandoned in 2022 and replaced by MW-11R | | | | |
| MW-11R | 2017 | 26-41 | 45 | 78.11 | 48.59 |
| MW-12 | Abandoned in 2022 and replaced by MW-12R | | | | |
| MW-12R | 2017 | 32-47 | 55 | 78.56 | 48.75 |

Table Note 1: Based on the 2019 RWD, screen interval information could not be located, possibly due to deepening of the wells that was done in the 1990s due to droughts.

- 35. Monitoring well MW-1R is the replacement for MW-1 which was abandoned in 2017 because it was located within the alignment of new railroad spurs at the Facility. Monitoring wells MW-11R and MW-12R were installed because original wells MW-11 and MW-12 were dry; MW-11R and MW-12R were drilled approximately 15 feet deeper than the original wells. MW-11 and MW-12 were abandoned in 2022.
- 36. Average annual depths to groundwater are summarized below.

Table 6. Depths to Groundwater (feet bgs)

| 2019 | 2020 | 2021 | 2022 |
|------|------|------|------|
| 20.0 | 20.6 | 18.8 | 30.4 |

37. The horizontal groundwater flow directions vary widely, between south and north-northwest, due to seasonal precipitation, irrigation, and pumping of agricultural and source wells in the area. The regional flow direction is generally to the west-southwest toward the San Joaquin River Valley. The varying flow direction makes classifying monitoring wells as strictly up-, down-, or cross-gradient difficult. The

monitoring well classifications at this Facility are based on the RWD, previous evaluations, groundwater monitoring reports, and historical regional flow directions. However, the well classifications may be updated or changed based on future evaluations due to the fluctuations in the horizontal flow directions. Attachment F shows groundwater elevation contours for the third quarter 2023.

38. Annual average groundwater concentrations for all upgradient wells, which includes MW-9, MW-10, and MW-12R, for data collected between 2019 and 2022 are presented below. The potential Water Quality Objectives (WQOs) described in Tables 7, 8, and 10 are used for comparison purposes only and are based on:

EC - Agricultural Water Quality Goal TDS – Secondary MCL Nitrate as nitrogen - Primary MCL NE - not established

Table 7. Upgradient Annual Average Concentrations

| Constituent | 2019 | 2020 | 2021 | 2022 | Potential WQOs |
|---------------------|-------|-------|-------|-------|----------------|
| EC (µmhos/cm) | 3,234 | 1,236 | 1,202 | 1,177 | 700 |
| TDS (mg/L) | 730 | 822 | 795 | 755 | 500 |
| Nitrate as N (mg/L) | 14 | 11.9 | 7.4 | 11.9 | 10 |
| TKN (mg/L) | 1.25 | 0.8 | 1.7 | 2 | NE |

39. Annual average concentrations for all downgradient wells for data collected between 2019 and 2022 are presented below. The downgradient wells include MW-1 through MW-8 and MW-11R.

Table 8. Downgradient Annual Average Concentrations

| | 5 | | 5 | | |
|---------------------|-------|-------|-------|-------|----------------|
| Constituent | 2019 | 2020 | 2021 | 2022 | Potential WQOs |
| EC (µmhos/cm) | 1,559 | 1,566 | 1,658 | 1,863 | 700 |
| TDS (mg/L) | 952 | 1,067 | 1,156 | 1,125 | 500 |
| Nitrate as N (mg/L) | 13 | 18 | 19 | 14 | 10 |
| TKN (mg/L) | 2 | 2 | 2 | 2 | NE |

- 40. Concentrations of EC, TDS, and nitrate as nitrogen for groundwater data collected between 2019 and 2022 are shown on Attachments G, H, and I.
- 41. As a result of discharges to the infiltration basins, groundwater mounding has occurred beneath the basins, which is expected when using ponds and basins for disposal purposes. Concentrations of constituents associated with the discharge are higher beneath the infiltration basins when compared to upgradient and downgradient groundwater quality, indicating the infiltration basins are contributing

to groundwater impacts. Concentrations of EC, TDS, and nitrate as nitrogen in all wells, with the exception of downgradient wells MW-2 for TDS and MW-4 for nitrate as nitrogen, exceed potential WQOs, which are used for comparison purposes only. As groundwater flows away (downgradient) from the infiltration basins, concentrations of constituents decrease, indicating groundwater impacts from the basins are localized as compared to similar impacts from other nearby off-site agricultural operations. Average concentrations were calculated using the most recent groundwater data, which was collected on 1 January 2022 and 1 January 2023, as summarized below.

Table 9. Groundwater Mounding Associated with the Infiltration Basins

| Constituent | Units | Upgradient | Adjacent to Infiltration Basins | | Downgradient | |
|------------------------|----------|------------|------------------------------------|-------|--------------|-------|
| | | MW-9 | MW-3 | MW-5 | MW-2 | MW-4 |
| EC | µmhos/cm | 1,650 | 2,086 | 3,638 | 1,199 | 2,106 |
| TDS | mg/L | 1,088 | 1,350 | 2,200 | 799 | 1,350 |
| Nitrate as Nitrogen | mg/L | 20 | 20.5 | 34 | 13 | 4 |

42. There are several supply wells, domestic wells, and municipal wells within a mile radius of the Facility. To determine groundwater quality in the vicinity of the Facility, Geotracker <u>Groundwater Ambient Monitoring and Assessment</u> database (https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/) was utilized to search for water quality data in the surrounding area. The data, in milligrams per liter, are summarized below. Potential WQOs are used for comparison purposes only. Not detected is represented by ND.

Table 10. Groundwater Quality near Facility

| Constituent (mg/L) | Sample Date Range | Min | Max | Ave | Potential WQOs |
|---------------------|----------------------|-------|-------|-------|----------------|
| Nitrate as Nitrogen | 1957 - 2020 | 0.02 | 22.8 | 6.0 | 10 |
| TDS | 1957 - 2020 | 330 | 710 | 418 | 500 |
| Chloride | 1957 - 2020 | 23 | 60 | 32 | 250 |
| Sodium | 1957 - 2020 | 40 | 87 | 58 | 69 |
| Iron | 2003 - 2020 | 0.010 | 0.020 | 0.013 | 0.30 |
| Manganese | 1959 - 2020 | ND | 0.030 | 0.008 | 0.05 |

Legal Authorities

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

The regional board, after any necessary hearing, shall prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge..., with relation to the conditions existing in the disposal area or receiving waters upon, or into which, the discharge is made or proposed. The requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonable required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241.

- 44. 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).)
- 45. 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.

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

Basin Plan Implementation

- 47. This Order implements the Central Valley Water Board's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* (Basin Plan), which designates beneficial uses for surface water and groundwater within its scope and establishes WQOs necessary to preserve such beneficial uses. (See Wat. Code, § 13241 et seq.)
- 48. The beneficial uses of the nearest surface water, the Tuolumne River, as stated in the Basin Plan, are municipal and domestic supply; agricultural supply; industrial process supply; groundwater recharge; freshwater replenishment; navigation; water contact recreation; non-contact water recreation; commercial and sport fishing; warm freshwater habitat; cold freshwater habitat; estuarine habitat; wildlife habitat; migration of aquatic organisms; and spawning.

- 49. The beneficial uses of underlying groundwater as set forth in the Basin Plan are municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.
- 50. The Basin Plan establishes narrative water quality objectives for chemical constituents, tastes and odors, and toxicity in groundwater. It also sets forth a numeric objective for total coliform organisms.
- 51. The Basin Plan's numeric WQO for bacteria requires that the most probable number (MPN) of coliform organisms over any seven-day period shall be less than 2.2 per 100 mL in MUN groundwater.
- 52. The Basin Plan's narrative WQOs for chemical constituents, at a minimum, require MUN-designated waters to meet the MCLs specified in Title 22 of the California Code of Regulations (Title 22). The Basin Plan recognizes that the Central Valley Water Board may apply limits more stringent than MCLs to ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses.
- 53. The narrative toxicity WQO requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, animal, plant, or aquatic life associated with designated beneficial uses.
- 54. Quantifying a narrative WQO requires a site-specific evaluation of those constituents that have the potential to impact water quality and beneficial uses. The Basin Plan states that when compliance with a narrative WQO is required to protect specific beneficial uses, the Central Valley Water Board will, on a case-by-case basis, adopt numerical limitations in order to implement the narrative WQO.
- 55. In the absence of specific numerical water quality limits, the Basin Plan methodology is to consider any relevant published criteria. General salt tolerance guidelines, such as Water Quality of Agriculture by Ayers and Westcot and similar references indicate that yield reductions in nearly all crops are not evident when irrigation water has an electrical conductivity (EC) of less than 700 μmhos/cm. There is, however, an eight- to ten-fold range in salt tolerance for agricultural crops and the appropriate salinity values to protect agriculture in the Central Valley are considered on a case-by-case basis. It is possible to achieve full yield potential with groundwater EC up to 3,000 μmhos/cm, if the proper leaching fraction is provided to maintain soil salinity within the tolerance of the crop. The list of crops in Finding 17 is not intended as a definitive inventory of crops that are or could be grown in the area affected by the discharge.

Salt and Nitrate Control Programs Reopener

56. On 31 May 2018, the Central Valley Water Board adopted Basin Plan amendments incorporating the Salt Control Program and Nitrate Control Programs.

(Resolution R5-2018-0034.) The Basin Plan amendments became effective on 17 January 2020. On 10 December 2020, the Central Valley Water Board adopted revisions to the Basin Plan amendments with Resolution R5-2020-0057 (https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/re solutions/r5-2020-0057_res.pdf). Those revisions became effective on 10 November 2021.

- 57. For the Salt Control Program, the Central Valley Water Board issued the Discharger a Notice to Comply (CVSALTS ID: 1829). The Discharger submitted a Notice to Intent and elected to participate in the Prioritization and Optimization Study (P&O Study) under the Alternative Salinity Permitting Approach. In the interim, to maintain existing salt discharges and minimize salinity impacts, this Order does the following:
 - a. Requires the Discharger to continue efforts to control salinity in its discharges to the extent reasonable, feasible, and practicable; and
 - b. Sets a performance-based limit of **1,000 mg/L for FDS** (annual flow-weighted average) for the discharge of wastewater to the LAAs and infiltration basins.
- 58. For the Nitrate Control Program, dischargers that are unable to comply with stringent nitrate requirements will be required to take on alternate compliance approaches that involve providing replacement drinking water to persons whose drinking water is affected by nitrates. Dischargers may comply with the new nitrate program either individually (Pathway A) or collectively with other dischargers (Pathway B). For the Nitrate Control Program, the Discharger falls within Groundwater Basin 5-022.03 (San Joaquin Valley Turlock Sub-basin), a Priority 1 Basin. To comply with the Nitrate Control Program, the Discharger is a participant of the Turlock Management Zone (Valley Water Collaborative).
- 59. As these strategies are implemented, the Central Valley Water Board may find it necessary to modify the requirements of these WDRs to ensure the goals of the Salt and Nitrate Control Programs are met. This Order may be amended or modified to incorporate any newly applicable requirements. More information regarding this regulatory planning process can be found on the Central Valley Water Board's CV-SALTS website.

(https://www.waterboards.ca.gov/centralvalley/water issues/salinity)

Compliance with Antidegradation Policy

- 60. State Water Resources Control Board (State Water Board) Resolution 68-16, Policy with Respect to Maintaining High Quality Waters of the State prohibits degradation of high-quality groundwater unless it has been shown that such degradation:
 - a. Will be consistent with the maximum benefit to the people of the state;

- b. Will not unreasonably affect present and anticipated future beneficial uses; and
- c. Will not result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives.

Resolution 68-16 further requires that any discharge to existing high quality waters be required to meet waste discharge requirements that will result in the best practicable treatment or control (BPTC) of the discharge necessary to assure that pollution and/or nuisance will not occur and that the highest quality consistent with the maximum benefit to the people of the state will be maintained.

- 61. Groundwater monitoring wells were installed in 1985, late 1990s, and 2017. Compliance with the Antidegradation Policy is therefore based on all available groundwater data.
- 62. For the purposes of this Order, constituents/parameters in effluent with the potential to degrade groundwater and/or affect beneficial uses include salts (represented by EC, FDS, and TDS), and total nitrogen (primarily TKN and nitrate as nitrogen).
- 63. A summary of effluent quality compared to annual averages for upgradient and downgradient groundwater is presented below. Upgradient wells currently consist of MW-9, MW-10, and MW-12R, and downgradient wells currently consist of MW-1 to MW-8 and MW-11R. However, groundwater flow directions are highly variable due to local groundwater pumping for agricultural purposes in the area. For non-detect concentrations, half of the reporting limit was used for averaging purposes.

Effluent **Upgradient Downgradient** Potential Constituent Year (flow weighted Groundwater Groundwater **GW WQO** average) FC 1,099 2021 1,202 1,658 700 (µmhos/cm) 2022 1,043 1,177 1,863 **TDS** 2021 1,370 795 1,156 500 2022 766 755 1,125 (mg/L)2021 529 NA NA **FDS** NE 2022 562 NA (mg/L)NA Nitrate as N 2021 0.7 7.4 19 10 (mg/L)2022 1.1 11.9 14 TKN 1.7 2 2021 16 NE (mg/L)2022 13

Table 11. Data Comparison

a. Salinity (Electrical Conductivity). Electrical conductivity is a measure of the capacity of water to conduct electrical current and is an indicator of salinity. EC concentrations in effluent are higher than the potential WQOs of 700 µmhos/cm (agricultural water quality goal) and 900 µmhos/cm (secondary MCL). Concentrations in effluent for monitoring years 2019 through 2022 show a slight decreasing concentration trend (Attachment D).

Concentration trends for EC in upgradient and downgradient groundwater monitoring wells show no statistically significant trends, with the exception of EC in MW-3, which shows an increasing trend. MW-3 is located in the middle of the Facility, adjacent to the infiltration basins where groundwater mounding is occurring, as shown on Attachment F and described further in Finding 41. Average annual concentrations of EC in groundwater upgradient of the infiltration basins, based on current groundwater flow direction, in data collected between 2019 and 2022 from MW-9 and MW-10 range from 1,405 to 1,644 µmhos/cm. EC concentrations upgradient of the infiltration basins indicate that groundwater quality in the area is not identified as high-quality water for EC. While concentrations of EC are increasing in MW-3, concentrations of EC downgradient from MW-3 in MW-4 and MW-2 are less than MW-3 (see Attachment G). For the protection of groundwater, this Order requires the Discharger's continued participation in the Salt Contral Program. In addition, EC will continue to be monitored in effluent and groundwater.

b. Salinity (FDS and TDS). For the purposes of evaluation, TDS is representative of overall salinity. The best measure for total salinity in groundwater is TDS. In effluent, FDS is the non-volatile fraction of TDS that has the potential to percolate or leach into shallow groundwater. Therefore, the best measure for total salinity in the process wastewater is FDS.

Between 2019 and 2022, concentrations of FDS in effluent ranged from 260 to 860 mg/L, with a slight decreasing concentration trend, as shown on Attachment D. Because wastewater is land applied, the discharge of wastewater has the potential to degrade groundwater with respect to salinity. Wastewater treatment and disposal is via infiltration basins and a LAA system and therefore relies on site conditions to control the persistence and transport of constituents into groundwater.

The average TDS concentration in upgradient well MW-9 for data collected between 2019 and 2022 is 1,113 mg/L, which exceeds the potential water quality objective for TDS of 500 mg/L, as shown on Attachment H. This indicates the groundwater in the vicinity of the Facility is not identified as high-quality water regarding salinity, which is likely the result of long-term agricultural use of the area. MW-3, located adjacent to the infiltration basins, is the only well to show an increasing concentration trend for TDS. However, concentrations in wells downgradient from upgradient well MW-9 and the infiltration basins are relatively equivalent to or less than concentrations upgradient (MW-9).

The Discharger has elected to participate in the P&O Study under Pathway Option 2 for the Salt Control Program. For the protection of groundwater from discharges of wastewater, this Order establishes a **Performance-Based Effluent Limit of 1,000 mg/L for FDS** as a flow-weighted annual average in effluent. The Performance Based Effluent Limit was based on historical wastewater data collected from 2019 through 2022 and is intended to prevent increases of TDS concentrations in groundwater beyond current conditions. In addition, the limit allows flexibility in TDS concentrations because concentrations between the three source wells vary and can have high TDS concentrations (see Table 1). This Order requires the Discharger to continue its efforts to control and manage salinity in its discharge and comply with the Salt Control Program. Compliance with the Performance-Based Effluent Limit shall constitute compliance.

c. Nitrate as Nitrogen. For nutrients such as nitrate, the potential for groundwater degradation depends on wastewater quality and the ability of the vadose zone below the LAAs to support denitrification to convert nitrogen to nitrate or nitrogen gas (ammonia) before it reaches the water table.

TKN in effluent is the primary form of nitrogen, which can covert to nitrate with some loss from volatilization. Between 2019 and 2022, concentration trends for TKN in effluent show a slight decreasing trend, as shown on Attachment D.

Nitrate concentrations in upgradient and downgradient groundwater are generally greater than the Primary MCL of 10 mg/L, as shown on Attachment I. Upgradient groundwater conditions are likely the result of long-term agricultural use in the area and the presence of dairies and other CAFOs near the Facility. While the discharge to land from the Facility is impacting groundwater, the groundwater quality in the area is not identified as high-quality waters in regard to nitrate as nitrogen. Based on the *Turlock Early Action Plan* (TurlockESEnglish.pdf (valleywaterc.org)), dated 8 March 2021, the Facility is located in an area with ambient nitrate concentrations generally greater than the Primary MCL of 10 mg/L in the Upper Zone (defined as the portion of the groundwater basin, subbasin or management zone from which most domestic wells draw water in Resolution R5-2018-0034, adopted on 31 May 2018.)

To address the nitrate impacts associated with the Facility's discharge, this Order requires the Discharger to comply with the Nitrate Control Program. The Discharger has chosen to participate in Pathway B of the Nitrate Control Program and joined the Turlock Management Zone (Valley Water Collaborative).

64. High BOD₅ concentrations can produce anoxic conditions, which can cause the dissolution of metals (commonly iron and manganese), resulting in groundwater degradation. The existing Order did not require groundwater to be monitored for metals. This Order requires the Discharger to analyze groundwater for specific

- metals, such as dissolved iron and manganese, and to conduct an evaluation to identify ways to reduce organics in wastewater (Provision J.1.a).
- 65. Groundwater quality in the local area is not considered high-quality water with respect to nitrate as nitrogen and salinity. This is likely due to the long-term use of the area for agricultural purposes, as evident by the presence of DBCP, a pesticide used until 1985, and the high concentrations (exceeding potential WQOs) of TDS and nitrate as nitrogen in the surrounding groundwater. In addition, a former dairy is located just outside the southwestern Facility boundary. (It should be noted that Bronco Wine Company recently purchased this dairy and has plans to convert it to vineyards.) Because groundwater flow directions can vary widely and numerous sources of salts and nitrates are present in the area, it is difficult to determine the magnitude of impact the discharge has had on groundwater quality, although it is clear the discharge has contributed to groundwater degradation. This Order sets effluent and loading limits and requires further evaluation of ways to reduce organics in effluent.
- 66. This Order establishes effluent limits for the facility that will not unreasonably threaten present and anticipated beneficial uses or result in groundwater quality that exceeds water quality objectives set forth in the Basin Plan
- 67. To the extent that receiving waters are high quality for any constituent in the regulated discharge, the Discharger has implemented the following Best Management Practices (BMPs), which will minimize the extent of water quality degradation resulting from the Facility's discharge:
 - a. Residual solids, including pomace, wood chips, diatomaceous earth, stems, skin, and seeds, are hauled off site to reduce the organic load to the infiltration basins and LAAs.
 - b. Clean in place (CIP) systems in some process operations, allowing reuse of process water, reducing water usage and wastewater generation.
 - c. The use of high-pressure water instead of standard spray for washing, where practical, reducing wastewater volume.
 - d. The use of hot water for cleaning which reduces chemical usage.
 - e. The use of KOH instead of NaOH for cleaning, along with citric acid, reduces sodium loading in wastewater.
 - f. The use of ozonated water and chlorine dioxide for sanitation where practical, reducing total sodium hypochlorite use.
 - g. Even application of wastewater to the LAAs and irrigation areas to prevent ponding water.
 - h. Compliance with flow, BOD, and FDS limitations to maintain the current quality of effluent and groundwater.

- Enrollment in and compliance with the P&O Study for the Salt Control Program and the participation in Nitrate Control Program under CV SALTS.
- 68. The Discharger's implementation of the above-listed measures, which constitute BPTC, is expected to minimize the extent of further water quality degradation resulting from the Facility's continued discharge.
- 69. The economic prosperity of Central Valley communities and associated industry is of maximum benefit to the people of the State and provides justification for allowing the limited groundwater degradation that may occur pursuant to this Order. Degradation of groundwater by some typical waste constituents released with discharge from the Facility after effective source reduction, treatment and control, and considering the best efforts of the Discharger and magnitude of degradation, is of maximum benefit to the people of the state. Approximately 500 staff are on site during crush season, and offseason, the Facility employs approximately 400 staff.
- 70. Based on the foregoing, the adoption of this Order is consistent with the State Water Board Resolution 68-16.

California Environmental Quality Act

71. The issuance of this Order, which prescribes requirements and monitoring of waste discharges at an existing facility, with negligible or no expansion of its existing use, is exempt from the procedural requirements of the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq., pursuant to California Code of Regulations, title 14, section 15301.

Other Regulatory Considerations

72. These WDRs regulate a facility that may impact a disadvantaged community and/or tribal community and includes an alternative compliance path that allows the Discharger time to come into compliance with a water quality objective (i.e., nitrate and salinity). The Central Valley Water Board has satisfied the outreach requirements set forth in Water Code section 189.7 by conducting outreach in affected disadvantaged and tribal communities through its notice and comment procedures. Pursuant to Water Code section 13149.2, the Central Valley Water Board reviewed readily available information and information raised to the Board by interested persons concerning anticipated water quality impacts in disadvantaged or tribal communities resulting from adoption of these WDRs. The Board also considered environmental justice concerns within the Board's authority and raised by interested persons with regard to those impacts. No comments from disadvantaged and/or tribal communities were submitted.

- 73. The Central Valley Water Board anticipates that the issuance of these WDRs will result in water quality impacts within the scope of the Board's authority. Specifically, these WDRs authorize the continued discharge of wastewater with nitrate and salinity concentrations above applicable water quality objectives. The Central Valley Water Board has identified the following measures available and within the scope of its authority to address the impacts of the Facility to the nearby disadvantaged communities in Stanislaus County: 1) active participation in and compliance with the Salt Control Program and Nitrate Control Program, 2) compliance with a performance-based salinity limitation, 3) preparation and implementation of Salinity Evaluation and Minimization Plans to establish goals for potentially reducing salinity concentrations in the Facility's discharge, and 4) implementation of the BMPs described in Finding 67.
- 74. 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 and nitrate), which are designed to protect human health and ensure that water is safe for domestic use. For salinity and nitrate, this Order requires compliance with the SCP and NCP, respectively. Although the Basin Plans' Exceptions Policy for Salinity and Nitrate allows participants in these Programs to obtain limited-term exceptions from MCLs for salinity and nitrate, these Programs are consistent with the Human Right to Water Policy because their over-arching management goals and priorities include shortterm provision of safe drinking water to impacted users and long-term restoration of impacted groundwater basins and sub-basins where reasonable, feasible, and practicable.
- 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 seg. (See Title 27, section 20090, subd. (b).)
- 76. Based on the threat and complexity of the discharge, the Facility is determined to be classified as 2B as defined below:
 - a. Category "2" Those discharges of waste that could impair the designated beneficial uses of the receiving water, cause short-term violations of water quality objectives, cause secondary drinking water standards to be violated, or cause a nuisance.
 - b. Category "B" Any discharger not included in Category A that has physical, chemical, or biological treatment systems (except for septic

systems with subsurface disposal), or any Class 2 or Class 3 waste management units.

- 77. State Water Board Order 2014-0057-DWQ (NPDES General Permit CAS000001) specifies waste discharge requirements for discharges of storm water associated with industrial activities and requires submittal of a Notice of Intent by all industrial dischargers within its scope. All storm water at the facility is collected and discharged to the storm water basin or used for on-site irrigation. Storm water is not discharged offsite or discharged to waters of the U.S. Coverage under the NPDES General Permit CAS000001 is not required at this time.
- 78. The California Department of Water Resources sets standards for the construction and destruction of groundwater wells (hereafter DWR Well Standards), as described in California Well Standards Bulletin 74-90 (June 1991) and Water Well Standards: State of California Bulletin 74-81 (December 1981). These standards, and any more stringent standards adopted by the state or county pursuant to Water Code section 13801, apply to all monitoring wells used to monitor the impacts of wastewater storage or disposal governed by this Order.
- 79. Statistical data analysis methods outlined in the US EPA's Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance (Unified Guidance) are appropriate for determining compliance with the Groundwater Limitations of this Order. Depending on the circumstances, other methods may also be appropriate.

Scope of Order

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

Procedural Matters

- 84. All the above and the supplemental information and details in the attached Information Sheet, which is incorporated by reference herein, were considered in establishing the following conditions of discharge.
- 85. The Discharger, interested agencies, and interested persons were notified of the Central Valley Water Board's intent to prescribe the WDRs in this Order, and provided an opportunity to submit their written views and recommendations at a public hearing. (Wat. Code, § 13167.5.)
- 86. At a public meeting, the Central Valley Water Board heard and considered all comments pertaining to the discharges regulated under this Order.
- 87. The Central Valley Water Board will review and revise the WDRs in this Order as necessary.

REQUIREMENTS

IT IS HEREBY ORDERED that Waste Discharge Requirements Order 96-247 is rescinded (except for enforcement purposes) and, pursuant to Water Code sections 13263 and 13267, that the Discharger and their agents, employees, tenants, and successors shall comply with the following.

A. Standard Provisions

1. Except as expressly provided herein, the Discharger shall comply with the SPRRs dated 1 March 1991, which are incorporated herein.

B. Discharge Prohibitions

- 1. Discharge of wastes to surface waters or surface water drainage courses is prohibited.
- 2. No waste constituent shall be released, discharged, or placed where it will cause a violation of the Groundwater Limitations of this Order.
- Wastewater treatment, storage, and disposal shall not cause conditions of pollution and/or nuisance, as those terms are defined by Water Code section 13050.
- 4. Discharge of waste classified as "hazardous", as defined in the Title 22, section 66261.1 et seq., is prohibited.
- Discharge of waste classified as "designated", as defined in Water Code section 13173, in a manner that causes violation of Groundwater Limitations, is prohibited.

- 6. Objectionable odors shall not be perceivable beyond the limits of the property where the waste is generated, treated, and/or discharged at an intensity that creates or threatens to create nuisance conditions for an entire community, neighborhood, or any considerable number of persons.
- 7. Treatment system bypass of untreated or partially treated waste is prohibited, except as allowed by Section E.2 of the SPRRs.
- 8. Discharge of waste at a location or in a manner different from that described in the Findings is prohibited.
- Discharge of toxic substances into any wastewater treatment system or land application area such that biological treatment mechanisms are disrupted is prohibited.
- 10. Application of residual solids to the LAAs is prohibited.
- 11. Discharge of domestic wastewater to the process wastewater treatment system is prohibited.
- 12. Discharge of process wastewater to the domestic wastewater treatment system (septic system) is prohibited.

C. Flow Limitations

 Effluent flows from the wastewater sump shall not exceed the limits in Table 12 below. Flow volumes will include all water discharged from the sump. If supplemental irrigation water is needed for crop maintenance and is applied directly to the LAAs, that volume of water shall not be included in the flow volume. Supplemental irrigation water volumes shall only be included if the water is added to the wastewater sump prior to discharging to the infiltration basins and LAAs.

Table 12. Flow Limits

| Flow Measurement | Flow Limit |
|--|------------|
| Monthly Average Daily Flow (As determined by the total flow during the calendar month divided by the number of days in that month) | 0.65 MGD |
| Total Annual Flow (As determined by the total flow for the calendar year) | 175 MG |

D. Performance Based Effluent Limitations

1. A flow-weighted annual concentration of FDS in effluent to the LAAs and infiltration basins shall not exceed 1,000 mg/L. The FDS limit is a performance-based limitation since the Discharger has elected to participate in the P&O Study in the Salt Control Program. The purpose of this limit is to ensure the Discharger is implementing appropriate performance-based measures and maintaining existing discharge and groundwater quality.

E. Mass Loading Limitations

1. The blend of wastewater and contact storm water discharged from the sump to the LAA shall not exceed the following mass loading limits.

| Parameter | Units | Maximum Irrigation Cycle Average | Annual Maximum |
|------------------|------------|--|-------------------|
| BOD ₅ | lb/ac/day | 100 | |
| Total Nitrogen | lb/ac/year | | Crop Demand |

Table 13. Mass Loading Limits for LAAs

F. Discharge Specifications

- 1. The discharge shall remain within the permitted waste treatment/ containment structures, infiltration basins, and land application areas at all times.
- 2. The Discharger shall operate all systems and equipment to optimize the quality of the discharge.
- 3. 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.
- 4. As a means of monitoring odors, the dissolved oxygen (DO) content in the upper one foot of the infiltration basins shall not be less than 1.0 mg/L for three consecutive sample events. If DO concentrations are less than 1.0 mg/L for three consecutive sampling events and offensive odors are perceivable beyond the property limits for an entire community or neighborhood, or considerable number of persons, the Discharger shall report the findings to the Central Valley Water Board in writing within 10 days and shall include a specific plan to resolve the odors within 30 days.
- 5. The Discharger shall design, construct, operate, and maintain all infiltration basins sufficiently to protect the integrity of containment dams and berms and prevent overtopping and/or structural failure. The operating freeboard in any

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

- 6. Wastewater treatment, storage, and infiltration basins or structures shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, and ancillary inflow and infiltration during the winter while ensuring continuous compliance with all requirements of this Order. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.
- 7. On **1 October** of each year, available capacity shall at least equal the volume necessary to comply with Discharge Specifications F.5 and F.6.
- All infiltration basins 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.
- Newly constructed or rehabilitated berms or levees (excluding internal berms
 that separate basins or control the flow of water within a basin) shall be
 designed and constructed under the supervision of a California Registered
 Civil Engineer.
- 10. The Discharger shall monitor sediment accumulation in the wastewater infiltration basins at least every five years beginning in 2025, and shall periodically remove sediment or till the basins as necessary to maintain adequate storage capacity.
- 11. Storage of residual solids on areas not equipped with means to prevent storm water infiltration, or a paved leachate collection system is prohibited.

G. Groundwater Limitations

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

- Constituents in concentrations that exceed either the Primary or Secondary MCLs, as applicable, established in Title 22, excluding salinity and nitrate as nitrogen since the Discharger has chosen to participate in the Salinity Permitting Approach for the Salt Control Program and has enrolled in Path B for the Nitrate Control Program.
- Contain taste- or odor-producing constituents, toxic substances, or any other constituent in concentrations that cause nuisance or adversely affect beneficial uses.

H. Land Application Area Specifications

- 1. The Discharger shall ensure that all water is applied and distributed with reasonable uniformity across each LAA field, consistent with good agricultural irrigation practices and reasonable agronomic rates.
- 2. Crops or other vegetation (which may include, but is not limited to pasture grasses, native grasses, orchard trees, and/or ornamental landscaping) shall be grown in the LAAs or any areas where on-site irrigation using wastewater may occur. Crops shall be selected based on nutrient uptake, consumptive use of water, and irrigation requirements to maximize crop uptake.
- 3. Land application of wastewater shall be managed to minimize erosion.
- 4. The LAAs and on-site irrigation areas shall be managed to prevent breeding of mosquitoes or other vectors.
- 5. LAAs shall be designed, maintained, and operated to comply with the following setback requirements:

Table 14. Setbacks

| Setback Definition | Minimum Irrigation Setback (feet) | |
|---|--------------------------------------|--|
| Edge of LAA to property boundary | 25 | |
| Edge of LAA to manmade or natural surface water drainage course | 50 | |
| Edge of LAA to domestic water supply well | 100 | |

Note: This Facility is an existing facility that may not comply with the setbacks provided herein. A noncomplying wastewater system shall trigger further evaluation of the setbacks.

- 6. 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 Dischargers shall temporarily stop discharging immediately in the area of concern and implement corrective actions to ensure compliance with this Order.
- 7. If used, sprinkler heads shall be designed, operated, and maintained to create a minimum amount of mist.
- 8. Discharge to the LAAs shall not be initiated when the ground is saturated.
- 9. Any irrigation runoff (tailwater) shall be confined to the LAAs or returned to the treatment system and shall not enter any surface water drainage course or storm water drainage system.

I. Solids Disposal Specifications

For the purpose of this Order, residual solids include organic matter removed by screens and soil sediments removed during the treatment process. Residual solids means organic food processing byproducts such stems, pomace, spent filter powder, oak chips, and diatomaceous earth that will not be subject to treatment prior to disposal.

- 1. Residual solids shall be removed from screens, sumps, and infiltration basins as needed to ensure optimal operation, prevent nuisance conditions, and maintain adequate storage capacity.
- 2. Any handling and storage of solid waste, and residual solids shall be controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or concentration that will violate the groundwater limitations of this Order.
- 3. If removed from the site, solid waste, and residual solids shall be disposed of in a manner consistent with Title 27, division 2. Removal for reuse as animal feed, or land disposal at facilities (i.e., landfills, composting facilities, and/or soil amendment sites operated in accordance with valid waste discharge requirements issued by a Regional Water Board) will satisfy this specification.
- 4. Any proposed change in residual solids use or disposal practice shall be reported in writing to the Executive Officer at least 90 days in advance of the change.

J. Provisions

- 1. The following reports shall be submitted pursuant to Water Code section 13267:
 - a. **By 1 September 2024,** the Discharger shall submit a *Wastewater Organics Reduction Evaluation*. The evaluation will describe actions the Discharger may take to reduce organics in wastewater, what actions may be implemented to reduce the organics, and a timeline for the implementation of the proposed actions.
 - In addition, the evaluation shall include the characterization of the distilling material discharged into the Facility's treatment system from the Discharger's Napa Facility. The evaluation shall include analytical data for the material, volumes, and an explanation of how this material is or is not considered consistent with the quality of wastewater generated at the Bronco Winery.
 - b. Within 30 days of relocating or adding an additional wastewater sample location, the Discharger shall submit a letter to the Central Valley Water Board describing the new sample location and how the new location will provide data that are considered representative of wastewater quality land applied in either the infiltration basins or LAAs. If a new sample port is installed at the effluent from the storage tanks, the effluent limits included in this Order will be applicable to this location if wastewater is discharged to land from the storage tanks. Wastewater samples collected from either the tank effluent or the sump are required to meet the effluent limits in this Order.
 - c. If sediment from the infiltration basins is to be removed and disposed of offsite, then at least **180 days** prior to removal and disposal, the Discharger shall submit an Infiltration Basin Cleanout Plan. The plan shall describe action to be taken for sediment removal, drying, and disposal. The plan shall specifically describe the measures to be used to control runoff or percolate from the removed material as it is drying, and a schedule that shows when sediments are removed from the site prior to the onset of the rainy season **(1 October)**.
- 2. In accordance with Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans for investigations and studies, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified

professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall bear the professional's signature and stamp.

- 3. The Discharger shall submit the technical reports and work plans required by this Order 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.
- 4. The Discharger shall comply with Monitoring and Reporting Program R5-2024-0001, which is part of this Order, and any revisions thereto as ordered by the Executive Officer. The submittal dates of Discharger selfmonitoring reports shall be no later than the submittal date specified in the MRP.
- 5. The Discharger shall comply with the SPRRs.
- 6. 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.
- 7. 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 include adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the Discharger when the operation is necessary to achieve compliance with the conditions of this Order.
- 8. The Discharger shall use the best practicable control technique(s) including proper operation and maintenance, to comply with this Order.
- 9. As described in the SPRRs, the Discharger shall report promptly to the Central Valley Water Board any material change or proposed change in the character, location, or volume of the discharge.

- 10. 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. § 11023), the Discharger shall also report the same information to the Central Valley Water Board within 15 days of the report to the SERC.
- 11. At least 90 days prior to termination or expiration of any lease, contract, or agreement involving disposal or off-site reuse of effluent, used to justify the capacity authorized herein and assure compliance with this Order, the Discharger shall notify the Central Valley Water Board in writing of the situation and of what measures have been taken or are being taken to assure full compliance with this Order.
- 12. In the event of any change in control or ownership of the facility, the Discharger must notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board.
- 13. To assume operation as Discharger under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Central Valley Water Board, and a statement. The statement shall comply with the signatory paragraph of SPRRs Standard Provision B.3 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the Water Code. If approved by the Executive Officer, the transfer request will be submitted to the Central Valley Water Board for its consideration of transferring the ownership of this Order at one of its regularly scheduled meetings.
- 14. In order to rescind WDRs that are no longer necessary because the discharge to land permitted under this Order has ceased, the Discharger must contact the Central Valley Water Board's Compliance and Enforcement Unit to determine appropriate wastewater treatment system closure requirements.
- 15. A copy of this Order including the MRP, Information Sheet, Attachments, and SPRRs shall be kept at the Facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.

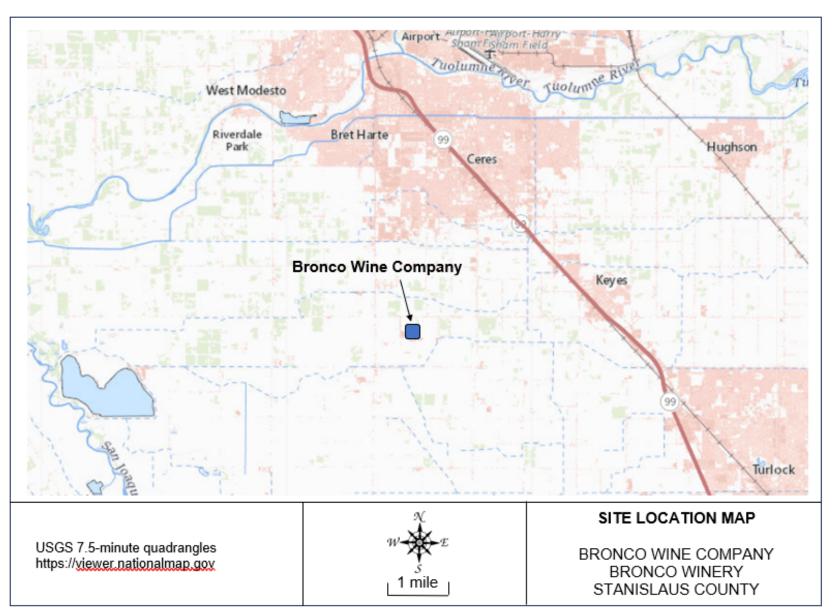
ENFORCEMENT

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 the right to take any enforcement actions authorized by law.

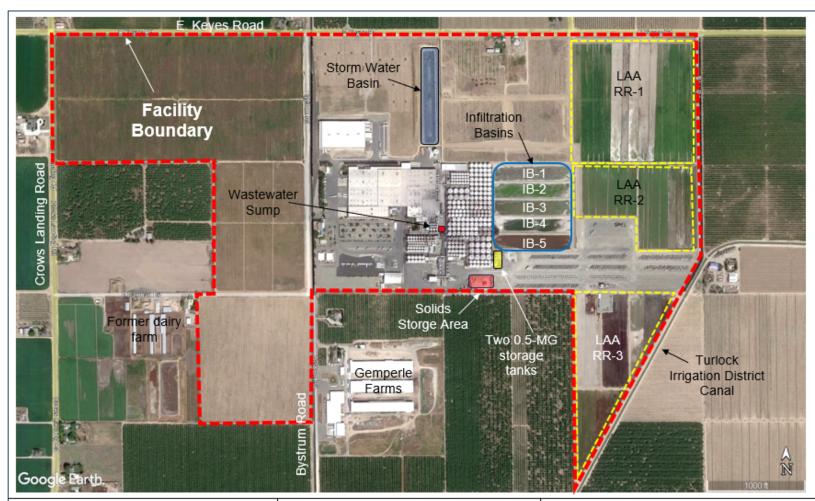
ADMINISTRATIVE REVIEW

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board for administrative review in accordance with Water Code section 13320, and California Code of Regulations, title 23, section 2050 et seq. To be timely, the State Water Board must receive the petition by 5pm on the 30th day after the date of this Order, except that if the 30th day falls on a Saturday, Sunday or State Holiday, the petition must be received by the State Water Board by 5pm on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet on the Water Boards Public Notice web page (http://www.waterboards.ca.gov/public notices/petitions/water quality).

ATTACHMENT A



ATTACHMENT B



Notes:

Facility BoundaryLand Application AreaIB = Infiltration Basin

LAA = land application area

RR = Reno Ranch MG = Million gallon

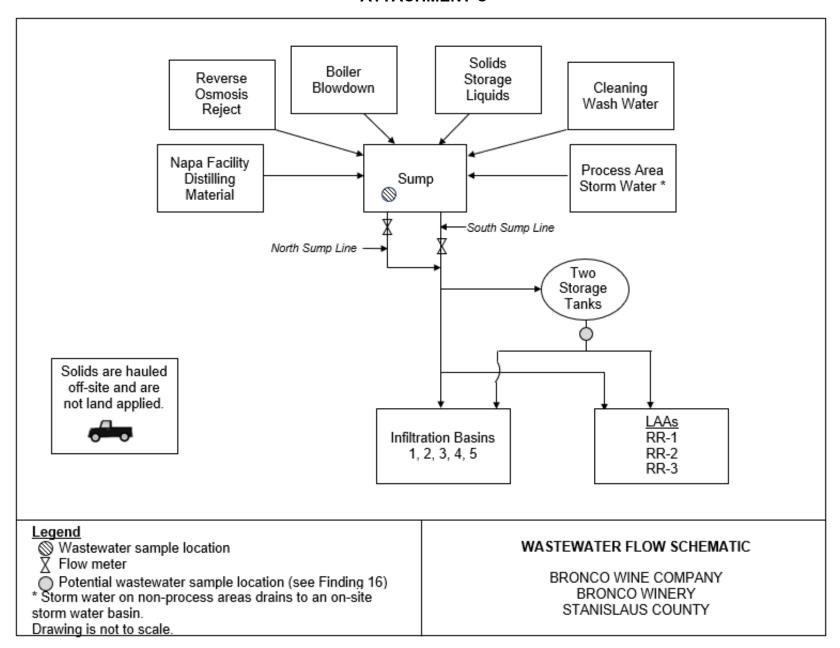


~1000 feet

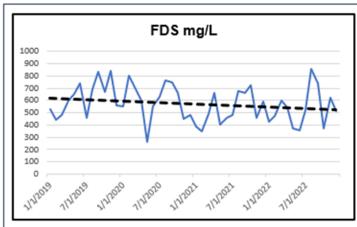
All site features are approximately located.

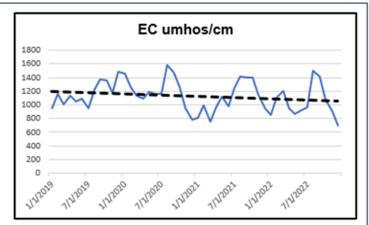
SITE FEATURES MAP

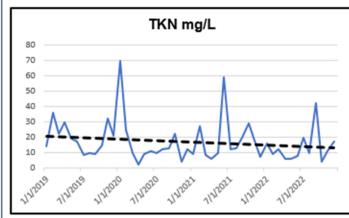
ATTACHMENT C

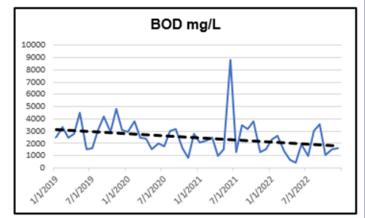


ATTACHMENT D









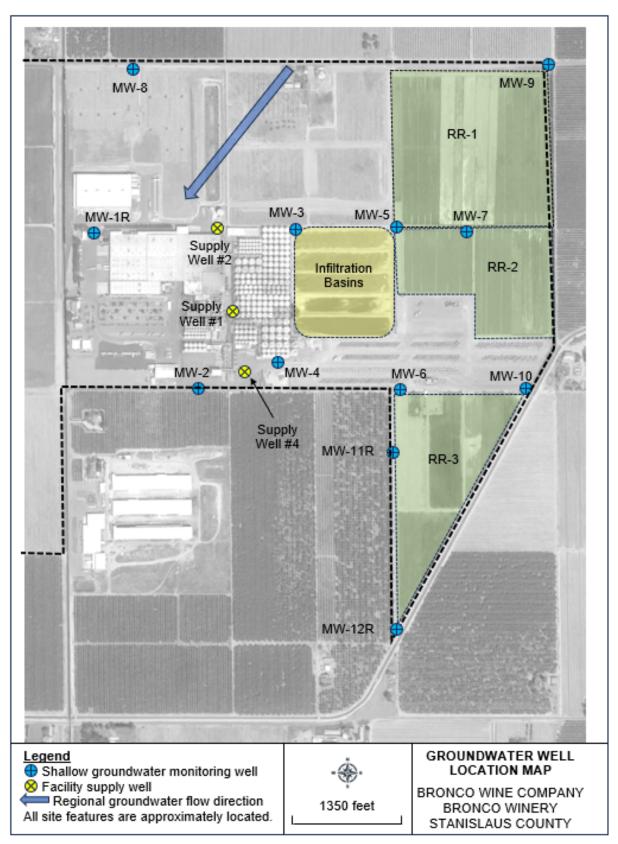
Notes:

Wastewater samples are collected from the sump and are considered representative of effluent quality discharged to land.

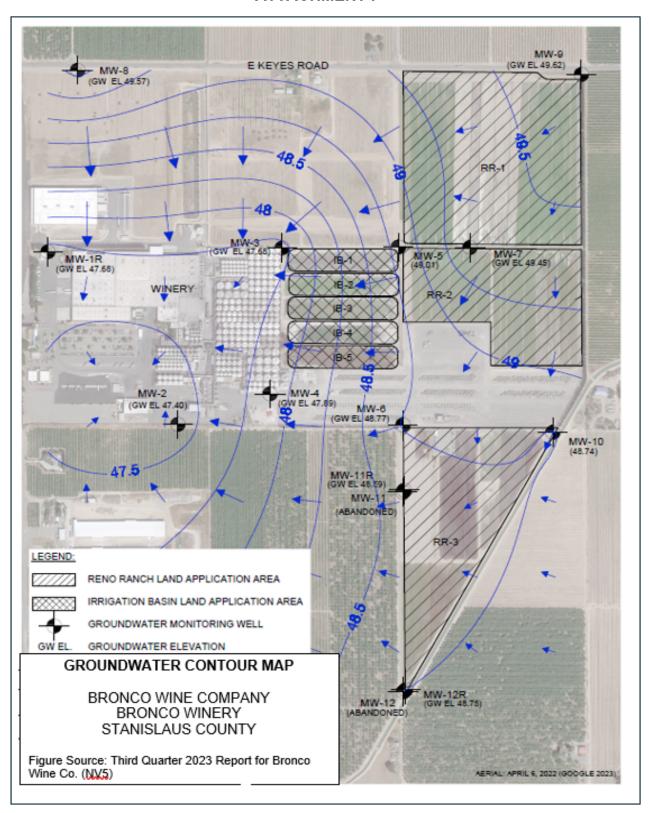
Concentration trends were generated using data collected in 2019 through 2022.

CONCENTRATION TRENDS IN EFFLUENT

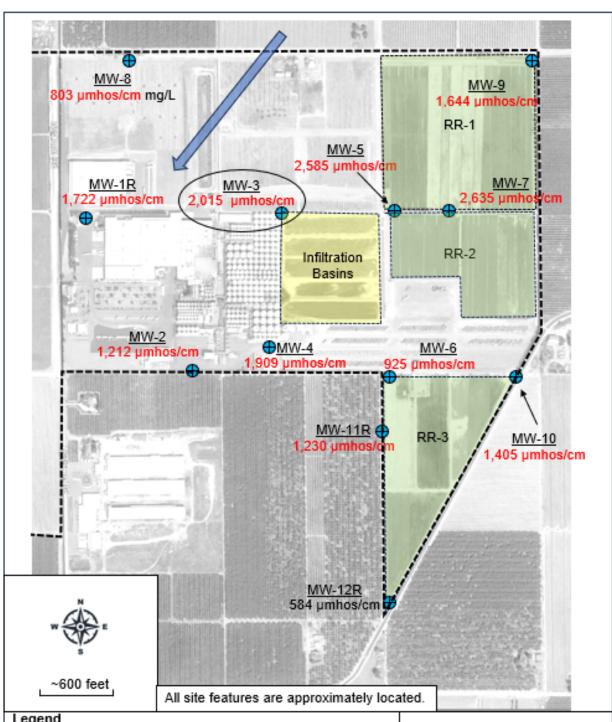
ATTACHMENT E



ATTACHMENT F



ATTACHMENT G



Legend

Groundwater monitoring well

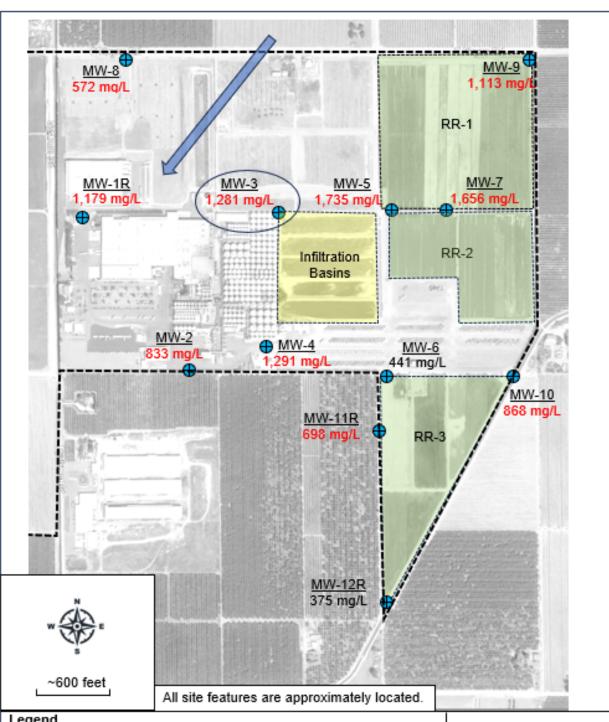
Regional groundwater flow direction (south-southwest) Notes

Average concentration for monitoring years 2019 to 2022 is presented.

Concentrations in red exceed 700 µmhos/cm. Circled well shows increasing concentration trend using the last most recent 8 data points.

ELECTRICAL CONDUCTIVITY CONCENTRATIONS IN GROUNDWATER

ATTACHMENT H



Legend

Groundwater monitoring well

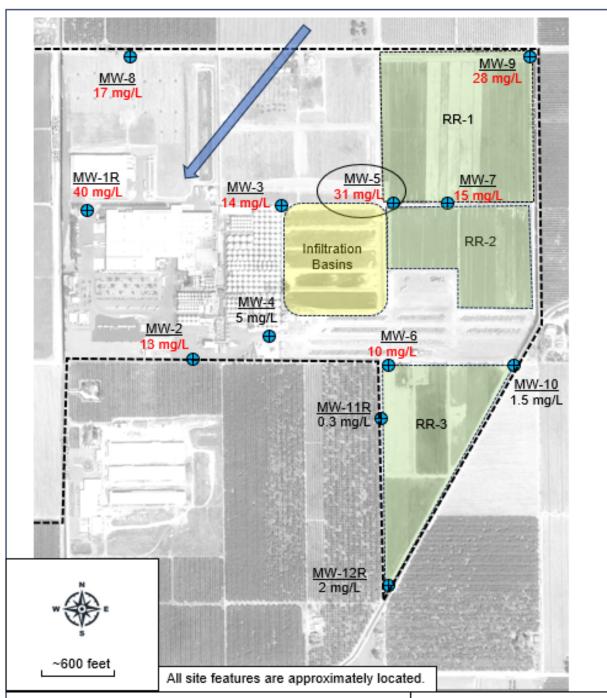
Regional groundwater flow direction (south-southwest)

<u>Notes</u>

Average concentration for monitoring years 2019 to 2022 is presented. Concentrations in red exceed 500 mg/L (secondary MCL). Circled wells show increasing concentration trends using the last 8 data points.

TDS CONCENTRATIONS IN GROUNDWATER

ATTACHMENT I



Legend

Groundwater monitoring well

Regional groundwater flow direction (south-southwest)

Notes

Average concentration for monitoring years 2019 to 2022 is presented. Concentrations in red exceed the Primary MCL of 10 mg/L. Circled wells show an increasing concentration trend using the last 8 data points.

NITRATE AS NITROGEN CONCENTRATIONS IN GROUNDWATER

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CENTRAL VALLEY REGION

WASTE DISCHARGE REQUIREMENTS ORDER R5-2024-0001
FOR
BRONCO WINE COMPANY
BRONCO WINERY
STANISLAUS COUNTY

INFORMATION SHEET

Facility and Discharge Description

Bronco Wine Company owns and operates an existing winery (Bronco Winery) that generates process wastewater that is discharged to land. The Facility is located at 6342 Bystrum Road in Ceres, California. The Facility processes between 300,000 and 450,000 tons of grapes annually and discharges wastewater year-round. Wastewater is generated from wine making activities, boiler blowdown, tank washout, reverse osmosis reject, equipment cleaning and sanitation, bottling, and storm water from processing areas. Distilling material (e.g., lees, filter wash, and other wine residues) generated at an offsite facility owned by the Discharger and located in Napa County is discharged to the treatment system. The Facility's previously permitted flow limit was 0.65 million gallons per day.

The wastewater treatment system consists of a wastewater collection sump, two 0.5-million-gallon flow equalization storage tanks, five infiltration basins, and 77 acres of LAAs. Facility wastewater is collected in a concrete sump and directed to one of two sump lines (the North Sump Line and the South Sump Line). During high flow events (e.g., high rainfall), the North Sump Line directs wastewater directly to Infiltration Basin (IB-4), which is the largest of the five basins. For normal flow volumes, the wastewater from the sump is either directed to the storage tanks or discharged directly to the infiltration basins or the LAAs. The flow equalization tanks are used intermittently, depending upon Facility operations. Wastewater from the tanks is discharged to the infiltration basins or the LAAs.

Wastewater from the Facility consists of salts, total nitrogen, and BOD₅. Wastewater samples are collected from the wastewater sump prior to discharging to land. Annual average concentrations for 2022 are summarized below and concentration trend summaries are shown on Attachment D.

Information Sheet Table 15. Wastewater Quality Summary

| | TDS | EC | Total Nitrogen | Nitrate as N | TKN | BOD5 |
|---------|------|----------|-------------------|-----------------|------|------|
| Units | mg/L | µmhos/cm | mg/L | mg/L | mg/L | mg/L |
| Results | 1387 | 1162 | 21 | 1.2 | 19 | 3067 |

There are five infiltration basins (IB-1 through IB-5) where the wastewater percolates and evaporates. The surface area of each basin is approximately 3.14 acres. IBs-1, 2, 3, and 5 are approximately 5 feet deep, including two feet of freeboard, and IB-4 is approximately 10 feet deep.

There are three LAAs at the Facility; Reno Ranch (RR)-1, RR-2, and RR-3. The LAA acreage totals 77 acres, which are flood irrigated and bermed. Crops grown on the LAAs include Sudan grass and forage crops.

Residual solids generated at the Facility are either hauled off-site on a daily basis or temporarily stored on a large concrete area where runoff drains to the collection sump. The stored solids are then hauled off-site for various uses and disposal and are not land applied.

Groundwater Considerations

The groundwater monitoring network currently consists of 12 shallow groundwater monitoring wells. Groundwater generally flows to the south-southwest, but varies widely due to pumping of agricultural wells in the area. Depths to groundwater range from 20 to 30 feet bgs.

TDS, EC, nitrate as nitrogen have been detected at concentrations greater than potential WQOs in upgradient and downgradient wells. Groundwater quality in the area, in regard to salinity and nitrate as nitrogen, is not identified as high-quality water, likely due to the long-term use of the area for agricultural purposes (including nearby dairies). MW-3 and MW-5 are the only wells with increasing constituent concentrations, as shown on Attachments G, H, and I. Discharges to land have contributed to groundwater degradation in the area.

Antidegradation

Typical constituents in winery process wastewater generally include, at a minimum, salts and total nitrogen. Effluent quality and upgradient and downgradient groundwater quality for 2022 are summarized below. NE indicates not established. Units are in mg/L unless noted otherwise.

| Constituent | Effluent (flow weighted average) | Upgradient Groundwater | Downgradient Groundwater | Potential WQOs |
|------------------|---|---------------------------|-----------------------------|-------------------|
| EC (µmhos/cm) | 1,043 | 1,177 | 1,863 | 700 |
| TDS | 766 | 755 | 1,125 | 500 |
| FDS | 562 | NA | NA | NE |
| Nitrate as N | 1.1 | 11.9 | 14 | 10 |
| TKN | 13 | 2 | 2 | NE |

The discharge of wastewater from the Facility has degraded groundwater, along with the long-term use of the area for agricultural purposes. Salinity issues will be addressed by the Salinity Control Program and nitrate as nitrogen concerns will be addressed by the Nitrate Control Program.

High BOD₅ concentrations can generate nuisance conditions such as odors. However, no odor issues have been reported at this Facility beyond property boundaries. This Order establishes a BOD₅ loading limit for the LAAs (Mass Loading Limitations E.1) and a dissolved oxygen limit for the infiltration basins in an effort to avoid odor production (Discharge Specifications F.4).

Discharge Prohibitions, Effluent Limitations, Discharge Specifications, and Provisions

The Order sets the flowing flow limits:

Information Sheet Table 17. Flow Limits

| Flow Measurement | Flow Limit |
|--|------------|
| Monthly Average Daily Flow (As determined by the total flow during the calendar month divided by the number of days in that month) | 0.65 MGD |
| Total Annual Flow (As determined by the total flow for the calendar year) | 175 MG |

Because the Discharger has enrolled in the P&O study, this Order sets a **performance-based annual flow-weighted limit of 1,000 mg/L** for FDS in order to maintain the existing discharge quality.

The existing WDRs (Order 96-247) did not require the Discharger to monitor or report BOD_5 loading rates and did not contain a BOD_5 loading limit or effluent limit. Based on

estimated calculations using available data, it appears the discharge can meet the **100 lb/ac/day/irrigation cycle** for the LAAs when using appropriate agronomic practices (i.e., even application of wastewater, sufficient drying times, etc.). To help ensure the basins do not generate odors, dissolved oxygen in the basins will be monitored and sets a limit in the infiltration basins as described in Discharge Specification F.4.

Monitoring Requirements

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

Salt and Nitrate Control Programs Regulatory Considerations

As part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative, the Central Valley Water Board adopted Basin Plan amendments (Resolution R5-2018-0034) incorporating new programs for addressing ongoing salt and nitrate accumulation in the waters and soils of the Central Valley at its 31 May 2018 Board Meeting. On 16 October 2019, the State Water Resources Control Board adopted Resolution No. 2019-0057 conditionally approving the Central Valley Water Board Basin Plan amendments and directing the Central Valley Water Board to make targeted revisions to the Basin Plan amendments within one year from the approval of the Basin Plan amendments by the Office of Administrative Law. The Office of Administrative Law (OAL) approved the Basin Plan amendments on 15 January 2020. (OAL Matter No. 2019-1203-03).

Pursuant to the Basin Plan amendments, dischargers will receive a Notice to Comply with instructions and obligations for the Salt Control Program within one year of the effective date of the amendments (17 January 2020). Upon receipt of the Notice to Comply, the Discharger will have no more than six months to inform the Central Valley Water Board of their choice between Option 1 (Conservative Option for Salt Permitting) or Option 2 (Alternative Option for Salt Permitting). The level of participation required of dischargers whose discharges do not meet stringent salinity requirements will vary based on factors such as the amount of salinity in the discharge, local conditions, and type of discharge. The Discharger (Salt ID: 1829) has chosen to pursue Option 2 (Alternative Salinity Permitting Approach).

For the Nitrate Control Program, the Discharger falls within Groundwater Basin 5-022.03 (San Joaquin Valley Turlock Sub-basin), a Priority 1 Basin. To comply with the Nitrate Control Program, the Discharger is a participant of the Valley Water Collaborative Management Zone. More information regarding the CV-SALTS regulatory

planning process can be found at the following link:
(https://www.waterboards.ca.gov/centralvalley/water issues/salinity/)

Reopener

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

Legal Effect of Rescission of Prior WDRs or Orders on Existing Violations

The Central Valley Water Board's rescission of prior waste discharge requirements and/or monitoring and reporting orders does not extinguish any violations that may have occurred during the time those waste discharge requirements or orders were in effect. The Central Valley Water Board reserves the right to take enforcement actions to address violations of prior prohibitions, limitations, specifications, requirements, or provisions of rescinded waste discharge requirements or orders as allowed by law.