

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2024-0001

FOR
BRONCO WINE COMPANY
STANISLAUS COUNTY

This Monitoring and Reporting Program (MRP) for the Bronco Wine Company (Discharger) is issued pursuant to Water Code section 13267. A glossary of terms used in this MRP is included on the last page.

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. Except as specified otherwise in this MRP, grab samples will be considered representative of water, wastewater, soil, residual solids, and groundwater.

The time, date, and location of each sample shall be recorded on the sample chain of custody form. All analyses shall be performed in accordance with the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*, 1 March 1991 ed. (Standard Provisions and Reporting Requirements [SPRRs]). Field test instruments (such as those used to measure pH, electrical conductivity, dissolved oxygen, wind speed, and precipitation) may be used provided that:

1. The operator is trained in proper use and maintenance of the instruments.
2. The instruments are field calibrated at the frequency recommended by the manufacturer.
3. The instruments are serviced and/or calibrated at the manufacturer's recommended frequency.
4. Field calibration reports are submitted as described in the "Reporting" section of the MRP.

Laboratory analytical procedures shall comply with the methods and holding times specified in the following (as applicable to the medium to be analyzed):

1. Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater (Environmental Protection Agency [EPA]);
2. Test Methods for Evaluating Solid Waste (EPA);
3. Methods for Chemical Analysis of Water and Wastes (EPA);
4. Methods for Determination of Inorganic Substances in Environmental Samples (EPA); Standard Methods for the Examination of Water and Wastewater (APHA/AWWA/WEF); and
5. Soil, Plant and Water Reference Methods for the Western Region (WREP 125).

Approved editions shall be those that are approved for use by the U.S. Environmental Protection Agency or the State Water Resources Control Board’s Environmental Laboratory Accreditation Program (ELAP). The Discharger may propose alternative methods for approval by the Executive Officer. Where technically feasible, laboratory reporting limits shall be lower than concentrations that implement applicable water quality objectives/limits for the constituents to be analyzed.

Source Water Monitoring

Samples of source water used for processing shall be collected beginning in **2025** and analyzed for the parameters listed in the table below. Data shall be reported in the corresponding annual monitoring report. Samples are only required to be sampled from the supply well(s) in use during each monitoring period.

MRP Table 1. Source Water

Constituent	Units	Sample Type	Sampling and Reporting Frequency
Electrical Conductivity (EC)	µmhos/cm	Grab	Every three years
Total Dissolved Solids (TDS)	mg/L	Grab	Every three years
Total Nitrogen	mg/L	Grab	Every three years
Nitrate as Nitrogen	mg/L	Grab	Every three years
Dissolved Iron	mg/L	Grab	Every three years
Dissolved Manganese	mg/L	Grab	Every three years
Sodium	mg/L	Grab	Every three years
Chloride	mg/L	Grab	Every three years

Effluent Flow Monitoring

The Discharger shall monitor wastewater flows from of the wastewater sump, prior to discharging to the infiltration basins or land application areas (LAAs), at the locations shown on Attachment C to Waste Discharge Requirements (WDRs) Order R5-2024-0001.

MRP Table 2. Effluent Flow Monitoring

Flow Source	Units	Sample Type	Sampling Frequency	Reporting Frequency
Flow Meter	Gallons	Meter	Daily (total daily flow)	Quarterly

Infiltration Basin Monitoring

The Discharger shall monitor the infiltration basins when water is present and contains more than one foot of wastewater in accordance with the following. Sampling and

monitoring shall be conducted from permanent locations that will provide reasonable samples and observations of the infiltration basins. Freeboard shall be measured vertically from the water surface to the lowest elevation of pond berms (or spillway/overflow pipe invert) and shall be measured to the nearest 0.10 feet. Samples shall be collected at a depth of one foot, opposite the inlet. If any infiltration basin is dry or has less than one foot of water, the monitoring report shall so state. Infiltration basin monitoring shall include, at a minimum, the following:

MRP Table 3. Infiltration Basin Monitoring

Constituent/ Parameter	Units	Sample Type	Monitoring Frequency	Reporting Frequency
Presence/Absence of Water	--	Observation	Weekly	Quarterly
Freeboard	0.1 feet	Measurement	Weekly	Quarterly
Dissolved Oxygen	mg/L	Grab/Measurement	Weekly	Quarterly
pH	--	Measurement	Weekly	Quarterly
Odors	--	Observation	Weekly	Quarterly
Berm Conditions	--	Observation	Weekly	Quarterly

Wastewater Effluent Monitoring

Wastewater samples shall be collected from the from the sump prior to discharging to the LAAs or infiltration basins, as shown on Attachment C to WDRs Order R5-2024-0001.

The Discharger may add a second sample location at the effluent from the storage tanks, as shown on Attachment C to WDRs Order R5-2024-0001. If a new sample port is installed at the effluent from the storage tanks, the effluent limits included in the Order will be applicable to this location if wastewater is discharged to land from the storage tanks. Wastewater samples collected from either the sump or tank effluent are required to meet the effluent limits, and shall be representative of wastewater quality applied to land. Provision J.1.c requires the Discharger to submit a letter to the Central Valley Water Board should this additional sampling location be installed

Sampling is only required when wastewater is discharged to the LAAs or infiltration basins. The composite sample shall be a 24-hour composite sample. At a minimum, wastewater monitoring shall include the following:

MRP Table 4. Wastewater Monitoring

Constituents	Units	Sample Type	Sample Frequency	Reporting Frequency
Electrical Conductivity	µmhos/cm	Composite	Monthly	Quarterly
Biochemical Oxygen Demand (BOD ₅)	mg/L	Composite	Monthly	Quarterly

Constituents	Units	Sample Type	Sample Frequency	Reporting Frequency
Fixed Dissolved Solid (FDS)	mg/L	Composite	Monthly	Quarterly
Total Nitrogen	mg/L	Composite	Monthly	Quarterly
Nitrate as Nitrogen	mg/L	Composite	Monthly	Quarterly
TKN	mg/L	Composite	Monthly	Quarterly
Chloride	mg/L	Composite	Monthly	Quarterly
Sodium	mg/L	Composite	Monthly	Quarterly
pH	--	Composite/Grab	Monthly	Quarterly

Supplemental Irrigation Monitoring

Water samples from the Turlock Irrigation District (TID) shall be collected every three years if irrigation water was used during that three-year time period. If analytical data are available from another source and includes the required constituents, such as data provided by TID, submittal of that data shall satisfy this requirement. Data shall be included in the corresponding Annual Monitoring Report. If sampling was not conducted because supplemental irrigation was not needed, the Annual Monitoring Report so shall state. At a minimum, the TID water shall be analyzed for:

MRP Table 5. Supplemental Irrigation Monitoring

Constituents	Units	Sample Type	Sample Frequency
Electrical Conductivity	µmhos/cm	Grab	Every three years
Fixed Dissolved Solid (FDS)	mg/L	Grab	Every three years
Total Nitrogen	mg/L	Grab	Every three years
Nitrate as Nitrogen	mg/L	Grab	Every three years
TKN	mg/L	Grab	Every three years
Chloride	mg/L	Grab	Every three years
Sodium	mg/L	Grab	Every three years

Land Application Monitoring

A. Field Inspections

The Discharger shall inspect the LAAs at least once weekly during irrigation events, and observations from those inspections shall be documented for inclusion in the quarterly monitoring reports. The following items shall be documented for field to be irrigated on that day:

1. Berm condition
2. Condition of each standpipe and flow control valve (if applicable)

3. Condition of all ditches used for the conveyance of wastewater.
4. Ponding
5. Potential and actual runoff or discharge to off-site areas, including surface water
6. Odors that have the potential to be objectionable at or beyond the property boundary.

Temperature, wind direction, and other relevant field conditions shall also be observed and recorded. The notations shall also document any corrective actions taken based on observations made. A copy of entries made in the log shall be submitted as part of the Quarterly Monitoring Report.

B. Routine Monitoring

The Discharger shall perform the following routine monitoring and loading calculations during all months when land application occurs and shall present the data in the Quarterly Monitoring Reports. If no discharges occur, the monitoring reports so shall state.

MRP Table 6. LAA Monitoring

Parameter	Units	Measurement	Measurement Frequency	Reporting Frequency
Precipitation	0.1 inch	Rain Gauge	Daily	Quarterly
Irrigation fields	--	Observation	Daily	Quarterly
Hydraulic Loading Rate	Inch	Calculated	Daily	Quarterly
BOD5 Loading Rate	lb/ac/day	Calculated	Daily	Quarterly
Total Nitrogen Loading	lb/ac/year	Calculated	Monthly	Quarterly
FDS Loading Rate	lb/ac/day	Calculated	Monthly	Quarterly

Note: Precipitation data obtained from the nearest National Weather Service rain gauge is acceptable. The wastewater hydraulic loading rate shall be calculated for each check within each LAA field. Volumes for each check can be estimated based on the duration of flow, the number of checks being irrigated at any one time, and the daily flow rates for each field. Calculations and assumptions shall be clearly documented. Loading rates shall be calculated for each LAA. BOD₅ loading shall be calculated using the daily applied volume of wastewater, actual application area, and most recent BOD₅ results for the wastewater. Total nitrogen loading rates shall be calculated using the applied volume of wastewater, actual application area, and the most recent total nitrogen results for the wastewater. Loading rates for supplemental nitrogen (including commercial fertilizers, manure from cattle, etc.) shall be calculated using the actual load and

application area. FDS loading rates shall be calculated using the daily applied volume of wastewater, actual application area, and most recent FDS results for the wastewater.

Groundwater Monitoring

The Discharger shall maintain the groundwater monitoring well network. If a groundwater monitoring well is dry for more than four consecutive sampling events or is damaged, the Discharger shall submit to the Central Valley Water Board a workplan and proposed time schedule for its replacement, and the well shall be replaced following approval of the workplan. Alternatively, the Discharger shall submit a report with evidence demonstrating a replacement well is not needed.

Prior to construction of any additional groundwater monitoring wells, the Discharger shall submit plans and specifications to the Central Valley Water Board for review and approval. Once installed, all new monitoring wells shall be appropriately incorporated into monitoring conducted under this MRP and shall be monitored on a quarterly basis.

The groundwater monitoring program applies to the groundwater monitoring wells listed in Table 7 and any wells subsequently installed under the approval of the Central Valley Water Board.

MRP Table 7. Groundwater Monitoring Wells

Well ID		
MW-1R	MW-2	MW-3
MW-4	MW-5	MW-6
MW-7	MW-8	MW-9
MW-10	MW-11R	MW-12R

Prior to sampling, depth to groundwater measurements shall be measured in each monitoring well to the nearest 0.01 feet. Groundwater elevations shall then be calculated to determine groundwater gradient and flow direction. Samples shall be collected and analyzed using standard EPA methods. Groundwater monitoring shall include, at a minimum, the parameters and constituents listed in the table below. Groundwater elevation shall be determined based on depth-to-water measurements using a surveyed measuring point elevation on the well and a surveyed reference elevation. Samples shall be filtered with a 0.45-micron filter, at the laboratory, prior to sample preservation for standard minerals and shall include, at a minimum, dissolved iron, dissolved manganese, chloride, and sodium.

Table 8. Groundwater Monitoring

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Depth to Groundwater	0.01 feet	Measurement	Quarterly	Annually

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Groundwater Elevation	feet	Calculated	Quarterly	Annually
Gradient	feet/feet	Calculated	Quarterly	Annually
Gradient Direction	degrees	Calculated	Quarterly	Annually
EC	µmhos/cm	Grab	Quarterly	Annually
TDS	mg/L	Grab	Quarterly	Annually
Total Nitrogen	mg/L	Grab	Quarterly	Annually
Nitrate Nitrogen	mg/L	Grab	Quarterly	Annually
TKN	mg/L	Grab	Quarterly	Annually
Sodium	mg/L	Grab	Quarterly	Annually
Chloride	mg/L	Grab	Quarterly	Annually
Standard Minerals (note 1)	mg/L	Grab	Annually	Annually

Table Note 1: See the Glossary for the definition of Standard Minerals.

If monitoring consistently shows no significant variation in a constituent concentration or parameter after at least eight consecutive groundwater monitoring events, including in newly installed monitoring wells, the Discharger may request this MRP be revised to reduce monitoring frequency, constituent analyses, or monitoring parameters. The proposal must include adequate technical justification for a reduction in monitoring frequency. The Discharger shall not implement any changes to this MRP unless and until the Central Valley Water Board adopts, or the Executive Officer issues, a revised MRP.

Solids Monitoring

The Discharger shall monitor volumes of residual solids generated and disposed of and reported in annual monitoring reports:

1. Volume of Solids Generated. Solids may include pomace, seeds, stems, screenings, and sump solids, or other material.
2. Volume Disposed of Off-site. Describe the disposal method (e.g. animal feed, off-site composting, landfill, etc.); the amount disposed (tons); and the name of the hauling company.

Reporting

All regulatory documents, submissions, materials, data, monitoring reports, and correspondence should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50MB should be emailed to centralvalleysacramento@waterboards.ca.gov.

Documents that are 50 MB or larger should be transferred to a CD, DVD, or flash drive and mailed to the following address:

Central Valley Regional Water Quality Control Board
ECM Mailroom
11020 Sun Center Drive, Suite 200
Rancho Cordova, California 95670

To ensure that your submittals are routed to the appropriate staff, the following information block should be included in any correspondence used to transmit documents to this office:

County: Stanislaus
Facility: Bronco Wine Company
Program: Non-15 Compliance
Order Number: R5-2024-0001
CIWQS Place ID: 210508

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, pond, etc.), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable. The results of any monitoring done more frequently than required at the locations specified in the MRP shall be reported to the Central Valley Water Board.

As required by the Business and Professions Code sections 6735, 7835, and 7835.1, all Groundwater Monitoring Reports shall be prepared under the direct supervision of a Registered Professional Engineer or Professional Geologist and signed by the registered professional.

A. Quarterly Monitoring Reports

Daily, weekly, and monthly monitoring data shall be reported in the quarterly monitoring report. Quarterly reports shall be submitted to the Central Valley Water Board on the **1st day of the third month following the quarter** (i.e. the January - March quarterly report is due by 1 June). At a minimum, the report shall include:

1. Results of Wastewater Effluent Monitoring in tabular format for each week and month during the reported quarter.
2. Results of Infiltration Basin Monitoring in tabular format for each month during the reported quarter.
3. Results of Flow Monitoring in tabular format for each month during the reported quarter, including calculated values for the total flow and average daily flow for each month and total annual flow to date.

4. Results of LAA Monitoring, including:
- Calculated hydraulic loading rate for each month during the reported quarter and cumulative annual loading.
 - Calculated **mass of FDS** applied to each LAA on a daily basis shall be calculated using the following formula:

$$M = \frac{8.345(CV)}{A}$$

Where:

- M = mass of FDS applied to an LAA in lb/ac/day
C = concentration of FDS in mg/L based on the most recent monitoring result
V = volume of wastewater applied to the LAA in millions of gallons per day
A = area of the LAA irrigated in acres
8.345 = unit conversion factor

- Calculated **irrigation cycle average BOD loading rate** for each LAA using the following formula:

$$M = \frac{8.345(CV) + M_x}{AT}$$

Where:

- M = mass of BOD applied to each LAA field in lb/ac/day/irrigation cycle
C = concentration of BOD in mg/L based on the most recent monitoring result
V = volume of wastewater applied to the LAA field in millions of gallons during the irrigation cycle
A = area of the LAA field irrigated in acres
T = Irrigation cycle length in days (from the first day water was applied to the last day of the drying time)
M_x = BOD mass from other sources (e.g., cattle manure, Settling Pond solids, and residual solids) in pounds
8.345 = unit conversion factor

- c. Calculated **nitrogen loading rate** for each LAA using the following formula:

$$M = \sum_{i=1}^{12} \frac{(8.345(C_i V_i) + M_x)}{A}$$

Where:

- M = mass of nitrogen applied to LAA in lb/ac/yr.
C_i = Monthly average concentration of total nitrogen for month *i* in mg/L.
V_i = volume of wastewater applied to the LAA during calendar month *i* in millions of gallons.
A = area of the LAA irrigated in acres.
i = the number of the month (e.g., Jan. = 1, Feb. = 2, etc.).
M_x = nitrogen mass from other sources (e.g., fertilizer, manure, and compost) in pounds per acre.
8.345 = unit conversion factor.

5. A comparison of monitoring data to the flow limitations, effluent limitations, and discharge specifications and an explanation of any violation of those requirements.
6. Calculated flow-weighted average annual FDS effluent concentration using the following formula:

$$C_a = \frac{\sum_{i=1}^{12} [(C_{Pi} \times V_{Pi})]}{\sum_{i=1}^{12} (V_{Pi})}$$

Where:

- C_a = Flow-weighted average annual FDS concentration in mg/L
i = the number of the month (e.g., January = 1, February = 2, etc.)
C_{Pi} = Monthly average process wastewater FDS concentration for calendar month *i* in mg/L
V_{Pi} = volume of process wastewater applied to Use Area during calendar month *i* in million gallons

7. A calibration log verifying calibration of all handheld monitoring instruments and devices used to comply with the prescribed monitoring program; and

8. Copies of the laboratory analytical data reports shall be maintained by the Discharger and submitted to the Central Valley Water Board.

B. Annual Monitoring Reports

An Annual Monitoring Report shall be submitted to the Central Valley Water Board by **1st day of the third month following the monitoring period** and shall include the following:

Flow Monitoring

1. Total annual flow of wastewater discharged to LAAs and determination of compliance with the annual flow limitation of the WDRs.

Solids Monitoring

1. Summary of the residual solids monitoring, including volumes of residual solids generated and disposed.

Process Supply Water Monitoring

1. Analytical data table showing historical and current results. A narrative description of changes in water quality over time, if any, and the potential impact on the wastewater quality.

Supplemental Irrigation Monitoring

1. Analytical data table showing historical and current results. A narrative description of changes in water quality over time, if any, and the potential impact on the wastewater quality.

Groundwater Monitoring

1. A narrative description of all preparatory, monitoring, sampling, handling, and analytical testing for groundwater monitoring. The narrative shall be sufficiently detailed to verify compliance with the WDRs Order R5-2024-0001, this MRP, and the SPRRs.
2. A field log for each well documenting depth to groundwater; method of purging, parameters measured before, during, and after purging; sample preparation (e.g., filtering); and sample preservation. Low or no-purge sampling methods are acceptable if described in an approved Sampling and Analysis Plan.
3. Summary data tables of historical and current water table elevations and analytical results, comparison with previous flow direction and gradient data, and discussion of seasonal trends if any.

4. A scaled map showing relevant structures and features of the facility, the locations of monitoring wells and any other sampling stations, and groundwater elevation contours referenced to an appropriate datum (e.g., NGVD).
5. An evaluation of the groundwater quality beneath the site and determination of compliance with the Groundwater Limitations per WDRs Order R5-2024-0001. Include all calculations and data input/analysis tables derived from use of statistical software, as applicable.
6. Copies of the laboratory analytical data reports shall be maintained by the Discharger and submitted to the Central Valley Water Board.

Additional Reporting

1. A discussion of compliance and the corrective action taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the WDRs.
2. Monitoring equipment maintenance and calibration records, as described in Section C.4 of the SPRRs, shall be maintained by the Discharger and provided upon request by the Central Valley Water Board.
3. A discussion of the following:
 - a. Waste constituent reduction efforts implemented in accordance with any required workplan;
 - b. Other treatment or control measures implemented during the calendar year either voluntarily or pursuant to the WDRs, this MRP, or any other Order; and
 - c. Based on monitoring data, an evaluation of the effectiveness of the treatment or control measures implemented to date.
4. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring network or reporting program.

A letter transmitting the self-monitoring reports shall accompany each report. The letter shall include a discussion of requirement violations found during the reporting period, and actions taken or planned for correcting noted violations, such as operation or facility modifications. If the submitting Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain the penalty of perjury statement by the submitting Discharger, or its authorized agent, as described in Section B.3 of the SPRRs (General Reporting Requirements).

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 \$1,000 per violation, per day, depending on the violation, pursuant to Water Code section 13268. 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) (http://www.waterboards.ca.gov/public_notices/petitions/water_quality).

I, PATRICK PULUPA, Executive Officer, do hereby certify the forgoing is a full, true and correct copy of the Monitoring and Reporting Program R5-2024-0001 issued by the California Regional Water Quality Control Board, Central Valley Region, on 16 February 2024.

PATRICK PULUPA, Executive Officer

GLOSSARY

BOD ₅	Five-day biochemical oxygen demand
EC	Electrical conductivity at 25° C
EPA	Environmental Protection Agency
FDS	Fixed dissolved solids
gpd	Gallons per day
LAA	Land application area
mgd	Million gallons per day
MRP	Monitoring and Reporting Program
SPRRs	Standard Provisions and Reporting Requirements
TKN	Total Kjeldahl nitrogen
TDS	Total dissolved solids
WDRs	Waste Discharge Requirements
µg/L	Micrograms per liter
µmhos/cm	Micromhos per centimeter
Daily	Every day except weekends or holidays
Weekly	Once per week
Monthly	Once per calendar month
Quarterly	Once per calendar quarter
Semi-annually	Once every six calendar months (i.e., two times per year) during non-consecutive quarters
Annually	Once per year
Standard Minerals	Analysis shall include: boron, calcium, iron, magnesium, manganese, sulfate, potassium, total alkalinity (including alkalinity series), hardness, and verification that the analysis is complete (i.e., cation/anion balance). Samples shall be filtered with a 0.45-micron filter, at the laboratory, prior to sample preservation.