

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TENTATIVE MONITORING AND REPORTING PROGRAM R5-20XX-00XX
FOR
BOGLE VINEYARDS INC AND BOGLE FAMILY LIMITED PARTNERSHIP
BOGLE DELTA WINERY
YOLO COUNTY

This Monitoring and Reporting Program (MRP) for Bogle Vineyards Inc. and Bogle Family Limited Partnership (hereafter collectively referred to as Discharger) is issued pursuant to Wat. Code section 13267. This MRP establishes monitoring and reporting requirements related to the waste discharges regulated under Waste Discharge Requirements Order R5-20XX-XXXX (WDRs Order). Each of the Findings set forth in the WDRs Order, including those pertaining to the need for submission of reports, are hereby incorporated as part of this MRP.

Bogle Vineyards Inc. owns and operates the Bogle Delta Winery and waste discharges occur on land owned by Bogle Family Limited Partnership. The wastewater treatment facility at Bogle Delta Winery is subject to WDRs Order R5-20XX-XXXX. The Discharger shall not implement any changes to this MRP unless and until the Central Valley Regional Water Quality Control Board (Central Valley Water Board) adopts, or the Executive Officer issues, a revised MRP.

A glossary of terms used in this MRP is included on the last page.

This MRP may be separately revised by the Executive Officer, in accordance with their delegated authority under Wat. Code section 13223.

I. GENERAL MONITORING REQUIREMENTS

A. FLOW MONITORING

Hydraulic flow rates shall be measured at the monitoring points specified in this MRP. The Central Valley Water Board Executive Officer shall approve any proposed changes to flow monitoring locations prior to implementation of the change. All flow monitoring systems shall be appropriate for the conveyance system (i.e., open channel flow or pressure pipeline) and liquid type. Unless otherwise specified, each flow meter shall be equipped with a flow totalizer to allow reporting of cumulative volume as well as instantaneous flow rate. Flow meters shall be calibrated at the frequency recommended by the manufacturer; typically, at least once per year and records of calibration shall be maintained for review upon request.

B. MONITORING AND SAMPLING LOCATIONS

Samples and measurements shall be obtained at the monitoring points specified in this MRP. The Central Valley Water Board staff shall approve any proposed

changes to sampling locations prior to implementation of the change. The Discharger shall monitor the following locations to demonstrate compliance with the requirements of this MRP as shown in the table below.

Table 1 – Monitoring Location Designations

Monitoring Location	Monitoring Location Description
PW-001	Location where off-site winery process wastewater from Old River Vineyard Facility and Vineyard Main Facility can be measured prior to discharge to Pump Station PS-4.
RW-001	Location where recycled water (disinfected secondary-2.2 treated wastewater) can be measured down gradient of the disinfection system. (system performance)
RW-002	Location where recycled water (disinfected secondary-2.2 treated wastewater) can be measured down gradient of the Post-Disinfection Holding Tank prior to discharge to the Wastewater Treatment Ponds. (compliance point for total coliform and domestic flow)
INF-001	Location where commingled wastewater (recycled water and winery process wastewater) flow can be measured prior to discharge to Pond 1.
EFF-001	Location where effluent (recycled water and process wastewater) can be measured prior to discharge to the land application areas.
POND 1, POND 2, and POND 3	Wastewater Treatment Ponds
MW-1, MW-2, MW-3, MW-4, and MW-5	Groundwater monitoring wells used to evaluate groundwater quality underlying the treatment and disposal ponds.
WS-1, WS-2	Water supply wells.
SUP-001	Reclamation District 999 supplemental water.
BIO-001	Sludge/biosolids removed from the treatment ponds.

C. SAMPLING AND SAMPLE ANALYSIS

All samples and measurements 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 supply water, wastewater, soil, solids/sludges, and groundwater. The time, date, and location of each sample shall be recorded on the sample chain of custody form.

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; and
4. Field calibration reports are submitted as described in the "Reporting" section of the MRP.

All analyses shall be performed in accordance with the Standard Provisions and Reporting Requirements for Waste Discharge Requirements, 1 March 1991 ed. ([1 March 1991 SPRRs](#)).

[https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/std_provisions/wdr-mar1991.pdf]

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

- Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater (EPA);
- Test Methods for Evaluating Solid Waste (EPA);
- Methods for Chemical Analysis of Water and Wastes (EPA);
- Methods for Determination of Inorganic Substances in Environmental Samples (EPA);
- Standard Methods for the Examination of Water and Wastewater (APHA/AWWA/WEF); and
- 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 (EPA) 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.

II. SPECIFIC MONITORING REQUIREMENTS

A. OFFSITE WINERY PROCESS WASTEWATER FLOW (PW-001)

1. Offsite winery wastewater flow shall be monitored and reported for the parameters listed below. Flow measurement may be estimated based on truck load volumes.

Table 2 – Offsite Winery Process Wastewater Monitoring

Parameter	Units	Sample Type	Monitoring Frequency	Reporting Frequency
Flow	gpd	Calculated	Daily	Quarterly
Annual flow	MG	Calculated	Calculated	Annual

B. RECYCLED WATER MONITORING (RW-001, RW-002)

1. Recycled water (RW-001) shall be monitored and representative of the water quality downstream of the disinfection system and upstream of the post-disinfection holding tank. At a minimum, samples shall be monitored as specified in the table below.

Table 3 – Recycled Water (RW-001) Monitoring

Parameter	Units	Sample Type	Monitoring Frequency	Reporting Frequency
Total Coliform Bacteria	MPN/100 mL	Grab	Daily/Weekly (see Note 1 below)	Quarterly

Table Note 1. Sampling for total coliform bacteria shall be daily on the days that disinfected secondary water is discharged to the pond system. If no discharge is planned, sampling shall be once per week.

2. Recycled water (RW-002) shall be monitored and representative of the water quality downstream of the post-disinfection holding tank prior to discharge to the wastewater ponds.

Table 4 – Recycled Water (RW-002) Monitoring

Parameter	Units	Sample Type	Monitoring Frequency	Reporting Frequency
Flow	gpd	Continuous	Daily	Quarterly
Annual flow	gallons	Continuous	Totalizer	Annual
BOD ₅	mg/L	Grab	1/Month	Quarterly
TSS	mg/L	Grab	1/Month	Quarterly
Total Nitrogen	mg/L	Grab	1/Month	Quarterly
Total Coliform Bacteria	MPN/100 mL	Grab	Daily/Weekly (see Note 1 below)	Quarterly

Table Note 1. Sampling for total coliform bacteria shall be daily on the days that disinfected secondary water is discharged to the pond system. If no discharge is planned, sampling shall be once per week.

C. COMMINGLED WASTEWATER FLOW MONITORING (INF-001)

1. Commingled wastewater consists of recycled water and winery process wastewater. Commingled wastewater flow shall be representative of discharges to Pond 1. Monitoring parameters and reporting frequencies are listed in the table below. Continuous monitoring requires daily meter reading or automated data collection using a meter equipped with a totalizer. Total flow means the cumulative total for the calendar year (1 January through 31 December).

Table 5 – Wastewater Flow Monitoring

Parameter	Units	Sample Type	Monitoring Frequency	Reporting Frequency
Flow	gpd	Continuous	Daily	Quarterly
Annual flow	MG	Continuous	Totalizer	Annual

D. EFFLUENT MONITORING (EFF-001)

1. Effluent consists of recycled water and winery wastewater collected from Pond 3, on days when commingled effluent is discharged to the land application areas. Monitoring parameters are listed in the table below. Sample shall be representative of the volume and waste quality prior to discharge to the land application areas.

- a. Flow monitoring of the outflow from Pond 3 shall be reported in the Land Application Area Monitoring section of this MRP.
- b. For constituents with Secondary MCLs listed in California Code of Regulations Title 22 Table 64449-A (e.g., iron, and manganese), samples shall be filtered with a 1.5- micron filter prior to preservation, digestion, and analysis. For all other constituents, samples shall be filtered with a 0.45-micron filter prior to preservation, digestion, and analysis.

Table 6 - Effluent Monitoring

Constituent/Parameter	Units	Sample Type	Monitoring Frequency	Reporting Frequency
Flow	mgd	Meter	Continuous	Quarterly
BOD ₅	mg/L	Grab	1/Month	Quarterly
Nitrate as Nitrogen	mg/L	Grab	1/Month	Quarterly
TKN	mg/L	Grab	1/Month	Quarterly
Total Nitrogen	mg/L	Grab	1/Month	Quarterly
EC	µmhos/cm	Grab	1/Month	Quarterly
TDS	mg/L	Grab	1/Month	Quarterly
FDS	mg/L	Grab	1/Month	Quarterly
Boron, dissolved	mg/L	Grab	1/Quarter	Quarterly
Iron, dissolved	mg/L	Grab	1/Quarter	Quarterly
Manganese, dissolved	mg/L	Grab	1/Quarter	Quarterly

2. Sampling and monitoring shall be conducted from permanent locations that will provide reasonable samples representative of wastewater quality in the ponds and observations of the ponds.
3. Effluent sampling is only required when wastewater is present in the pond and a discharge to the land application occurs. If no discharges occur or the pond is empty, the monitoring report shall so state.

E. POND MONITORING (POND 1, POND 2, POND 3)

1. All ponds used for treatment, storage, or disposal of wastewater shall be monitored for the parameters listed in the table below and meet the following conditions below.

- a. Precipitation data obtained from the nearest National Weather Service rain gauge is acceptable.
- b. 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 pond is dry, the monitoring report shall so state.
- c. Containment levees shall be observed for signs of seepage or surfacing water along the exterior toe of the levees.
- d. Liner condition shall be inspected at least annually for evidence of leaks or tears. If evidence of leaks or tears is observed, a plan shall be submitted to the Central Valley Water Board to drain and repair the liner.
- e. Dissolved oxygen (DO) shall be collected at a depth of one foot, opposite the inlet. If offensive odors are detected by or brought to the attention of the Discharger, the Discharger shall monitor the potential source pond(s) at least daily for DO and pH until the DO in the pond is greater than 1.0 mg/L.

Table 7 - Pond Monitoring

Constituent/ Parameter	Units	Sample Type	Monitoring Frequency	Reporting Frequency
Local Rainfall	inches	Rain gauge	Daily	Quarterly
Freeboard	0.1 feet	Measurement	1/Week	Quarterly
Odors	--	Observation	1/Week	Quarterly
Berm Condition	--	Observation	1/Week	Quarterly
Liner Condition	--	Observation	1/Year	Annually
Sludge Depth	inches	Measurement	1/Year	Annually
DO	mg/L	Grab	1/Month	Quarterly
pH	Std units	Grab	1/Month	Quarterly

2. Sampling and monitoring shall be conducted from permanent locations that will provide reasonable samples representative of wastewater quality in the ponds and observations of the ponds.

3. Effluent sampling is only required when wastewater is present in the ponds. If no discharges occur or the pond is empty, the monitoring report shall so state.

F. LAND APPLICATION AREA MONITORING

1. The Discharger shall monitor effluent discharged to the land application areas. Monitoring shall be conducted daily during operation and the results shall be included in the quarterly monitoring report. Evidence of erosion, field saturation, runoff, or the presence of nuisance conditions shall be noted in the report. Loading rates for the land application areas shall be calculated as specified in the Effluent Limitations of the WDRs. Samples only need be collected when wastewater is land discharged. If discharge does not occur during a reporting period, the monitoring report shall so state. Monitoring of the land application areas shall include the parameters listing in the table below and meet the following conditions below:
 - a. Continuous monitoring requires daily meter reading or automated data collection and shall define the volume of wastewater discharged to the land application areas from wastewater treatment Pond 3.
 - b. Total nitrogen applied from all sources, including fertilizers and supplemental irrigation water if used.
 - c. Total nitrogen and FDS loading rates shall be reported as a monthly total and cumulative annual to date.

Table 8 - Land Application Area Monitoring

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Effluent Flow	gpd	Continuous	Daily	Quarterly
Effluent Application Rate	in/day	Calculated	Daily	Quarterly
Supplemental Irrigation Water Flow	gpd	Continuous	Daily	Quarterly
Supplemental Irrigation Application Rate	in/day	Calculated	Daily	Quarterly
Local Rainfall	inches	Rain gauge	Daily	Quarterly
Acreage Applied	acres	Calculated	Daily	Quarterly
BOD Loading:				
Day of application	lb/ac/day	Calculated	Daily	Quarterly

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Cycle Average BOD	lb/ac/day	Calculated	Daily	Quarterly
Nitrogen Loading:				
From Effluent	lb/ac/month	Calculated	1/Month	Quarterly
From Fertilizers and Sludge/Solids	lb/ac/month	Calculated	1/Month	Quarterly
From Supplemental Irrigation	lb/ac/month	Calculated	1/Month	Quarterly
FDS Loading Rate:				
From Effluent	lb/ac/month	Calculated	1/Month	Quarterly
From Supplemental Irrigation	lb/ac/month	Calculated	1/Month	Quarterly

2. At least once per week when treated wastewater is being applied to the land application areas, the entire application area shall be inspected and observations from those inspections shall be documented for inclusion in the monthly monitoring reports. If no irrigation with wastewater takes place during a given month, then the quarterly monitoring report shall so state and the monitoring below is not necessary. The following items shall be documented for each check or field to be irrigated:
 - a. Evidence of erosion;
 - b. Containment berm condition;
 - c. Soil saturation;
 - d. Ponding;
 - e. Private irrigation canals that collect potential runoff from the land application areas and potential runoff to off-site areas;
 - f. Potential and actual discharge to surface waters; and
 - g. Odors that have the potential to be objectionable at or beyond the property boundary.

G. WINERY PROCESS SOLIDS MONITORING

1. The Discharger shall monitor monthly the generation rate, application, and storage of any process residual solids (grape pomace [skin, pulp, seeds,

and stems] and/or diamoaceous earth) and report on an annual basis. The following items shall be reported:

- a. Amount of solids generated;
- b. Amount of solids stored (including location of storage and measures implemented to prevent leachate generation or control and disposal of any leachate that is generated);
- c. Amount applied on-site as a soil amendment, area used and thickness of the application; and
- d. If applicable, amount applied off-site at an appropriate permitted facility (including amount disposed off-site, location of disposal site, and hauler identification).

H. POND SLUDGE/BIOSOLIDS MONITORING

1. For the purpose of this MRP, “generated” means produced as a separate waste stream by sludge wasting or pond cleanout. It does not apply to sludge that accumulated in treatment or storage ponds until the sludge is removed for treatment or disposal.
2. If sludge is removed from the ponds, pond sludge monitoring shall be conducted in accordance with Title 40 of the Code of Federal Regulations (40 CFR), Part 503.8(b)(4) for disposal or treated for beneficial reuse as biosolids.

At a minimum, sludge samples shall be analyzed to determine the total concentration in mg/Kg for arsenic, lead, nickel, cadmium, mercury, selenium, copper, molybdenum, zinc, total nitrogen, and total solids and submitted in the annual report. If no sludge is removed, the annual report shall so state.

3. Sludge and/or biosolids monitoring records shall be retained for a minimum of five years in accordance with 40 CFR, Part 503.17. A log shall be kept of sludge quantities generated and of handling and disposal activities (e.g. landfill, etc). The frequency of entries is discretionary; however, the log should be complete enough to serve as a basis to report sludge monitoring as well as records of offsite disposal (quantity, date, disposal site).

I. GROUNDWATER MONITORING

1. The Discharger shall maintain the groundwater monitoring well network. If a groundwater monitoring well is dry or has insufficient water for sampling

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 supporting evidence that a replacement well is not needed.

2. 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.
3. The groundwater monitoring program applies to groundwater monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and any wells subsequently installed under approval of the Central Valley Water Board.
4. Prior to sampling, depth to groundwater measurements shall be measured in each monitoring well to the nearest 0.01 feet.
5. Groundwater elevations shall then be calculated to determine groundwater gradient and flow direction. 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.
6. Sampling activities shall be conducted in accordance with an approved Sampling and Analysis Plan. Samples shall be collected and analyzed using standard EPA methods.
7. For constituents with Secondary MCLs listed in California Code of Regulations Title 22 Table 64449-A (e.g., iron, and manganese), samples shall be filtered with a 1.5- micron filter prior to preservation, digestion, and analysis. For all other constituents, samples shall be filtered with a 0.45-micron filter prior to preservation, digestion, and analysis. The semi-annual monitoring period is from January through June and July through December and shall be reported in the second and fourth monitoring reports, respectively.

Table 9 – Groundwater Monitoring

Constituent/ Parameter	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Depth to Groundwater	0.01 feet	Measurement	1/Quarter	Semi-Annual (see Note 1 below)

Constituent/ Parameter	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Groundwater Elevation	feet	Calculated	1/Quarter	Semi-Annual (see Note 1 below)
Gradient	feet/feet	Calculated	1/Quarter	Semi-Annual (see Note 1 below)
Gradient Direction	degrees	Calculated	1/Quarter	Semi-Annual (see Note 1 below)
EC	µmhos/cm	Grab	1/Quarter	Semi-Annual (see Note 1 below)
TDS	mg/L	Grab	1/Quarter	Semi-Annual (see Note 1 below)
Nitrate as N	mg/L	Grab	1/Quarter	Semi-Annual (see Note 1 below)
TKN	mg/L	Grab	1/Quarter	Semi-Annual (see Note 1 below)
Boron, dissolved	mg/L	Grab	1/Quarter	Semi-Annual (see Note 1 below)
Iron, dissolved	mg/L	Grab	1/Quarter	Semi-Annual (see Note 1 below)
Manganese, dissolved	mg/L	Grab	1/Quarter	Semi-Annual (see Note 1 below)
Total Coliform Organisms	MPN/100 mL	Grab	1/Quarter	Semi-Annual (see Note 1 below)

Table Note 1. Semi-annual reporting shall be submitted as part of the second and fourth quarter reporting.

8. If monitoring consistently shows no significant variation in a constituent concentration or parameter after at least eight consecutive groundwater

monitoring events, 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.

9. If total coliform is detected during a sampling period, the Discharger shall disinfect the well in accordance with their *Groundwater Monitoring Well Disinfection Workplan* during the next sampling period.

J. SOURCE WATER MONITORING

1. Samples of source water shall be collected from each source of water used for processing. At a minimum, the Discharger shall sample the source water prior to the start of the processing season and analyze the samples for the parameters listed in the table below. Data shall be reported in the corresponding Annual Monitoring Report.

Table 10 - Source Water Monitoring

Constituent	Units	Sample Type	Sampling Frequency	Reporting Frequency
EC	µmhos/cm	Grab	1/Year	Annually (see Note 1 below)
TDS	mg/L	Grab	1/Year	Annually (see Note 1 below)
Nitrate as N	mg/L	Grab	1/Year	Annually (see Note 1 below)
Boron, dissolved	mg/L	Grab	1/Year	Annually (see Note 1 below)
Iron, dissolved	mg/L	Grab	1/Year	Annually (see Note 1 below)
Manganese, dissolved	mg/L	Grab	1/Year	Annually (see Note 1 below)

Table Note 1. Starting in 2028, samples shall be collected once every 3 years.

K. SUPPLEMENTAL IRRIGATION MONITORING

1. Samples of supplemental irrigation water shall be collected and analyzed for the following parameters listed in the table below. At a minimum, the Discharger shall sample the supplemental irrigation water at least once during the processing season (between the months of June through

September). Data shall be reported in the corresponding Annual Monitoring Report.

Table 11 – Supplemental Irrigation Monitoring

Constituent	Units	Sample Type	Sampling Frequency	Reporting Frequency
EC	µmhos/cm	Grab	1/Year	Annually
TDS	mg/L	Grab	1/Year	Annually
TKN	mg/L	Grab	1/Year	Annually
Ammonia as N	mg/L	Grab	1/Year	Annually
Nitrate + Nitrite as N	mg/L	Grab	1/Year	Annually
Total Nitrogen	mg/L	Calculated	1/Year	Annually
Boron, dissolved	mg/L	Grab	1/Year	Annually
Iron, dissolved	mg/L	Grab	1/Year	Annually
Manganese, dissolved	mg/L	Grab	1/Year	Annually

L. POND LINER LEAK TESTING

1. The Discharger shall test the wastewater treatment pond lining system for leaks every 5 years and shall submit the results of leak testing in the Annual Monitoring Report for the year during which testing was performed. The report shall identify all leaks, and if appropriate, shall provide a plan and schedule for leak repair.
 - a. If a performance evaluation was conducted during the reporting year, a description of the pond liner integrity and leak detection tests and results, and a discussion of the pond liner performance shall be provided.
 - b. In lieu of conducting a pond performance test, the performance test requirements may be satisfied using groundwater monitoring data from an onsite, active groundwater monitoring well network designed for the pond to demonstrate that the pond has not caused significant groundwater degradation.
2. The next liner testing is due in the year 2029 and shall be reported in the 2029 Annual Monitoring Report.

III. REPORTING REQUIREMENTS

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:

Facility: Bogle Delta Winery, Yolo County
Program: Non-15 Compliance
Order Number: R5-20XX-00XX
CIWQS Place ID: 767906

A transmittal letter shall accompany each monitoring report. The letter shall include a discussion of all violations of the WDRs and this MRP during the reporting period and actions taken or planned for correcting each violation. If the Discharger has previously submitted a report describing corrective actions taken and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain the following penalty of perjury and shall be signed by the Discharger or the Discharger's authorized agent.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

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.

Laboratory analysis reports shall be included in the monitoring reports. All laboratory reports must be retained for a minimum of three years in accordance with Section C.3 of the 1 March 1991 SPRRs. For a Discharger conducting any of its own analyses, reports must also be signed and certified by the chief of the laboratory.

In addition to the requirements of Section C.3 of the 1 March 1991 SPRRs, monitoring information shall include the method detection limit (MDL) and the Reporting limit (RL) or practical quantitation limit (PQL). If the regulatory limit for a given constituent is less than the RL (or PQL), then any analytical results for that constituent that are below the RL (or PQL) but above the MDL shall be reported and flagged as estimated.

All monitoring reports that involve planning, investigation, evaluation or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared under the direction of persons registered to practice in California pursuant to California Business and Professions Code Business and Professions Code sections 6735, 7835, and 7835.1.

A. MONITORING REPORT DUE DATES

Monitoring reports are due as described in the table below.

Table 12 - Monitoring Report Due Dates

Monitoring Report	Monitoring Period	Report Due Date
First Quarter	1 January to 31 March	1 May
Second Quarter	1 April to 30 June	1 August
Third Quarter	1 July to 30 September	1 November
Fourth Quarter	1 October to 31 December	1 February
Annual Report	1 January to 31 December	1 February

B. QUARTERLY MONITORING REPORTS

Daily, weekly, monthly, and quarterly monitoring data shall be reported in the quarterly monitoring report. At a minimum, the quarterly report shall include:

1. Results of the Offsite Winery Process Wastewater Flow Monitoring (PW-001) in tabular format for each month during the reported quarter.

- a. Calculation of the average daily flow for each month and total monthly flow, and cumulative flow to date.
2. Results of the Recycled Water Monitoring (RW-001 and RW-002) in tabular format for each month during the reported quarter.
 - a. Total coliform monitoring (RW-001)
 - b. Calculation of the average daily flow for each month and total monthly flow, and cumulative flow to date (RW-002).
 - c. Monitoring parameters (RW-002) in accordance with Table 4.
3. Results of the Commingled Wastewater Flow Monitoring (INF-001) in tabular format for each month during the reported quarter including:
 - a. Calculation of the average daily flow for each month and total monthly flow, and cumulative flow to date.
4. Results of the Effluent Monitoring (EFF-001) in tabular format for each month during the reported quarter including:
 - a. Calculation of the average daily flow for each month, total monthly flow, and cumulative flow to date.
 - b. Monitoring parameters in accordance with Table 6.
5. Results of Pond Monitoring (POND 1, POND 2, POND 3) in tabular format for each month during the reported quarter, including:
 - a. Precipitation data.
 - b. Weekly freeboard measurements, odor observations, and berm condition observations.
 - c. Monthly DO and pH monitoring.
6. Results of the Land Application Area Monitoring, including:
 - a. A site map of the LAA's showing predominant features, and LAAs acreage where wastewater was applied.
 - b. Monitoring parameters in accordance with Table 8.
 - c. Monthly volumes of effluent and supplemental water applied to the LAAs.

- d. A summary of the LAA's inspection activities.
- e. Cycle average BOD₅ loading rate applied to the LAAs. Include the number of days in each irrigation cycle.

The mass of BOD₅ applied to the irrigation area within the LAA as a cycle average shall be calculated using the following formula:

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

Where:

- M = Mass of BOD₅ for a given field in pounds per acre per day (lb/ac/day).
- C = Concentration of BOD₅ in mg/L based on the average concentration for the month.
- V = Total volume of wastewater applied to the LAAs during the irrigation cycle, in millions of gallons (MG).
- A = Area of the LAA's irrigated with wastewater in acres (ac).
- T = Irrigation cycle length in days (from the first day wastewater was applied to the last day of the drying time)
- 8.345 = Unit conversion factor for mg/L and MG to lbs.

- f. Total nitrogen and FDS rate applied to the LAAs as calculated from the sum of the monthly loading.

The total mass loading for total nitrogen and FDS applied to the irrigation area of the LAAs shall be calculated using the following formula:

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

Where:

- M = Mass of total nitrogen or FDS applied to the LAA in lb/acre/year.
- C_1 = Concentration of total nitrogen or FDS for the month i in mg/L.
- V_i = Volume of wastewater applied to the LAA's during the calendar month i in MG.
- A = Area of the LAA's irrigated with wastewater in acres
- i = The number of the month (e.g., January = 1, February = 2, etc.)
- M_x = Nitrogen and FDS from other sources (e.g., fertilizer and compost) in lbs.
- 8.345 = Unit conversion factor for mg/L and MG to lbs.

- g. Type of crop(s) grown, planting and harvest dates, and the quantified nitrogen and FDS uptakes (as estimated by technical references or defined by representative plant tissue analysis).

7. Results of the Groundwater Monitoring:

- a. A narrative description of all preparatory, monitoring, sampling, handling, and analytical testing for groundwater monitoring.
- b. 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.
- c. Data in tabular format during the reported quarter.
- d. Calculation of groundwater elevations, an assessment of groundwater flow direction and gradient on the date of measurement, comparison of previous flow direction and gradient data, and discussion of seasonal trends if any.
- e. A narrative discussion of the analytical results for all groundwater locations monitored including spatial and temporal trends, with reference to summary data tables, graphs, and appended analytical reports (as applicable).
- f. 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).

8. A summary of any changes in processing that might affect waste characterization and/or discharge flow rates.
9. Copies of the laboratory analytical data reports.

C. FOURTH QUARTER MONITORING REPORT

In addition to the above information, the fourth quarter monitoring report shall include the following semi-annual and annual reporting:

1. Offsite Winery Wastewater Flow Monitoring
 - a. Total annual flow.
2. Recycled Water Monitoring
 - a. Total annual flow discharged to the treatment ponds and determination of compliance with the annual flow limitation in the WDRs.
3. Commingled Wastewater Flow Monitoring
 - a. Total annual flow discharged to the treatment ponds and determination of compliance with the annual flow limitation in the WDRs.
4. Effluent Monitoring
 - a. Evaluation of the Facility's flow-weighted annual average FDS to the Salinity Action Level specified in the WDRs.
5. Pond Monitoring
 - a. Liner condition.
 - b. Sludge depth.
6. Winery Process Solids Monitoring
 - a. Summary of the generation rate, application, and storage of any residual solids for each month of the calendar year.
7. Pond Sludge/Biosolids Monitoring

- a. Sludge/solids analysis when pond sludge is removed for treatment or disposal.
 - b. A log of sludge/solids quantities generated and of handling, application, and disposal activities (e.g. land application, landfill, etc).
 - c. Progress report on sludge accumulation in the ponds. Provide a discussion on procedural operations to maintain adequate storage capacity. If estimated volume of sludge in the ponds exceeds the approved percentage of permitted capacity, provide a time schedule to complete sludge cleanout.
8. Groundwater Monitoring
- a. 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.
 - b. An evaluation of the groundwater quality beneath the site and determination of compliance with the Groundwater Limitations, based on statistical analysis for each constituent monitored for each well. Include all calculations and data input/analysis tables derived from use of statistical software, as applicable.
9. Source Water Monitoring.
- a. Analytical data of the supply water. A narrative description of changes in water quality over time, if any, and the potential impact on the wastewater quality.
10. Supplemental Irrigation Monitoring
- a. Analytical data of the supplemental irrigation water. A narrative description of changes in water quality over time, if any, and the potential impact on the wastewater quality.
11. Pond Liner Leak Testing
- a. Results of the pond lining system, identification of any leaks, and if appropriate a plan and schedule for the leak repair.
 - b. Upon completion of any repairs performed, provide completion date and description of any deviations that occurred during repairs.

12. Additional Reporting

- a. A comparison of monitoring data to the flow limitations, effluent limitations, and discharge specifications and an explanation of any violation of those requirements
- b. 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.
- c. Monitoring equipment maintenance and calibration records, as described in Section C.4 of the 1 March 1991 SPRRs, shall be maintained by the Discharger and provided upon request by the Central Valley Water Board. Calibration records shall verify calibration of all handheld monitoring instruments and devices used to comply with the prescribed monitoring program.
- d. A discussion of the following:
 - i. Waste constituent reduction efforts implemented in accordance with any required workplan.
 - ii. Other treatment or control measures implemented during the calendar year either voluntarily or pursuant to the WDRs, this MRP, or any other Order.
 - iii. Based on monitoring data, an evaluation of the effectiveness of the treatment or control measures implemented to date.
- e. A discussion of any data gaps and potential deficiencies/ redundancies in the monitoring network or reporting program.

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

ADMINISTRATIVE REVIEW

Any person aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Wat. Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. To be timely, the petition must be received by the State Water Board by 5:00 pm on the 30th day after the date of this Order; 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 5:00 pm 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 webpage](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 foregoing is a full, true, and correct copy of the Monitoring and Reporting Program adopted by the California Regional Water Quality Control Board, Central Valley Region on xx Month 20xx.

PATRICK PULUPA, Executive Officer

GLOSSARY

BOD ₅	Five-day Biochemical Oxygen Demand
EC	Electrical Conductivity at 25° C
EPA	Environmental Protection Agency
ELAP	State Water Resources Control Board's Environmental Laboratory Accreditation Program
FDS	Fixed Dissolved Solids
LAAs	Land Application Areas
MDL	Method Detection Limit
MRP	Monitoring and Reporting Program
MW	Monitoring Well
MCL	Maximum Contaminant Level per Title 22
N	Nitrogen
PQL	Practical Quantitation Limit
RL	Reporting Limit
SPRRs	Standard Provisions and Reporting Requirements
Title 22	California Code of Regulations, Title 22
Title 23	California Code of Regulations, Title 23
TKN	Total Kjeldahl Nitrogen
TDS	Total Dissolved Solids
TSS	Total Suspended Solids
Wat. Code	Water Code
<u>Frequency</u>	
Daily	Every day except weekends or holidays
1/Week, Weekly	Once per week
1/Month, Monthly	Once per calendar month
1/Quarter, Quarterly	Once per calendar quarter
Semiannual	Once every six calendar months (i.e., two times per year) during non-consecutive quarters
Annually	Once per year

Units

gpd	gallons per day
in/day	inch per day
µg/L	micrograms per liter
µmhos/cm	micromhos per centimeter
mg/L	milligrams per liter
mg[d]	million gallons [per day]
MPN/100mL	most probable number per 100 milliliters
lb/ac/day	pounds per acre per day
lb/acre/mo	pounds per acre per month