ATTACHMENT B– MONITORING AND REPORTING PROGRAM

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ATTACHMENT B – MONITORING & REPORTING PROGRAM (MRP) NO. R1-2014-0041

Permittees regulated under the General WDRs for Discharges of Wine, Beverage, and Food Processor Waste to Land, Order No. R1-2014-0041 (General Order) shall be subject to the following monitoring and reporting requirements, unless such requirements are modified by the Executive Officer. California Water Code section 13267 authorizes the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement California regulations. Any person failing to furnish technical or monitoring reports or falsifying any information therein is guilty of a misdemeanor, and may be subject to civil liability. (Water Code section 13268)

I. GENERAL MONITORING PROVISIONS

A. Composite samples may be taken by a proportional sampling device approved by the Executive Officer or by grab samples composited in proportion to flow. In compositing grab samples, the sampling interval shall not exceed 1 hour.

B. If the Permittee monitors any pollutant more frequently than required by this Order, using test procedures as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the monthly and annual self-monitoring reports.

C. Laboratories analyzing monitoring samples shall be certified by the California Department of Public Health (DPH; formerly the Department of Health Services), in accordance with Water Code section 13176, and must include quality assurance/quality control data with their reports.

D. Compliance monitoring analyses shall be conducted using commercially available and reasonably achievable detection limits that are lower than the applicable effluent limitation. If no minimum level (ML) value is below the effluent limitation, the lowest ML shall be selected as the reporting level (RL).

II. PROCESS AND PRODUCTION VOLUME

A. Monitoring

The processing season, processing volume and production volume of the facility shall be recorded as listed below.

Parameter	Units
Processing Season	Start & End Dates (If processing takes place year round, report as "All Year")
Processing Volume	Tons/Year; Pounds/Year; or Gallons/Year (Use Units most appropriate for Type of Facility)
Production Volume	Cases/Year; Barrels/Year; Gallons/Year; Tons/Year; or Pounds/Year (Use Units most appropriate for Type of Facility)

B. Reporting

The annual process and production volume measurements shall be included in the 1st quarterly monitoring report and shall be submitted to the Regional Water Board on or before May 1 of the following year.

III. CHEMICAL USAGE

A. Monitoring

A summary of volume(s) and type(s) of chemical(s) used at the Facility that could be included in the process wastewater being treated and/or the process waste solids to be reused on lands as a soil amendment shall be recorded.

B. Reporting

Chemical usage measurements shall be included in the 1st quarterly monitoring report and shall be submitted to the Regional Water Board on or before May 1 of the following year.

IV. SEPTIC TANK(S) AND DISPOSAL FIELD(S)

A. Septic Tank Monitoring

Sludge and scum accumulation in all septic tanks shall be measured annually for the following parameters listed below. An inspection is not required during the year the septic tank is pumped.

Parameter	Units	Measurement	Frequency
Date of Inspection.	Date	------	Annually (Prior to July 1)
Sludge depth and scum thickness in each compartment of each septic tank.	Feet	Staff Gauge	Annually (Prior to July 1)
Distance between bottom of scum layer and bottom of outlet device.	Inches	Staff Gauge	Annually (Prior to July 1)
Distance between top of sludge layer and bottom of outlet device.	Inches	Staff Gauge	Annually (Prior to July 1)

B. Septic Tank Maintenance

The septic tank(s) shall be pumped when any of the following conditions exist.

Parameter	Condition
Combined sludge and scum thickness	Exceeds one third (1/3) of the tank depth of the 1st compartment
Bottom of floating scum layer	Within 3 inches of the outlet device
Top of sludge layer	Within 8 inches of the outlet device

C. Disposal Field Monitoring

The disposal or leachfields(s) shall be monitored for the parameters listed below.

Parameter	Units	Sample Type	Sampling Frequency
Flow	Gallons/Day (gpd)	Metered, Recorded Pumping Hours or Estimated based on water usage[1]	Monthly
Field condition	Dry or Saturated	Visual[2]	Monthly

Table Notes:
1. Water usage for the wine, food or other beverage processing activities only. Explanation of how this estimate was calculated must be included with the reported value.
2. Ponded wastewater on surface of leach field.

D. Disposal Field Maintenance

Systems designed with multiple disposal fields shall be alternated on a specified schedule, no less than semi-annually, to prevent clogging and surfacing effluent.

E. Septic Tank and Disposal Field Reporting

Septic tank and disposal field monitoring measurements shall be included in the quarterly monitoring report that reports on the time period when the measurement was taken. The due dates for the quarterly monitoring reports are listed in Section X.A of this document.

V. OTHER TREATMENT SYSTEMS

A. Treatment Pond System Monitoring

The Permittee shall monitor the following parameters of the process wastewater pond treatment system.

Parameter	**Units**	**Sample Type**	**Sampling Frequency**
Flow to Pond System	Gallons/Day (gpd)	Metered, Recorded Pumping Hours or Estimated based on water usage[1]	Monthly
Freeboard of each pond	Feet	Measured	Monthly
Dissolved Oxygen	mg/l	Grab	Monthly
Odors	- - - -	Observation	Monthly
Berm Condition	- - - -	Observation	Monthly
Depth of Settled Solids at the bottom of each pond	Feet	Measured	Annually

Table Notes:
1. Water usage for processing activities only. Explanation of how this estimate was calculated must be included with the reported value.

B. Non-pond Treatment System Monitoring

The Permittee shall monitor the following parameters of the process wastewater treatment system.

Parameter	**Units**	**Sample Type**	**Sampling Frequency**
Flow to Treatment System	Gallons/Day (gpd)	Metered, Recorded Pumping Hours or Estimated based on water usage[1]	Monthly
Odors	- - - -	Observation	Monthly
Operation & Maintenance Activities	- - - -	Reported	Monthly

Table Notes:
1. Water usage for processing activities only. Explanation of how this estimate was calculated must be included with the reported value.

C. Effluent Monitoring for Other Treatment Systems (includes pond & non-pond)

The Permittee shall monitor the following parameters of the treated process wastewater prior to reuse as crop or landscape irrigation water.

Parameter	Units	Sample Type	Sampling Frequency
Dissolved Oxygen	mg/l	Grab	Monthly
pH	pH Units	Grab	Monthly[1]
Biochemical Oxygen Demand	mg/l	Grab	Monthly[1]
Total Dissolved Solids	mg/l	Grab	Monthly[1]
Ammonia	mg/l	Grab	Monthly[1]
Nitrate (as N)	mg/l	Grab	Monthly[1]
Nitrogen, Total	mg/l	Grab	Monthly[1]
Chloride[2]	mg/l	Grab	Monthly[1]
Sodium[2]	mg/l	Grab	Monthly[1]
Fats, Oil & Grease[2]	mg/l	Grab	Monthly[1]

Table Notes:

1. When irrigation, re-use, or other type of land disposal is anticipated.
2. Applies only to those processing facilities identified by the Executive Officer in the Notice of Coverage letter.

D. Other Designed Treatment System Reporting

Other designed treatment system monitoring measurements shall be included in the quarterly monitoring report that reports on the time period when the measurement was taken. The due dates for the quarterly monitoring reports are listed in Section X.A of this document.

VI. GROUNDWATER

A. Groundwater Monitoring

Permittees discharging process wastewater below ground to a disposal field are required to monitor groundwater for the purpose of assessing compliance with the conditions of the General Order. Additionally, the Executive Officer may require in the Notice of Coverage (NOC) letter that any Permittee monitor groundwater if deemed necessary to verify compliance with the General Order. The Permittee shall monitor groundwater as follows:

Table C-5. Groundwater Monitoring – All Monitoring Wells

Parameter	Units	Sample Type	Minimum Sampling Frequency
Depth to Groundwater	0.01 feet	Measurement	Quarterly
Groundwater Elevation	0.01 feet MSL	Measurement	Quarterly
pH	std units	Grab	Quarterly
Nitrate (as N)	mg/L	Grab	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly
Chloride	mg/L	Grab	Quarterly
Sodium	mg/L	Grab	Quarterly

B. Groundwater Reporting

Groundwater monitoring measurements shall be included in the quarterly monitoring report covering the time period when the measurement was taken. The due dates for the quarterly monitoring reports can be found in Section X.A of this document.

C. Monitoring Well Construction

A minimum of three monitoring wells (one up-gradient and two down-gradient) shall be constructed as described in the design plans submitted with the Notice of Intent (NOI). Within 60 days after completion of construction of the monitoring wells, the Permittee shall submit a report that includes but is not limited to relevant subsurface stratigraphy and lithology; a diagram of each well showing total drilled depth, well installation depth, and construction details including screened interval and top of casing elevation; and location map of all installed wells.

D. Monitoring Well Locations

The monitoring wells shall be installed at appropriate locations and depths to yield groundwater samples to assess whether changes in groundwater quality are occurring as a result of the discharge to the disposal field. Samples shall be collected from the installed wells for the constituents as specified in Table C-5.

VII. LAND APPLICATION AREA

A. Irrigation Area Monitoring

The Permitee shall monitor the land application area throughout the processing season and while irrigation or other form of discharge is occurring. This information will be used to evaluate the hydraulic, nutrient, and salt loadings to the land application area and must be used to implement the Salt and Nutrient Management Plan. Monitoring of the land application area shall include the following:

Constituent/Parameter	**Units**	**Sample Type**	**Sample Frequency**
Crop Information			
Irrigated Crop	Type	N/A	Annually[4]
Crop Planting	tons/acre/year	Measured	Annually[4]
Crop Harvesting or Removal	tons/acre/year	Measured	Annually[4]
Hydraulic Loading			
Application Area	acres	N/A	Monthly[5]
Wastewater Flow	gallons	Metered	Monthly[5]
Wastewater Application Rate	inches/acre/month	Calculated	Monthly[5]
Supplemental Irrigation	inches/acre/month	Estimated	Monthly[5]
Rainfall	inches/acre/month	Rain gage[1]	Monthly[5]
Total Hydraulic Loading	inches/acre/month[2]	Calculated	Monthly[5][4]
BOD Loading[3]			
From Wastewater	lbs/acre/month	Calculated	Monthly[5]
Nitrogen Loading[3]			
From Wastewater	lbs/acre/month	Calculated	Monthly[5]
From Fertilizers	lbs/acre/month	Calculated	Monthly[5]
Salt Loading[3]			
From Wastewater	lbs/acre/month	Calculated	Monthly[5]

Table Notes:
1. Data obtained from the nearest National Weather Service rain gauge is acceptable.
2. Combined loading from wastewater, irrigation water, and rainfall.
3. Loading rates shall be calculated using the applied volume of wastewater, applied acreage, and reported monthly effluent concentrations for BOD, total nitrogen, and Total Dissolved Solids (TDS).
4. Reporting frequency annually, to be included with second semi-annual monitoring report
5. Reporting frequency semi-annually, to be included with the semi-annual monitoring report covering the time period when the measurement was collected.

The Permitttee shall inspect the land application area(s) at least once daily during each irrigation event. Evidence of erosion, field saturation, runoff, or the presence of nuisance

conditions (e.g., flies, odors, etc.) shall be noted in a field log and included as part of the monitoring report.

B. Land Application Area Reporting

Land Application Area measurements and calculations shall be included in the quarterly monitoring report covering the time period when the measurement was taken. The due dates for the quarterly monitoring reports can be found in Section X.A of this document.

VIII. FACILITY-SPECIFIC SALT AND NUTRIENT MANAGEMENT PLAN

A. Content

A Facility-specific Salt and Nutrient Management Plan (FSNMP) is required for those facilities that discharge treated process wastewater aboveground. The FSNMP shall include the components described in Attachment D of this Order. There shall be a section addressing the sources of salt contributions to the wastewater stream (such as caustic or chlorinated cleaners) and best management practices taken to minimize those contributions. Additionally, there shall be a section addressing nutrients present in the treated wastewater, the land application area, agronomic application rates and land application practices taken to eliminate any potential discharges to surface water.

B. Revisions

Changes or updates to the original FSNMP, approved by the Regional Water Board Executive Officer (EO) in the Notice of Coverage (NOC) letter, will need to be submitted to the Regional Water Board for approval.

IX. OTHER MONITORING REQUIREMENTS

A. Solids Monitoring

The Permittee shall monitor the following parameters of residual solid waste generated during wine, beverage or food processing activities:

1. Amount of solids generated annually;
2. Amount of solids stored annually (including location of storage and measures implemented to prevent leachate generation or control and disposal of any leachate that is generated);
3. Amount of solids applied annually on-site as a soil amendment; and
4. If applicable, the annual amount of solids applied or disposed off-site at an appropriate permitted facility (including amount disposed off-site, location of disposal site, and hauler identification).

B. Solids Monitoring Reporting

Solids monitoring measurements shall be included in the quarterly monitoring report covering the time period when the measurement was taken. The due dates for the quarterly monitoring reports can be found in Section X.A of this document.

X. REPORTING REQUIREMENTS

A. Monitoring Periods and Reporting Schedule

All monitoring results shall be reported in the quarterly monitoring reports which are to be received by the Regional Water Board by the 1st day of the second month after the six-month reporting period. Therefore, monitoring reports are due as follows:

Report Title	Reporting Period	Due Date
1st Quarter Report	January 1 through March 31	May 1
2nd Quarter Report	April 1 through June 30	August 1
3rd Quarter Report	July 1 through September 31	November 1
4th Quarter Report	October 1 through December 31	February 1, following year

B. Annual Summary

The first quarter monitoring report shall include a discussion, or annual summarization, of how the treatment and disposal system functioned the previous year. The summarization should discuss compliance (or non-compliance) with effluent limits and other General Order requirements and the corrective actions taken or planned to bring the discharge into full compliance with the General Order.

C. Electronic Reporting

Effective June 2, 2014, all regulatory documents, data, correspondence, or other materials should be submitted to the Regional Water Board via e-mail to NorthCoast@waterboards.ca.gov or on disk (CD or DVD) in a Portable Document Format (PDF) file in lieu of paper-sourced documents. The guidelines for electronic submittal of documents can be found on the Regional Water Board website at http://www.waterboards.ca.gov/northcoast.

D. Transmittal Letter

A transmittal letter, identifying the Facility name, address and WDID number shall accompany each monitoring report. The transmittal letter shall discuss any violations that occurred during the reporting period and all actions taken or planned for correcting the violations, such as operation or system modifications. If the Permittee previously submitted to the Regional Water Board a report describing the corrective action or time schedule for implementing the corrective actions, reference to the previous report is satisfactory.

E. Report Format

The Permittee shall arrange the monitoring results in tabular form so that the date, the constituents, and the concentrations are readily discernible. The results shall be summarized in such a manner as to illustrate clearly whether the discharge complies with the General Order. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurement(s);
2. The individual(s) who performed the sampling or measurement(s);
3. The date(s) analysis were performed;
4. The individual(s) who performed the analysis;
5. The analytical techniques or method used;
6. The results of such analysis; and
7. The complete laboratory data sheets for each analysis.

F. Signature and Submittal

The semi-annual monitoring reports shall be signed by a duly authorized representative, as identified in Section X. J of the General Order. The person signing the semi-annual report shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."