CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM ORDER WQ 2021-0002-DWQ-R5S002 FOR LAVA SPRINGS INC. LAVA CAP WINERY EL DORADO COUNTY

Water Code section 13267 provides that the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) may require that any person who discharges waste within its region submit technical or monitoring reports that the Board requires to investigate water quality. This Monitoring and Reporting Program Order (MRP) is issued pursuant to Water Code section 13267 to Lava Springs, Inc. (Discharger), Lava Cap Winery (Winery).

The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Central Valley Water Board. Failure to comply with the requirements of this MRP may subject the Discharger to enforcement action, including assessment of administrative civil liability (i.e., monetary penalties) up to $1,000 per violation per day. (Wat. Code, § 13268)

The Discharger was issued Notice of Applicability (NOA) WQ **2021-0002-DWQ-R5S002,** enrolling the Winery under State Water Resources Control Board (State Water Board) Order WQ 2021-0002-DWQ, *General Waste Discharge Requirements for Winery Process Water,* (General Order). All reports required by this MRP are necessary to evaluate compliance with the NOA and the General Order and to assess water quality impacts resulting from Winery waste discharges.

All monitoring and reporting conducted pursuant to this MRP shall meet the requirements specified in General Order sections G.2 and G.3.

QUALITY ASSURANCE AND CONTROL

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The Discharger shall use clean sample containers and sample handling, storage, and preservation methods in accordance with approved U.S. EPA analytical methods or as recommended by the selected analytical laboratory.
All analytical samples shall be labeled and records maintained to show the name of the sampler, date, time, sample location, sample type, collection method, bottle type, and any preservative used for each sample. All samples collected for laboratory analyses shall be preserved as required and submitted to the laboratory within the required holding time appropriate for the analytical method used and the constituents analyzed.

All samples submitted to a laboratory for analysis shall be identified in a properly completed and signed chain of custody form containing the sampler, date, time, sample

location, sample type, collection method, bottle type, and any preservative used for each sample. The chain of custody form shall also contain custody information, including the date, time, transport method, and to whom samples were relinquished.

Consistent with Water Code section 13176, data produced and reports submitted for compliance with this General Order must be generated by a laboratory with accreditation from the State Water Board, Division of Drinking Water, Environmental Laboratory Accreditation Program (ELAP), where accreditation is specific to the analyses required, or the laboratory must hold a valid certificate of accreditation for equivalent analytical test methods validated for the intended uses and approved by the State Water Board or regional water board. The laboratory must include quality assurance/quality control data in all data reports and submit electronic data as required by the State Water Board and regional water boards. Data generated using field tests are exempt pursuant to California Water Code Section 13176. Field instruments may be used to test field parameters (such as for pH, electrical conductivity, and dissolved oxygen) provided that the operator is trained in the proper use of the instrument and each instrument is serviced and/or calibrated at the recommended frequency by the manufacturer and in accordance with manufacturer instructions. Field calibration reports shall be maintained for at least **3 years**.

All sample and analysis field logs, laboratory reports, and quality assurance/quality control data shall be reported with the sample results to which it applies. The reports shall include applicable information such as the method, equipment, analytical detection, quantitation limits, recovery rates, an explanation for any recovery rate that is outside method specifications, results of method blanks, results of matrix spikes and surrogate samples, and the frequency of quality control analysis. Sample results shall be reported unadjusted for blank results or spike recovery. In cases where contaminants are detected in the quality assurance/quality control samples (e.g., laboratory blanks), the accompanying sample results shall be appropriately flagged.

SOURCE WATER MONITORING

The Discharger shall monitor each source of water supply used for winery processing activities (water supply well, surface water, municipal source, etc.) and for supplemental irrigation (e.g., agricultural well, irrigation canal, etc.). A copy of the most current local Consumer Confidence Report or analytical results submitted to the County Environmental Health Division or State Water Resources Control Board, Division of Drinking Water, as applicable may be submitted in lieu of sampling requirement.

Table 1. Source Water Monitoring

Parameter	Units	Sample Type	Sampling Frequency
Flow for Winery Process	gpd	Metered or calculated (Note 1)	Continuous, daily, or average daily flow
Supplemental Water Flow	gallon	Metered or estimated	Continuous, daily, or average daily flow
TDS	mg/L	Grab	Annually
FDS	mg/L	Grab	Annually
Total Kjeldahl Nitrogen (Note 2)	mg/L	Grab	Annually
Ammonia as Nitrogen (Note 2)	mg/L	Grab	Annually
Nitrate as Nitrogen (Note 2)	mg/L	Grab	Annually
Total Nitrogen (Note 2)	mg/L	Calculated	Annually

Note 1: Source water flowrate may be measured directly via a flowmeter or determined from customer billing information.

Note 2: Monitoring for supplemental irrigation water sources only.

EFFLUENT MONITORING

Winery effluent measurements and samples are required when process water is generated. The Discharger shall collect winery effluent flow measurements and samples after screening and at a point in the system where process water, including any process water generated from outdoor processing areas, discharges from the winery but before treatment in a pond, land application area, or subsurface disposal system. Winery effluent samples shall be collected downstream from the last connection through which wastewater can be distributed to the land application areas (LAAs). At a minimum, effluent monitoring shall consist of the following:

Table 2. Effluent Monitoring

Parameter	Units	Sample Type	Sampling Frequency
pH	pH units	Field	Crush-Season: Monthly Off-season: one-time
EC	µmhos/cm	Field	Crush-Season: Monthly Off-season: one-time
TDS	mg/L	Grab	Crush-Season: Monthly Off-season: one-time

Parameter	Units	Sample Type	Sampling Frequency
FDS	mg/L	Grab	Crush-Season: Monthly Off-season: one-time
Flow-weighted FDS (Note 1)	mg/L	Calculated	Annual
BOD_5	mg/L	Grab	Crush-Season: Monthly Off-season: one-time
Total Kjeldahl Nitrogen	mg/L	Grab	Crush-Season: Monthly Off-season: one-time
Ammonia as Nitrogen	mg/L	Grab	Crush-Season: Monthly Off-season: one-time
Nitrate + Nitrite as Nitrogen	mg/L	Grab	Crush-Season: Monthly Off-season: one-time
Total Nitrogen	mg/L	Grab	Crush-Season: Monthly Off-season: one-time

Note 1: The flow-weighted annual average Fixed Dissolved Solids (FDS) concentration represents the cumulative mass loading of FDS divided by the total volume of effluent discharged during the reporting period. FDS mass loading can be calculated by multiplying each month's measured FDS concentration by that month's total effluent flow volume.

LAND APPLICATION AREA MONITORING

LAA monitoring shall be conducted when there is discharge to land. Winery effluent flowrate (flowrate of process water to LAAs) shall be measured directly via a flowmeter or may be calculated using an accurate alternative method (e.g., assume effluent flow is equal to facility source water use, or calculate from a daily water balance of all effluent storage tank levels).

The Discharger shall perform the following routine monitoring and loading calculations for the LAAs. In addition, the Discharger shall inspect the LAAs and note the field conditions in field logs, a summary of which shall be included in the monitoring reports. Effluent monitoring results shall be used in calculations to ascertain loading rates at the LAAs. Data shall be collected and presented in tabular format for each individual management unit and shall include the following:

Table 3. Effluent to Land Application Area Monitoring

Parameter	Units	Sample Type	Frequency
Process Wastewater Flow (Note 1)	gpd	Meter or calculated	Daily
Supplemental water flow (Note 1)	gallon	Metered or estimated	Daily
Acreage Applied (Note 1)	acres	Measurement	Daily
Field Conditions (Note 2)	NA	Observation	Weekly
Days in irrigation cycle (Notes 3)	day	Observation	Daily
Precipitation	0.01 inch	Rain gauge (Note 4)	Daily
BOD_5 Loading (Note 5)			
Daily loading rate	lb/ac	Calculated	Daily
Cycle average	lb/ac/day	Calculated	Daily
Nitrogen Loading (Note 6)			
Nitrogen loading by source (Note 7)	lb/ac/mo	Calculated	Monthly
Cumulative nitrogen loading (Note 8)	lb/ac/yr	Calculated	Annually

Note 1: For land application fields divided into smaller management units (e.g., subfields, subareas, checks), identify the individual management unit number, its acreage, the amounts of process water and of supplemental water applied, and the cropping or planting activities at each individual management unit.

Note 2: Inspect the land application area for evidence of erosion, field saturation, runoff, or presence of nuisance conditions.

Note 3: Identify the number of wet days (i.e., days with process water irrigation) and dry days (i.e., non-irrigation days following wet days) in each irrigation cycle by individual management unit.

Note 4: National Weather Service or California Irrigation Management Information System (CIMIS) data from the nearest weather station are acceptable

Note 5: The daily calculation or estimate is necessary to calculate the cycle average BOD loading rates for each individual management unit, as described in Reporting C.11 of this MRP.

Note 6: Nitrogen loading for each individual management unit shall be calculated as described in Reporting C.12 of this MRP.

Note 7: Loading from each source of nitrogen applied to each individual management unit shall be shown as applicable, e.g., from process water, supplemental water, fertilizers, process solids, soil amendments, etc.

Note 8: Cumulative nitrogen loading shall be shown for each individual management unit.

SOLIDS MONITORING

Process solids monitoring shall be conducted when process solids are generated. the material shall be evenly spread

Monitoring shall also include solids characterization and field monitoring when process solids are land applied. Process solids monitoring shall include the following:

Table 4. Solids Monitoring

Parameter	Units	Sample Type	Frequency
Solids source (Note 1)	NA	Observation	Monthly
Solid generated (Note 1)	wet tons	Estimated or measured	Monthly
Disposal method (Note 1)	NA	Observation	Monthly
Amount of solids land applied by source (Note 2)	wet tons	Estimated or measured	Annually (Note 3)
Application area (Note 2)	acres	Observation	Annually (Note 3)

Note 1: Identify the source of the process solids (e.g., pomace, lees, pond dredging), the amount generated, and the solids disposal or reuse method (e.g., hauled offsite, land applied onsite).

Note 2: Monitor and sample solids only when process solids are applied to the LAA.

Note 3: Record the amount of solids by source applied to each individual management unit during the year.

REPORTING

The Discharger shall submit Compliance Letters and Annual Reports.

A Compliance Letter shall be submitted any month in which a violation occurs. Additionally, the Compliance Letter shall serve as the transmittal letter accompanying each monitoring report. Standalone Compliance Letters are due by the **first day of the second month after the monitoring period**. For example, a Compliance Letter for January is due on March 1.

All monitoring results for the reporting year shall be reported in the Annual Report, which is due by **April 1 after the reporting year**. For example, the Annual Report for reporting year 2026 is due on April 1, 2027. The reporting periods and reporting schedules are summarized in the following table.

Table 5. Reporting Schedule

Report	Reporting Period	Due Date
Compliance Letter (Note 1)	Jan – Dec	First day of the second month after reporting period
Annual Report	Jan – Dec	April 1

Note 1: Submit for any month in which a violation or exceedance occurs. Also submit as the transmittal letter for each monitoring report.

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample location, constituents, concentrations, and observations are readily discernible. The data shall be summarized in such a manner that illustrates clearly whether the Discharger complies with this General Order and facility NOA. The Discharger shall include copies of analytical laboratory reports. Results of any monitoring done more frequently than specified in the MRP shall be reported in the next regularly scheduled monitoring report and shall be included in calculations as appropriate.

All monitoring reports and compliance letters shall comply with the signatory requirements in the Reporting Provisions section of this General Order.

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 by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1.

Per General Order Provision G.3.a., the Discharger shall notify the Central Valley Water Board (via telephone or email) within **24 hours** from the time the Discharger has knowledge of a violation of the General Order that has occurred, or has a reason to believe that a violation may occur, due to: 1) maintenance work, power failure, or breakdown of process water system equipment, 2) accidents caused by human error or negligence, or 3) other causes such as acts of nature. The Discharger shall also notify the Central Valley Water Board within **24 hours** in the event of a process water containment failure, a spill or unauthorized discharge.

A. GeoTracker Electronic Reporting Requirements

All monitoring and technical reports and other correspondence must be converted to searchable Portable Document Format (PDF) and submitted electronically to the State Water Board's GeoTracker database. Once you receive an upload confirmation from GeoTracker that your report has been received, please send a courtesy email and confirmation number to centralvalleysacramento@waterboards.ca.gov and to the staff person indicated below.

The following information should be included in the body of the email or any documentation submitted to the mailing address for this office:

Attention:	Brendan Kenny, Compliance and Enforcement Unit Brendan.Kenny@waterboards.ca.gov (916) 464-4817
Discharger Name:	Lava Springs Inc.
Facility Name:	Lava Cap Winery
County:	El Dorado County
CIWQS Place ID:	755904

The Discharger shall follow the applicable Electronic Submittal of Information (ESI) requirements under the system-specific global identification number (Global ID) WDR100030354 at GeoTracker database:
https://geotracker.waterboards.ca.gov/esi/login.asp

In order to submit reports electronically, create a secure GeoTracker Electronic Submittal of Information (ESI) account and log in. The account will be connected to the Global ID. The Discharger can request a username and password online, which is accessible from the 'Getting Started' section on the GeoTracker ESI webpage (https://www.waterboards.ca.gov/ust/electronic_submittal/index.html)

Additional GeoTracker support information can be found at the following:

a. 'Guides/Resources' document link in the "Tools" on the GeoTracker ESI account.

b. Resources on the GeoTracker ESI website, such as the Beginner's Guide

(https://www.waterboards.ca.gov/ust/electronic_submittal/docs/geotracker_esi_rp_beginner s_guide_revisedoct2019.pdf)

c. General GeoTracker Help Desk contact information:

Phone: 1-866-480-1028, Email: geotracker@waterboards.ca.gov

B. Compliance Letters

Compliance letters shall include the following:

1. Discharger name, facility name, facility tier, MRP number, Waste Discharge Identification Number, and contact information (telephone number and email).

2. A discussion of any violations or exceedances that occurred during the reporting period, all actions taken or planned for correcting the violations and preventing future violations, such as operation or facility modifications, and a time schedule for completing the corrective actions. If the Discharger previously submitted a report describing corrective actions or a time schedule for implementing the corrective actions, reference to the previous correspondence is satisfactory.

3. This penalty of perjury statement shall be included and signed by the Discharger or the Discharger's duly authorized representative in compliance with the Reporting Provisions section of this General Order.

   "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."

C. Annual Reports

Annual Reports shall include the following:

Facility Information

1. Names and telephone numbers of persons to contact regarding the discharge for emergency and/or routine situations.

2. A scaled map that shows facility structures (e.g., buildings, crush pads), processing areas, process solids storage areas, ponds, land application areas, subsurface disposal areas, water supply wells, and groundwater monitoring wells, and any other relevant site features. Include identifying information, e.g., labels, well identification number, field and individual management unit numbers and acreages, etc.

3. A summary of any changes in processing that might affect waste characterization and/or discharge flowrates.

4. Copies of laboratory analytical reports and chain-of-custody.

Source Water Reporting

5. Results of the monitoring specified in the Source Water Monitoring section of the MRP.

Process Water Reporting

6. Results of the monitoring specified in the Effluent Monitoring section of the MRP. Results shall include supporting calculations.

7. A comparison of the effluent flow-weighted annual average FDS to the FDS threshold.

Land Application Area Reporting

8. Results of the monitoring and loading calculations specified in the Land Application Area Monitoring sections of the MRP.

9. Monthly and annual process water and supplemental water volumes applied to each individual management unit/land application area, expressed in gallons.

10. Total monthly and annual days of operation and monthly and annual process water and supplemental water volumes expressed in gallons. For each month, also calculate the maximum daily flow and the monthly average flows.

11. Calculation of the cycle average BOD loading rates for each individual management unit using the following formula. Include the number of days in each irrigation cycle.

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

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)
Mx = BOD mass from other sources (e.g., cattle manure, process solids, compost) if applicable, in pounds
8.345 = unit conversion factor

12. An annual nitrogen balance showing the total annual nitrogen loading (in pounds per acre per year [lb/ac/yr]) to each land application field or individual management unit, as appropriate, as calculated from the sum of the monthly loading from all sources of nitrogen applied to the land. The nitrogen balance shall include:

    a. Types of crops grown or landscape irrigated, planting and harvest dates, and crop harvest yield.

    b. Nitrogen loading by source using the formula below (e.g., fertilizer, process water, process solids, compost, etc.). Indicate any estimated nitrogen losses that reduced plant available nitrogen used in the nitrogen balance calculations.

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

Where:

M = mass of nitrogen applied to LAA in lb/ac/yr.

Ci	=	Monthly average concentration of total nitrogen for month i in mg/L.
Vi	=	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.).
Mx	=	nitrogen mass from other sources (e.g., fertilizer, manure, process solids, and compost) in pounds per acre.
8.345	=	unit conversion factor.

c. Crop uptake rates for each crop grown or landscape irrigated. Provide results of technical reference source of the crop up take rate values.

d. A comparison of the total nitrogen applied to the nitrogen taken up by the crop harvested or removed.

13. Summary of land application area monitoring log notations. Copies of the field logs do not need to be submitted unless requested by the Central Valley Water Board.

Solids Reporting

14. Results of the monitoring specified in the Solids Monitoring section of the MRP.

15. A description of the process solids disposal or reuse method. If more than one method is used, include the percentage disposed or reused by each method. Include the name and location of the disposal site; describe the reuse or disposal of the material (e.g., land application, composting onsite, offsite reuse, offsite compost facility, landfill disposal).

16. If process solids are land applied on-site, monthly and total amount of process solids applied to each land application area field or individual management unit and the applied acreage.

Compliance Summary

17. A discussion of any violations or exceedances that occurred during the reporting period, all actions taken or planned for correcting or preventing future violations, such as operation or facility modifications, and a time schedule for completing the corrective actions.

18. Descriptions of any improvements or modifications required by the facility NOA that were begun and/or completed during the reporting period and planned for the next reporting period. Include an implementation schedule.

19. Descriptions of any other notable repair or maintenance activities conducted this reporting period or planned for the next reporting period and provide the implementation schedule.

ADMINISTRATIVE REVIEW

Any person aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. 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; 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. The law and regulations applicable to filing petitions are available on the State Water Board website (http://www.waterboards.ca.gov/public_notices/petitions/water_quality). Copies will also be provided upon request.

The Discharger shall implement the above monitoring program as of the NOA effective date.

Ordered by: *Digitally signed by John J, Baum*
on 16 October 2026

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for PATRICK PULUPA, Executive Officer

GLOSSARY

µmhos/cm	micromhos per centimeter
BOD	biochemical oxygen demand
CIMIS	California Irrigation Management Information System
EC	electrical conductivity
ELAP	Environmental Laboratory Accreditation Program
ESI	Electronic Submittal of Information
FDS	fixed dissolved solids
gpd	gallons per day
in/ac/d	Inches per acre per day
in/ac/month	inches per acre per month
LAA	land application area
lb/ac	pounds per acre
lb/ac/d	pounds per acre per day
lb/ac/mo	pounds per acre per month
lb/ac/yr	pounds per acre per year
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MRP	monitoring and reporting program
NA	not applicable
NOA	Notice of Applicability
pdf	portable document format
TDS	total dissolved solids
TSS	total suspended solids
U.S. EPA	United States Environmental Protection Agency
Water Code	California Water Code
WDRs	Waste Discharge Requirements