

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

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**MONITORING AND REPORTING PROGRAM CI NO. 5322
FOR
LIMONEIRA COMPANY
(FILE NO. 66-066)**

This Monitoring and Reporting Program (MRP) CI No. 5322 is issued pursuant to California Water Code Section 13267, which authorizes the Regional Water Quality Control Board, Los Angeles Region (Regional Board) to require the Limoneira Company (hereinafter, Discharger) to submit technical and monitoring reports. The reports required herein are necessary to assure compliance with Waste Discharge Requirements (WDRs) and Water Recycling Requirements (WRRs) Order No. R4-2014-XXXX and to protect the waters of the state and their beneficial uses. The evidence that supports the need for the reports is set forth in the WDRs/WRRs and the Regional Board Record.

I. SUBMITTAL OF REPORTS

1. The Dischargers shall submit the required reports, outlined in the following paragraphs to the Regional Board. The reports shall be received at the Regional Board via GeoTracker database under Global ID WDR100001131 on the dates indicated as follows:
 - A. **Quarterly Monitoring Reports** shall be received at the Regional Board by the 15th day of the second month following the end of each quarterly monitoring period according to Table 1. The first monitoring report under this program shall be received at the Regional Board by July 15, 2014.

Table 1. Reporting Period and Due Dates

Reporting Period	Report Due
January - March	April 15
April - June	July 15
July - September	October 15
October – December	January 15

- B. **Annual Summary Report** shall be received at the Regional Board March 1 of each year. The first Annual Summary Report under this program shall be received at the Regional Board on March 1, 2015.

If there is no discharge during any reporting period, the report shall so state.

2. The Dischargers shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the MRP, including electronic data format (EDF) groundwater monitoring data, discharge location data, and pdf monitoring to the State Water Resources Control Board (State Board) GeoTracker database under Global ID WDR100001131.

II. MONITORING REQUIREMENTS

1. Monitoring shall be used to determine compliance with the requirements of this Order and shall include, but not limited to, the following:
 - A. Locations of each groundwater monitoring station where representative samples can be obtained and the rationale for the selection. The Discharger must include a map, at a scale of 1 inch equals 1,200 feet or less, that clearly identifies the locations of all monitoring wells, and production wells.
 - B. Sampling protocols (specified in 40 CFR Part 136 or AWWA standards where appropriate) and chain of custody procedures.
 - C. For groundwater monitoring, outline the methods and procedures to be used for measuring water levels; purging wells; collecting samples; decontaminating equipment; containing, preserving, and shipping samples, and maintaining appropriate documentation. Also include the procedures for handling, storing, testing, and disposing of purge and decontamination waters generated from the sampling events.
 - D. Laboratory or laboratories, which conducted the analyses. Include copy or copies of laboratory certifications by the California Department of Public Health (CDPH) Environmental Laboratory Accreditation Program (ELAP) every year or when the Discharger changes their contract laboratory.
 - E. Analytical test methods used and the corresponding detection limits for reporting purposes (DLRs) unregulated and regulated chemicals. For regulated chemicals, please see the CDPH's website at:
<http://www.cdph.ca.gov/certlic/drinkingwater/Pages/EDT.aspx>
 - F. Quality assurance and control measures.
2. The samples shall be analyzed using analytical methods described in 40 CFR Part 136; or where no methods are specified for a given pollutant, by commercially available methods approved by the CDPH, Regional Board and/or State Board. The Discharger shall select the analytical methods that provide reporting detection limits (DLRs) lower than the limits prescribed in this Order.
3. The Discharger shall instruct its laboratories to establish calibration standards so that the DLRs (or its equivalent if there is a different treatment of samples relative to calibration standards) are the lowest calibration standard. At no time shall the Discharger use analytical data derived from extrapolation beyond the lowest point of the calibration curve.
4. Upon request by the Discharger, the Regional Board, in consultation with the CDPH and the State Board Quality Assurance Program, may establish DLRs, in any of the following situations:

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- A. When the pollutant has no established method under 40 CFR 136 (revised May14, 1999, or subsequent revision);
 - B. When the method under 40 CFR 136 for the pollutant has a DLR higher than the limit specified in this Order; or,
 - C. When the Discharger agrees to use a test method that is more sensitive than those specified in 40 CFR Part 136 and is commercially available.
5. Samples of disinfected effluent must be analyzed within allowable holding time limits as specified in 40 CFR Part 136.3. All QA/QC analyses must be run on the same dates when samples were actually analyzed. The Discharger shall make available for inspection and/or submit the QA/QC documentation upon request by Regional Board staff. Proper chain of custody procedures must be followed and a copy of that documentation shall be submitted with the quarterly report.
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6. For unregulated chemical analyses, the Discharger shall select methods according to the following approach:
 - A. Use drinking water methods, if available;
 - B. Use CDPH-recommended methods for unregulated chemicals, if available;
 - C. If there is no CDPH-recommended drinking water method for a chemical, and more than a single EPA-approved method is available, use the most sensitive of the EPA-approved methods;
 - D. If there is no EPA-approved method for a chemical, and more than one method is available from the scientific literature and commercial laboratory, after consultation with CDPH, use the most sensitive method;
 - E. If no approved method is available for a specific chemical, the Discharger's laboratory may develop or use its own methods and should provide the analytical methods to CDPH for review. Those methods may be used until CDPH recommended or EPA-approved methods are available.
 - F. If the only method available for a chemical is for wastewater analysis (e.g., a chemical listed as a priority pollutant only), sample and analyze for that chemical in the treated and disinfected effluent immediately increase the likelihood of detection. Use this approach until the Discharger's laboratory develops a method for the chemical in drinking water, or until a CDPH-recommended or EPA-approved drinking water method is available.
 - G. The Discharger is required to inform the Regional Board, in event that D, E, F is occurring.

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III. REPORTING REQUIREMENTS

The Discharger shall submit all reports, shown on Section I SUBMITTAL OF REPORTS to the Regional Board by the dates indicated. All quarterly, and annual monitoring reports should contain a separate section titled "Summary of Non-Compliance", which discusses the compliance records and corrective actions taken or planned that may be needed to bring the reuse into full compliance with water recycling requirements. This section shall clearly list all non-compliance with WDRs and WRRs, as well as all excursions of effluent limitations.

1. Quarterly reports

- A. These reports shall include, at a minimum, the following information:
 - a. The volume of the final effluent and the final effluent used for recycled water. If no recycled water is used during the quarter, the report shall so state.
 - b. The date and time of sampling and analyses.
 - c. All analytical results of samples collected during the monitoring period of the final effluent and groundwater.
 - d. Records of any operational problems, plant upset and equipment breakdowns or malfunctions, and any discharge(s) of the final effluent and the final effluent used for recycled water.
 - e. Discussion of compliance, noncompliance, or violation of requirements.
 - f. All corrective or preventive action(s) taken or planned with schedule of implementation, if any.
- B. For the purpose of reporting compliance with numerical limitations, analytical data shall be reported using the following reporting protocols:
 - a. Sample results greater than or equal to the DLR must be reported "as measured" by the laboratory (i.e., the measured chemical concentration in the sample); or
 - b. Sample results less than the DLR, but greater than or equal to the laboratory's method detection limit (MDL), must be reported as "Detected, but Not Quantified", or DNQ. The laboratory must write the estimated chemical concentration of the sample next to DNQ as well as the words "Estimated Concentration" (may be shortened to Est. Conc.); or
 - c. Sample results less than the laboratory's MDL must be reported as "Not-Detected", or ND.

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- C. If the Discharger samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) on any sample more frequently than required in this MRP using approved analytical methods, the results of those analyses shall be included in the report. These results shall be reflected in the calculation of the average used in demonstrating compliance with average effluent, receiving groundwater water, etc., limitations.
- D. The Regional Board may request supporting documentation, such as daily logs of operations.

2. Annual Reports

- A. Tabular and graphical summaries of the monitoring data obtained during the previous calendar year.
- B. Discussion of the compliance record and corrective or preventive action(s) taken or planned that may be needed to bring the treated effluent, including the treated effluent used for recycled water, into full compliance with the requirements in this Order.
- C. An in-depth discussion of the results of the groundwater monitoring and final effluent monitoring programs conducted during the previous year.
- D. The description of any changes and anticipated changes including any impacts in operation of any unit processes or facilities shall be provided.
- E. A list of the analytical methods employed for each test and associated laboratory quality assurance/quality control procedures shall be included. The report shall restate, for the record, the laboratories used by the Discharger to monitor compliance with this Order, their status of certification, and provide a summary of performance.
- F. The report shall confirm operator certification and provide a list of current operating personnel, their responsibilities, and their corresponding grade of certification.
- H. The report shall also include the date of the Limoneira Wastewater Treatment Plant (Plant)'s Operation and Maintenance Management Plan, the date the plan was last reviewed, and whether the plan is complete and valid for the current Plant.
- I. The groundwater monitoring portion of the annual report shall be prepared under the direction of an engineer registered in the State of California, or a certified hydrogeologist in California, and experienced in the field of recycled water practices. All groundwater monitoring reports must include, at minimum, the following:

- a. Well identification, date and time of sampling;
- b. Sampler identification, and laboratory identification; and,
- c. Quarterly observation of groundwater levels, recorded to .01 feet mean sea level, flow direction.

If there is no discharge or water recycled during any reporting period, the report shall so state.

IV. WATER QUALITY MONITORING REQUIREMENTS

1. EFFLUENT MONITORING REQUIREMENTS FOR RECYCLED WATER

A sampling station shall be established where representative samples of recycled water can be obtained prior to discharge by spray irrigation to the alfalfa field. Recycled water samples may be obtained at a single station provided that station is representative of the quality at all discharge points. Each sampling station shall be identified.

The following shall constitute the effluent monitoring program for recycled water, specified in Table 2:

Table 2. Effluent Monitoring

Constituent	Units ²	Type of Sample	Minimum Frequency ³ of Analysis
Total Flow ¹	gallon/day	recorder	continuous
pH	pH units	grab	monthly
BOD ₅ 20°C	mg/L	grab	quarterly
Total suspended solids	mg/L	grab	quarterly
Oil & grease	mg/L	grab	quarterly
MBAS (Surfactants)	mg/L	grab	quarterly
Total phosphorus as P	mg/L	grab	quarterly
Nitrite as Nitrogen	mg/L	grab	monthly
Nitrate as Nitrogen	mg/L	grab	monthly
Ammonia as Nitrogen	mg/L	grab	monthly
Organic Nitrogen	mg/L	grab	monthly
Total Kjeldahl Nitrogen	mg/L	grab	monthly
Total nitrogen ⁴	mg/L	grab	monthly
Turbidity	NTU	grab	monthly
Total coliform	MPN/100mL	grab	monthly
Fecal coliform	MPN/100mL	grab	monthly
E. coli	MPN/100mL	grab	monthly
Enterococcus	MPN/100mL	grab	monthly

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Constituent	Units ²	Type of Sample	Minimum Frequency ³ of Analysis
Total dissolved solids	mg/L	grab	quarterly
Sulfate	mg/L	grab	quarterly
Chloride	mg/L	grab	quarterly
Boron	mg/L	grab	quarterly
Total residual chlorine	mg/L	grab	quarterly
Glyphosate	mg/L	grab	quarterly
Simazine	mg/L	grab	quarterly
Abamectin	mg/L	grab	quarterly
Norflurazon	mg/L	grab	quarterly
Chlorpyrifos	mg/L	grab	quarterly
Metaldehyde	mg/L	grab	quarterly
Total trihalomethanes (TTHMs)	mg/L	grab	semiannually
Priority pollutants ⁵	µg/L	grab	annually

¹For those constituents that are continuously monitored the Discharger shall report the minimum, maximum, and daily average values

²mg/L=milligrams per liter; µg/L= micrograms per liter; MPN/100mL=most probable number per 100 milliliters; NTU= Nephelometric turbidity units

³If any constituent exceeds the baseline water quality data, then the frequency of analysis shall increase to monthly until at least three consecutive test results have been obtained. After which if no constituents exceed the baseline, the frequency of analysis shall revert back to quarterly.

⁴Total nitrogen = nitrate-N + nitrite-N + ammonia-N + Organic Nitrogen

⁵See Appendix A to 40 CFR, Part 423 for list of priority pollutants

2. GROUNDWATER MONITORING PROGRAM

The following shall constitute the groundwater monitoring program for the Limoneira Company, specified in Table 3:

Table 3. Groundwater monitoring

Constituent	Units ¹	Type of Sample	Minimum Frequency ² of Analysis
pH	pH units	grab	Quarterly
BOD ₅ 20°C	mg/L	grab	Quarterly
Nitrite as Nitrogen	mg/L	grab	Quarterly
Nitrate as Nitrogen	mg/L	grab	Quarterly
Ammonia as Nitrogen	mg/L	grab	Quarterly
Organic Nitrogen	mg/L	grab	Quarterly
Total phosphorus as P	mg/L	grab	Quarterly
MBAS (surfactants)	mg/L	grab	Quarterly
Total Nitrogen ³	mg/L	grab	Quarterly
Total dissolved solids	mg/L	grab	Quarterly

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Constituent	Units ¹	Type of Sample	Minimum Frequency ² of Analysis
Sulfate	mg/L	grab	Quarterly
Chloride	mg/L	grab	Quarterly
Boron	mg/L	grab	Quarterly
Total coliform	MPN/100mL	grab	Quarterly
Fecal coliform	MPN/100mL	grab	Quarterly
Enterococcus	MPN/100mL	grab	Quarterly
E. coli	MPN/100mL	grab	Quarterly
Glyphosate	mg/L	grab	Quarterly
Simazine	mg/L	grab	Quarterly
Abamectin	mg/L	grab	Quarterly
Norflurazon	mg/L	grab	Quarterly
Chlorpyrifos	mg/L	grab	Quarterly
Metaldehyde	mg/L	grab	Quarterly
Priority pollutants ³	µg/L	grab	Annually

¹mg/L=milligrams per liter; µg/L=micrograms per liter; MPN/100mL = most probable number (MPN) per 100 milliliters.

²If any constituent exceeds the baseline water quality data, then the frequency of analysis shall increase to monthly until at least three consecutive test results have been obtained. After which if no constituents exceed the baseline, the frequency of analysis shall revert back to quarterly.

³Total nitrogen = nitrate-N + nitrite-N + ammonia-N + Organic Nitrogen

⁴See Appendix A to 40 CFR, Part 423 for list of priority pollutants

All groundwater monitoring reports must include, at minimum, the following:

- a. Well identification, date and time of sampling;
- b. Sampler identification, and laboratory identification; and
- c. Quarterly observation of groundwater levels, recorded to .01 feet mean sea level, flow direction.
- d. Vertical separation of the water table from the bottom of the seepage pits.

V. GENERAL MONITORING AND REPORTING REQUIREMENTS

- The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
- For every item where the requirements are not met, the Discharger shall submit a statement of the actions undertaken or proposed which will bring the treated effluent and/or treated effluent used for the recycled water program into full compliance with requirements at the earliest possible time, and submit a timetable for implementation of the corrective measures.
- Monitoring reports shall be signed by either the principal Executive Officer or ranking elected official. A duly authorized representative of the aforementioned signatories may sign documents if:

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- A. The authorization is made in writing by the signatory;
- B. The authorization specifies the representative as either an individual or position having responsibility for the overall operation of the regulated facility or activity; and,

The written authorization is submitted to the Executive Officer of this Regional Board.

- 4. The monitoring report shall contain the following completed declaration:

"I certify under penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated 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 a fine and imprisonment.

Executed on the ____ day of _____ at _____.

_____(Signature)

_____(Title)"

- 5. The Discharger shall retain records of all monitoring information, including all calibration and maintenance, monitoring instrumentation, and copies of all reports required by this Order, for a period of at least three (3) years from the date of sampling measurement, or report. This period may be extended by request of the Regional Board at any time and shall be extended during the course of any unresolved litigation regarding the regulated activity.
- 6. Records of monitoring information shall include:
 - A. The date, exact place, and time of sampling or measurements;
 - B. The individual(s) who performed the sampling or measurements;
 - C. The date(s) analyses were performed;
 - D. The individual(s) who performed the analysis;
 - E. The analytical techniques or methods used; and
 - F. The results of such analyses.

7. The Discharger shall submit to the Regional Board, together with the first monitoring report required by this Order, a list of all chemicals and proprietary additives which could affect the quality of the treated effluent and the treated effluent used for recycled water, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly. An annual summary of the quantities of all chemicals, listed by both trade and chemical names, which are used in the treatment process shall be included in the annual report.

VI. WASTE HAULING REPORTING

In the event that waste oil and grease, sludge, or other wastes are hauled offsite, the name and address of the hauler shall be reported, along with types and quantities hauled during the reporting period and the location of final point of disposal. In the event that no wastes are hauled during the reporting period, a statement to that effect shall be submitted.

VII. MONITORING FREQUENCIES

Monitoring frequencies may be adjusted to a less frequent basis or parameters dropped by the Executive Officer if the Discharger makes a request and the Executive Officer determines that the request is adequately supported by statistical trends of monitoring data submitted.

These records and reports are public documents and shall be made available for inspection during normal business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region.

Ordered by: _____
Samuel Unger, P.E.
Executive Officer

Date: April 10, 2014

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