

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

**MONITORING AND REPORTING PROGRAM NO. R6V-2009-0034
WDID NO. 6B190501001**

**MASTER WATER RECYCLING REQUIREMENTS AND
WASTE DISCHARGE REQUIREMENTS
COUNTY SANITATION DISTRICT NO. 14 OF LOS ANGELES COUNTY
(LANCASTER)
DISINFECTED TERTIARY RECYCLED WATER**

_____ Los Angeles County _____

I. MONITORING

A. Flow Monitoring

1. County Sanitation District No. 14 of Los Angeles County (District) shall record the total volume, in million gallons, and the average flow rate, in million gallons per day (mgd), of recycled water provided by the District to each Authorized Water Use site. This information must be recorded and reported for each calendar month.
2. The District shall record the total volume, in million gallons, and the average 24-hour flow rate, in mgd, of recycled water supplied by the Antelope Valley Tertiary Treatment Plant into the North Los Angeles/Kern County Regional Recycled Water Project distribution system. This information must be recorded and reported for each calendar month.
3. The District shall record the total volume, in million gallons, and the average 24-hour flow rate, in mgd, of recycled water supplied by the Membrane Bioreactor Plant into the North Los Angeles/Kern County Regional Recycled Water Project distribution system. This information must be recorded and reported for each calendar month.
4. The District shall record the total volume, in million gallons, and the average 24-hour flow rate, in mgd, of recycled water supplied by the Activated Sludge/Nitrification-Denitrification Plant (Stage V Tertiary Treatment Plant) into the North Los Angeles/Kern County Regional Recycled Water Project distribution system. This information must be recorded and reported for each calendar month.

B. Agronomic Application Rate Monitoring for Fertilizers and Recycled Water

1. For each calendar month, the District shall record, and provide a tabular comparison of, the:
 - a. volume of water required for plant growth in each irrigated area;
 - b. volume of recycled water (and supplemental water) applied to each irrigated area; and
 - c. number of acres for each irrigated area.

2. For each calendar month, the District shall record, and provide a tabular comparison of, the:
 - a. amount of nitrogen (N) needed for plant growth in each landscape and agricultural area;
 - b. total amount of N applied to each area, including the amount of N in the recycled water and the amount of N in any fertilizer applied; and
 - c. number of acres for each area.

C. Recycled Water Quality Monitoring

The District must collect and analyze samples of the recycled water supplied by the (1) Antelope Valley Tertiary Treatment Plant, (2) Membrane Bioreactor Plant, and (3) Stage V Tertiary Treatment Plant for reuse by recycled water users in accordance with the following table:

Parameter	Units	Type	Minimum Frequency
Turbidity ¹	NTU	Recorder	Continuous
Total Chlorine Residual	mg/L	Recorder	Continuous (When chlorine is used as disinfectant)
Modal Contact Time ²	minutes	Calculated	Daily (When chlorine is used as disinfectant)
CT Value ³	mg-minutes/L	Calculated	Daily (When chlorine is used as disinfectant)
Total Coliform	MPN/100mL	Grab	Daily
Kjeldahl Nitrogen	mg/L	Composite	Monthly
Ammonia Nitrogen	mg/L	Composite	Monthly
Nitrate Nitrogen	mg/L	Composite	Monthly
Total Dissolved Solids	mg/L	Composite	Monthly
Sulfate	mg/L	Composite	Monthly
Chloride	mg/L	Composite	Monthly
Total Trihalomethanes	µg/L	Grab	Quarterly
n-nitrosodimethylamine	µg/L	Grab	Quarterly
Priority Pollutants, excluding asbestos (Appendix A to 40CFR part 423)	as specified	Grab	Semi Annually

¹For each 24-hour period, record and report the following:

- a. Antelope Valley Tertiary Treatment Plant: average turbidity, amount of time (minutes) the turbidity exceeded five (5) NTUs (if any), and the maximum turbidity.
- b. Membrane Bioreactor Plant: amount of time (minutes) the turbidity exceeded 0.2 NTUs (if any) and the maximum turbidity.
- c. Stage V Tertiary Treatment Plant: average turbidity, amount of time (minutes) the turbidity exceeded five (5) NTUs (if any), and the maximum turbidity.

²The modal contact time at the highest and lowest flows must be recorded and reported for each 24-hour period, where there is production of disinfected tertiary recycled water. The "modal contact time" is the amount of time elapsed between the time that a tracer, such as salt or dye, is injected into the influent at the entrance to a chamber and the time that the highest concentration of the tracer is observed in the effluent from the chamber. For the purpose of this determination, modal contact time shall be derived from a predetermined plot correlating modal contact times to varying flow conditions. (CCR, title 22, sec 60301.600)

³When chlorine is used as the disinfectant in production of disinfected tertiary recycled water, the lowest CT value must be calculated for each 24-hour period. $CT \text{ (mg-minutes per liter)} = \text{chlorine residual (mg/L)} \times \text{modal contact time (minutes)}$. To calculate the lowest value, first record the following data for the 24-hour period:

- a. Modal contact time under highest flow and corresponding total chlorine residual at that time.
- b. Lowest total chlorine residual and corresponding modal contact time.
- c. Highest total chlorine residual and corresponding modal contact time.
- d. Modal contact time under lowest flow and corresponding total chlorine residual at that time.

Next, calculate CT values for each of the four conditions, above. The lowest of the four calculated CT values is the lowest CT for the period.

D. Quarterly Recycled Water Use Monitoring

The District must record the following information each quarter (quarters defined in Requirement No. II.B, below) in accordance with Water Code section 13523.1(b)(4):

1. Total amount of recycled water supplied into the North Los Angeles/Kern County Regional Recycled Water Project distribution system during the quarter.
2. The total number of sites that received recycled water during the quarter.
3. A list of all recycled water use sites. For each site, the list must include:
 - a. site name,
 - b. site location
 - c. name of underlying hydrologic area
 - d. user name
 - e. type of use
 - f. site area (acres)
 - g. date of District recycled water use approval
4. A map of suitable scale showing the boundary of the Permit Area (as defined by Finding No. 9 of Board Order R6V-2009-0034 and showing the approved recycled water use site locations.

E. Inspections and Enforcement Monitoring

1. The District must provide in its annual report (see Requirement No. II.D, below) an inspection schedule for all recycled water use facilities. The inspection schedule shall document the date of each facility's prior inspection and its respective compliance status. Any facility with a reported incidence of noncompliance in its most recent inspection report must be re-inspected no later than one year from its prior inspection. Any facility that was in compliance during its most recent inspection must be scheduled for a re-inspection no later than three years from its prior inspection.
2. The District must record and report on a quarterly basis all recycled water use sites inspected pursuant to Requirement No. I.B.4 of Board Order No. R6V-2009-0034 during each respective quarter (See Requirement No. II.B, below). The list of sites inspected must include the following information for each recycled water use site:
 - a. Date of inspection, name of recycled water use site, user name, and type of use.

- b. A description of all noted violations (including compliance with Requirement Nos. I.C.1 through I.C.15 of Board Order No. R6V-2009-0034).
 - c. The date compliance was achieved and the respective corrective action taken, if applicable.
 - d. A description of enforcement action taken (if any), including any schedule for achieving compliance.
 - e. Date of prior compliance inspection.
3. The District must ensure that monthly inspections of all signage informing the public that recycled water is currently being used for irrigation purposes at each irrigation recycled water use facility are completed. Maintenance of this signage is required. The results of such inspections must be reported by the District in its quarterly report (see Requirement No. II.B, below).
 4. The District must ensure that monthly inspections of all Best Management Practices (BMPs) in place to prevent contamination of potable water supplies (including groundwater) are completed. The results of such inspections and measures taken to maintain and repair these BMPs must be reported by the District in its quarterly report (see Requirement No. II.B, below).
 5. The District must ensure that annual visual inspections of the recycled water distribution system for cross connections with the potable water supply are completed.
 6. The District must ensure that the recycled water distribution system is annually inspected for leaks or drops in pressure, and that pressure tests are conducted at a minimum once every three years.

F. Operation and Maintenance Monitoring

The District must record and maintain records of all actions and analytical results necessary to demonstrate compliance with California Department of Public Health conditions identified in Board Order No. R6V-2009-0034, Requirement No. II.B., and to document any operational problems and maintenance activities with the recycled water treatment facilities, distribution system, and user sites. The District must submit a brief summary of its findings to the California Regional Water Quality Control Board, Lahontan Region (Lahontan Water Board) with each quarterly monitoring report. This summary must discuss the elements listed below.

1. All modifications or additions to the recycled water treatment facilities, distribution systems, and user sites;

2. Test results of all backflow prevention devices at each recycled water use site.
3. The results of cross connection inspections at each authorized recycled water use site.
4. Test results of the District's recycled water distribution system pressure testing.
5. Any non-routine maintenance conducted on the recycled water treatment facilities, distribution system, and user systems.
6. Any major problems occurring to the recycled water treatment facilities, distribution system, and user systems.
7. Calibration results of any recycled water flow measuring devices.

II. REPORTING

A. General Provisions

1. The District must comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is attached to and made part of this Monitoring and Reporting Program (Attachment A).
2. Pursuant to General Provision No. 1.d of the General Provisions for Monitoring and Reporting, the District must submit to the Lahontan Water Board by **September 8, 2009**, a Sampling and Analysis Plan (SAP) for consideration of approval. The SAP must include a detailed description of procedures and techniques for:
 - a. Sample collection, including purging techniques, sampling equipment, and decontamination of sampling equipment;
 - b. Sample preservation and shipment;
 - c. Analytical procedures;
 - d. Chain of custody control; and
 - e. Quality assurance/quality control (QA/QC)

B. Quarterly Reports

Beginning on **September 1, 2009**, quarterly monitoring reports including the preceding information must be submitted to the Lahontan Water Board by the first day of the third month following each quarterly monitoring period [Water Code section 13523.1(b)(4)].

Quarterly monitoring periods are defined as follows:

First Quarter	January 1 - March 31
Second Quarter	April 1 - June 30
Third Quarter	July 1 - September 30
Fourth Quarter	October 1 - December 31

C. Semi-Annual Report

Beginning on **September 1, 2009**, semi-annual monitoring reports including the preceding information must be submitted to the Lahontan Water Board by the first day of the third month following each semi-annual monitoring period [Water Code section 13523.1(b)(6)].

Semi-annual monitoring periods are defined as follows:

First half	January 1 - June 30
Second half	July 1 – December 31

D. Annual Report

Beginning on **April 1, 2010** and continuing thereafter, the District must submit an annual report to the Lahontan Water Board with the information listed.

1. Documentation of the District's compliance status with Board Order No. R6V-2009-0034, including progress made towards developing the salt/nutrient management plan that is required by Board Order No. R6V-2009-0034, Requirement No. III.A.
2. The compliance record and the corrective actions taken or scheduled/planned to return the District into full compliance with Board Order No. R6V-2009-0034.
3. The District's time schedule for completing corrective actions needed to achieve compliance.

Ordered by: Harold J. Singer Dated: June 10, 2009
HAROLD J. SINGER
EXECUTIVE OFFICER

Attachment A: General Provisions for Monitoring and Reporting Program

ATTACHMENT A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

GENERAL PROVISIONS
FOR MONITORING AND REPORTING

1. SAMPLING AND ANALYSIS

- a. All analyses shall be performed in accordance with the current edition(s) of the following documents:
 - i. Standard Methods for the Examination of Water and Wastewater
 - ii. Methods for Chemical Analysis of Water and Wastes, EPA
- b. All analyses shall be performed in a laboratory certified to perform such analyses by the California State Department of Health Services or a laboratory approved by the Regional Board Executive Officer. Specific methods of analysis must be identified on each laboratory report.
- c. Any modifications to the above methods to eliminate known interferences shall be reported with the sample results. The methods used shall also be reported. If methods other than EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Regional Board Executive Officer prior to use.
- d. The discharger shall establish chain-of-custody procedures to insure that specific individuals are responsible for sample integrity from commencement of sample collection through delivery to an approved laboratory. Sample collection, storage, and analysis shall be conducted in accordance with an approved Sampling and Analysis Plan (SAP). The most recent version of the approved SAP shall be kept at the facility.
- e. The discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall insure that both activities will be conducted. The calibration of any wastewater flow measuring device shall be recorded and maintained in the permanent log book described in 2.b, below.
- f. A grab sample is defined as an individual sample collected in fewer than 15 minutes.
- g. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period at equal intervals. The volume of each individual sample shall be proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

2. OPERATIONAL REQUIREMENTS

a. Sample Results

Pursuant to California Water Code Section 13267(b), the discharger shall maintain all sampling and analytical results including: strip charts; date, exact place, and time of sampling; date analyses were performed; sample collector's name; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

b. Operational Log

Pursuant to California Water Code Section 13267(b), an operation and maintenance log shall be maintained at the facility. All monitoring and reporting data shall be recorded in a permanent log book.

3. REPORTING

a. 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 discharge into full compliance with requirements at the earliest time, and shall submit a timetable for correction.

b. Pursuant to California Water Code Section 13267(b), all sampling and analytical results shall be made available to the Regional Board upon request. Results shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

c. The discharger shall provide a brief summary of any operational problems and maintenance activities to the Board with each monitoring report. Any modifications or additions to, or any major maintenance conducted on, or any major problems occurring to the wastewater conveyance system, treatment facilities, or disposal facilities shall be included in this summary.

d. Monitoring reports shall be signed by:

i. In the case of a corporation, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;

ii. In the case of a partnership, by a general partner;

iii. In the case of a sole proprietorship, by the proprietor; or

- iv. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.
- e. Monitoring reports are to include the following:
 - i. Name and telephone number of individual who can answer questions about the report.
 - ii. The Monitoring and Reporting Program Number.
 - iii. WDID Number.
- f. Modifications

This Monitoring and Reporting Program may be modified at the discretion of the Regional Board Executive Officer.

4. NONCOMPLIANCE

Under Section 13268 of the Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars (\$1,000.00) for each day of violation.