

**State of California  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION**

**MONITORING AND REPORTING PROGRAM NO. 9199  
(File No. 70-117)  
FOR  
TITLE 22 RECYCLED WATER**

**ISSUED TO**

**CITY OF LOS ANGELES  
(Donald C. Tillman Water Reclamation Plant)**

The City of Los Angeles (City) shall implement this monitoring and reporting program on the effective date of this Order.

**I. SUBMITTAL OF REPORTS**

1. The City shall submit the required reports, outlined in the following paragraphs, to the California Regional Water Quality Control Board, Los Angeles Region (Regional Board), and to the California Department of Health Services, Drinking Water Field Operations, Los Angeles Region (DHS). The reports shall be received at the Regional Board and the DHS on the dates indicated as follows:

- A. **Quarterly Monitoring Reports** shall be received at the Regional Board by the 15<sup>th</sup> day of the second month following the end of each quarterly monitoring period according to Table M1. The first Quarterly Monitoring Report under this program shall be received at the Regional Board and the DHS by May 15, 2007, covering the monitoring period from January 1 to March 31, 2007.

| <b>Table MM1 Quarterly Report Periods and Due Dates</b> |                           |
|---|---------------------------|
| <b>Reporting Period</b>                                 | <b>Report Due</b>         |
| January – March   | May 15 <sup>th</sup>      |
| April – June  | August 15 <sup>th</sup>   |
| July – September  | November 15 <sup>th</sup> |
| October – December                                      | February 15 <sup>th</sup> |

- B. **Annual Summary Report** shall be received at the Regional Board and the DHS by April 15 of each year. The first Annual Summary Report under this program shall be received at the Regional Board and the DHS by April 15, 2008, covering the monitoring period of year 2007.
  - C. **Updated Title 22 Engineering Report** shall be submitted to the Regional Board and the DHS by January 31, 2008.
2. All monitoring and annual summary reports must be addressed to the Regional Board, Attention: Information Technology Unit. Reference the reports to Compliance File No. CI-9199 to facilitate routing to the appropriate staff and file.

3. The monitoring data shall be submitted to the Regional Board and to the DHS on hard copy, and on either a 3 1/2" computer diskette or a CD-ROM disk. The Regional Board and to the DHS may request electronic submittal of data contained in a CD-ROM disk or other appropriate electronic medium at any time. The submittal data must be IBM compatible, preferably using Microsoft Excel software.
4. The Regional Board and the State Water Resources Control Board (State Board) are developing a database compliance monitoring management system that may require the City to submit the monitoring reports electronically, when it becomes operational. (Note that DHS requires groundwater monitoring to be submitted to DHS by the Electronic Data Transfer, which is available in the DHS' website at <http://www.dhs.ca.gov/ps/ddwem/EDT/default.htm>). The draft regulations state: "Analytical results for chemicals shall be reported directly to the Department, as follows:
  - A. Analytical results of all analyses completed in a calendar month shall be reported to the Department no later than the 15th day following the end of the second month of the designated monitoring period.
  - B. Analytical results shall be reported to the DHS electronically using the Electronic Deliverable Format as defined in The Electronic Deliverable Format (EDF) Version 1.2i Guidelines & Restrictions dated April 2001 and Data Dictionary dated April 2001."

The City should request PSCodes from the DHS so the data can be entered by the laboratories in the DHS' database.

## **II. MONITORING REQUIREMENTS**

1. Whenever possible, quarterly monitoring shall be performed during the 1st quarter (January, February, and March), the 2<sup>nd</sup> quarter (April, May, and June), the 3<sup>rd</sup> quarter (July, August, and September), and the 4<sup>th</sup> quarter (October, November, and December); and annual monitoring shall be conducted during the third quarter of each calendar year. However, if the use of recycled water does not occur during that monitoring period, the City shall collect a sample during the next reuse event. Results of quarterly and annual analyses shall be reported in the following quarterly monitoring report. If there is no use of recycled water during the reporting period, the report shall so state. Monitoring reports shall continue to be submitted to the Regional Board, regardless of whether or not there was a use of recycled water.
2. 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 City 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 Health Services Environmental Laboratory Accreditation Program (ELAP) every year or when the City changes their contract laboratory.
  - E. Analytical test methods used and the corresponding detection limits for reporting purposes (DLRs) unregulated and regulated chemicals. Please see the DHS' website at <http://www.dhs.ca.gov/ps/ddwem/chemicals/unregulated/index.htm> and <http://www.dhs.ca.gov/ps/ddwem/chemicals/DLR/dlindex.htm> for unregulated and regulated chemicals, respectively.
  - F. Quality assurance and control measures.
3. Recycled water samples 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 City 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.
4. For all bacterial analyses, sample dilutions should be performed so the range of values extends from 1 to 800. The detection methods used for each analysis shall be reported with the results of the analyses.
5. For determination of compliance with the concentration-time (CT) requirement of 450 milligram-minutes per liter at all times, the City shall obtain the following information in a 24-hour period. The CT is the product of total chlorine residual and modal contact time measured at the same time.
- A. Modal contact time under highest flow and corresponding chlorine residual at that time.
  - B. Lowest chlorine residual and corresponding modal contact time.
  - C. Highest chlorine residual and corresponding modal contact time.
  - D. Modal contact time under lowest flow and corresponding chlorine residual at that time.

CT values shall be calculated from these four sets of data and the lowest value shall be used to determine worst case CT for the period. For the purpose of this determination, modal contact time shall be derived from a predetermined plot correlating modal contact times to varying flow conditions (results of tracer studies required in Order No.R4-2007-0009, Section I.1.A.a.). The daily lowest CT value and the daily lowest modal contact time shall be included in the monitoring reports.

Should the City use another method to determine CT compliance, the alternative method shall first be approved by the California Department of Health Services (DHS) and the Regional Board.

### **III. REPORTING REQUIREMENTS**

The City shall submit all reports, shown on Section I SUBMITTAL OF REPORTS to the Regional Board and the DHS 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 water recycling requirements, 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 recycled water used. 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 recycled water and groundwater.
  - d. Records of any operational problems, plant upset and equipment breakdowns or malfunctions, and any diversion (s) of off-specification recycled water and the location(s) of final disposal.
  - 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.
- C. If the City 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 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 (recycled water and groundwater) 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 recycled water into full compliance with the requirements in this Order.
- C. The description of any changes and anticipated changes including any impacts in operation of any unit processes or facilities shall be provided.
- D. 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 City to monitor compliance with this Order, their status of certification, and provide a summary of performance.
- E. The report shall confirm operator certification and provide a list of current operating personnel, their responsibilities, and their corresponding grade of certification.
- F. The report shall also include the date of the facility's Operation and Maintenance Management Plan, the date the plan was last reviewed, and whether the plan is complete and valid for the current facilities.

## **3. Updated Title 22 Engineering Report (Report)**

- A. This Report should outline compliance with all specifications, requirements, and provisions of this accompanying Order as well as any new regulations

pertaining to recycled water that become effective after the effective date of this Order.

- B. This Report shall update all information listed in the current Title 22 Engineering Report, *San Fernando Valley Water Reclamation Project*, issued on June 1992.
- C. This Updated Title 22 Engineering Report shall be prepared under the direction of a properly qualified engineer, or geologist registered in California and experienced in the field of hydrogeology.

#### IV. RECYCLED WATER MONITORING

The sampling station shall be established where representative samples of recycled water can be obtained. For this recycling project, recycled water samples shall be obtained from the effluent channel downstream of the chlorine contact basin. Should there be any change in the sampling station, the proposed station shall be approved by the Executive Officer prior to its use. Table M2 shall constitute the Title 22 recycled water monitoring program:

| <b>Table M2 – Title 22 Recycled Water Monitoring</b> |              |                       |                                      |
|--|--------------|-----------------------|--------------------------------------|
| <b>Constituent</b>                                   | <b>Units</b> | <b>Type of Sample</b> | <b>Minimum Frequency of Analysis</b> |
| Total recycled water flow                            | MGD          | ---                   | Continuous <sup>[1]</sup>            |
| Turbidity <sup>[2]</sup>                             | NTU          | ---                   | Continuous <sup>[1]</sup>            |
| Total chlorine residual <sup>[3]</sup>               | mg/L         | ---                   | Continuous <sup>[1]</sup>            |
| Coliform <sup>[4]</sup>                              | MPN/100ml    | Grab <sup>[5]</sup>   | Daily                                |
| Settleable solids                                    | mL/L         | Grab <sup>[5]</sup>   | Daily                                |
| Suspended solids                                     | mg/L         | 24-hr comp.           | Weekly                               |

Footnote:

- [1]. For those constituents that are continuously monitored, the City shall report the monthly minimum and maximum, and daily average values.
- [2]. Turbidity shall be continuously monitored and recorded at a point after final filtration. The average value recorded each day, the amount of time that 5 NTU is exceeded, and the incident of exceeding 10 NTU, if any, shall be reported.
- [3]. Chlorine residual concentration shall be continuously monitored and recorded at a point after the final chlorine contact basins. Both the minimum and maximum values shall be reported daily.
- [4]. Samples shall be obtained subsequent to the chlorination process.
- [5]. Grab sample is an individual sample collected in a short period of time not exceeding 15 minutes. Grab samples shall be collected during normal peak loading conditions for the

parameter of interest, which may or may not be during hydraulic peaks. When an automatic composite sampler is not used, composite sampling shall be done as follows: If the duration of the discharge is equal to or less than 24 hours but greater than eight (8) hours, at least eight (8) flow-weighted samples shall be obtained during the discharge period and composited. For discharge duration of less than eight (8) hours, individual 'grab' sample may be substituted.

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## V. RECYCLED WATER USE MONITORING

The City shall submit a quarterly report, in a tabular form, on the list of users serviced during the quarter, the amount of recycled water delivered to each user, and the use of the recycled water. A summary of these data shall be included in the annual report.

## VI. GENERAL MONITORING AND REPORTING REQUIREMENTS

1. For every item where the requirements are not met, the City shall submit a statement of the actions undertaken or proposed which will bring the recycled water program into full compliance with requirements at the earliest possible time, and submit a timetable for implementation of the corrective measures.
2. 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:
  - 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,
  - C. The written authorization is submitted to the Executive Officer of this Regional Board.
3. The monitoring report shall contain the following completed declaration:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments thereto; and that, based on my inquiry of the 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."

Executed on the \_\_\_\_ day of \_\_\_\_ at \_\_\_\_\_  
\_\_\_\_\_  
Signature  
\_\_\_\_\_  
Title

4. The City 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 or the DHS at any time and shall be extended during the course of any unresolved litigation regarding the regulated activity.

5. 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.
  
6. The City 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 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.

Ordered by:



Jonathan S. Bishop  
Executive Officer

Date: January 11, 2007

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