

# CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LOS ANGELES REGION

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## MONITORING AND REPORTING PROGRAM CI. NO. 10042 FOR CITY OF MALIBU (MALIBU CIVIC CENTER WASTEWATER TREATMENT PLANT – PHASES I & II PROJECTS) (File No. 11-087)

This Monitoring and Reporting Program (MRP) No. CI 10042 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 City of Malibu (City) who discharges the tertiary-treated wastewater generated from the Malibu Civic Center Wastewater Treatment Facility (Civic Center Facility) into aquifers and/or recycles it for landscape irrigation to furnish technical or monitoring reports. The reports required herein are necessary to assure compliance with Waste Discharge Requirements (WDRs) and Water Recycling Requirements (WRRs) Order No. R4-2015-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 City shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the MRP, including electronic data format (EDF) groundwater and surface water monitoring data, injection location data, and monitoring reports. These reports shall be received by the Regional Board via the State Water Resources Control Board (State Water Board) GeoTracker database under Global ID WDR100000359 on the dates indicated as follows:
  - A. **Quarterly Monitoring Reports** shall be received by the Regional Board by the 30<sup>th</sup> day of the month following the end of each quarterly monitoring period according to Table 1. The first Quarterly Monitoring Report under this program must be received by the Regional Board by July 30, 2015.

Reporting Period	Report Due
January ~ March	April 30
April ~ June	July 30
July ~ September	October 30
October ~ December	January 30

- B. **Annual Summary Report** shall be received by the Regional Board by March 1 of each year. The first Annual Summary Report under this program must be received by the Regional Board no later than March 1, 2016.

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2. If there is no discharge and/or water recycled during any reporting period, the report shall so state. Data collected during installation of injection wells or monitoring wells shall be included in the quarterly and annual report.
3. The data shall include the well specifications, ordinances, well heads elevation to mean sea level (MSL) and the method to develop the well. The construction of wells shall follow *California Well Standards* of the California Department of Water Resources.
4. All report shall be prepared by or under the direction of a licensed engineer in the State of California or a certified hydrogeologist in the State of California. All monitoring reports must include, at minimum, the following:
  - A. Well and surface water station identification, date and time of sampling;
  - B. Sampler identification, and laboratory identification; and,
  - C. Quarterly observation of groundwater levels, recorded to 0.01 feet MSL, and flow direction.

## II. MONITORING REQUIREMENTS

1. Monitoring shall be used to determine compliance with the requirements of the Order No. R4-2015-XXXX and shall include, but not limited to, implementation and documentation of the following:
  - A. Locations of each groundwater and surface water 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 the Civic Center Facility, all groundwater monitoring wells, injection wells, and surface water monitoring stations.
  - B. Sampling protocols (specified in 40 CFR Part 136 or American Water Works Association 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. For surface water monitoring, outline the methods and procedures to be used for collecting samples; decontaminating equipment; containing, preserving, and shipping samples; and maintaining appropriate documentation. Also include the procedures for handling, storing, testing, and disposing of decontamination waters generated from the sampling events.
  - E. Laboratory or laboratories, which conducted the analyses. Include copy or copies of laboratory certifications by the Environmental Laboratory

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Accreditation Program (ELAP) of the State Water Board's Division of Drinking Water (DDW) every year or when the City changes their contract laboratory.

- F. Analytical test methods used and the corresponding Detection Limits for Purposes of Reporting (DLR) for unregulated and regulated chemicals. Please see the DDW's website at [http://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/EDT.shtml](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/EDT.shtml) for unregulated and regulated chemicals.
  - 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 United State Environmental Protection Agency (USEPA) or DDW, Regional Board and/or State Board. The City shall select the analytical methods that provide reporting detection limits (RDLs) lower than the limits prescribed in the accompanying Order No. R4-2015-XXXX.
  3. The City shall instruct its laboratories to establish calibration standards so that the RDLs (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 City use analytical data derived from extrapolation beyond the lowest point of the calibration curve.
  4. Upon request by the City, the Regional Board, in consultation with the USEPA or DDW and the State Board Quality Assurance Program, may establish RDLs, in any of the following situations:
    - 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 RDL higher than the limit specified in this Order; or,
    - C. When the City agree 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 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.
  6. For unregulated chemical analyses, the City shall select methods according to the following approach:
    - A. Use drinking water methods, if available;
    - B. Use DDW-recommended methods for unregulated chemicals, if available;

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- C. If there is no DDW-recommended drinking water method for a chemical, and more than a single USEPA-approved method is available, use the most sensitive USEPA-approved method;
  - D. If there is no USEPA-approved method for a chemical, and more than one method is available from the scientific literature and commercial laboratory, after consultation with DDW, use the most sensitive method;
  - E. If no approved method is available for a specific chemical, the City's laboratory may develop or use its own methods and should provide the analytical methods to DDW or the Regional Board for review. Those methods may be used until DDW recommended or USEPA-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.. Use this approach until the City's laboratory develops a method for the chemical in drinking water, or until a DDW-recommended or USEPA-approved drinking water method is available.
  - G. The City is required to inform the Regional Board, in event that D, E, F is occurring.
7. For constituents of emerging concerns (CECs) analyses:
- CECs (see Attachment C2) are being collected for information purposes. There are currently no standards for the constituents listed in attachment C2. The attached reporting limits shall be used for these constituents.

### III. REPORTING REQUIREMENTS

The City shall submit all reports to the Regional Board by the dates indicated in Section I. All quarterly, and annual monitoring reports shall 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. All quarterly and annual reports shall clearly list all non-compliance with WDRs/WRRs, as well as all excursions of effluent limits.

#### 1. Quarterly reports

- A. These reports shall include, at a minimum, the following information:
  - a. The volume of the effluent and the volume of treated wastewater used for injection via land disposal, landscape irrigation, and/or percolation. If no recycled water is used during the quarter, the report shall so state.
  - b. The date and time of sampling and analyses on the effluent, groundwater, and surface water.
  - c. All analytical results of samples collected during the monitoring period of the effluent, groundwater, and surface water.

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- d. Documentation of all QA/QC procedures that were followed during sampling and laboratory analyses
  - e. Records of any operational problems, plant upset and equipment breakdowns or malfunctions, and any discharge(s) used for injection via land disposal, landscape irrigation, and/or percolation.
  - f. Discussion of compliance, noncompliance, or violation of requirements.
  - f. All corrective or preventive action(s) taken or planned with schedule of implementation, if any violation occurs.
- 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 RDL must be reported “as measured” by the laboratory (i.e., the measured chemical concentration in the sample);
  - b. Sample results less than the RDL, 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 “None-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 included 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 (quality of tertiary treated effluent, groundwater, and surface water; quantity of injected water) obtained during the previous calendar year. A comparison of laboratory results against effluent limits contained in these WDR/WRRs and notations of any exceedences of limits or other requirements shall be summarized and submitted at the beginning of the report.
- 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

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treated effluent used for recycled water, into full compliance with the requirements in the accompanying Order No. R4-2015-XXXX.

- C. An in-depth discussion of the results of the final effluent monitoring, groundwater monitoring, and surface water monitoring programs conducted during the previous year includes:
  - a. Any change of receiving groundwater and surface water quality resulting from injection and use of recycled water for landscape irrigation; and,
  - b. Any change of groundwater flow pattern resulting from injection.

Temporal and spatial trends in the data shall be analyzed, with particular reference to comparisons between stations with respect to distances from the monitoring wells and comparisons to data collected during previous years. Appropriate statistical tests and indices, subject to approval by the Executive Officer, shall be calculated and included in the annual report.

- 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 the laboratories used by the City to monitor compliance with the accompanying Order, their status of certification, and provide a summary of analyses.
- F. The report shall confirm operator certification and provide a list of current operating personnel, their responsibilities, and their corresponding grade of certification.
- G. The report shall also summarize any change of the **Operation, Maintenance, and Monitoring Plan (OMM Plan)** due to the optimization of the existing Civic Center Facility operation. The summary shall discuss conformance with the Civic Center Facility's OMM Plan for operations, maintenance, and monitoring of the Civic Center Facility, and whether the OMM Plan requires revision for the current facilities.
- H. Each annual report shall summarize the groundwater flow and transport and summary of the injection operations for the project. This report shall also use the most current data for the evaluation of the transport of injected water including concerns of emerging constituents; such evaluations must include, at a minimum, the following information:
  - a. Total quantity of water injected into each major aquifer;
  - b. Estimates of the rate and path of flow of the injected water; and,

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- c. Data used as parameters to calculate the rates of groundwater flow and volume of injected water reaching Santa Monica Bay, Malibu Creek and Lagoon.

**IV. WATER QUALITY MONITORING REQUIREMENTS**

**1. Influent Monitoring**

- A. Influent monitoring is required to:
  - a. Determine compliance with WDRs/WRRs permit conditions.
  - b. Assess Civic Center Facility performance.
- B. The City shall monitor influent to the Civic Center Facility at Influent Pump Station located in the main stream of the influent channel prior to the headworks as specified in Table 2.

<b>Table 2 – Influent Monitoring</b>			
<b>Constituents</b>	<b>Units <sup>[1]</sup></b>	<b>Type of Sample</b>	<b>Minimum Frequency of Analysis</b>
Total waste flow	gpd	Recorder	Continuous <sup>[2]</sup>
Total suspended solids	mg/L	24-hour comp.	Weekly
BOD <sub>5@20</sub> <sup>o</sup> C	mg/L	24-hour comp.	Weekly

[1]. gpd: gallons per day;  
 mg/L: milligram/liter;  
 [2]. The City shall report the daily minimum, maximum, and average values.

**2. Effluent Monitoring**

- A. Effluent monitoring is required to:
  - a. Determine compliance with WDRs/WRRs permit conditions and water quality standards.
  - b. Assess Civic Center Facility performance, identify operational problems and improve Facility performance.
- B. The City shall monitor the discharge of tertiary-treated effluent at downstream of all treated effluent passing through this station, including the final disinfection process. If more than one analytical test method is listed for a given parameter, the City must select from the listed methods and corresponding Minimum Level.
- C. The following shall constitute the effluent monitoring program, specified in Table 3:

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<b>Table 3 – Effluent/Recycled Water Monitoring</b>			
<b>Constituent</b>	<b>Unit <sup>[1]</sup></b>	<b>Type of Sample <sup>[2]</sup></b>	<b>Minimum Frequency of Analysis</b>
Total Flow	gpd	Recorder	Continuous <sup>[3]</sup>
pH	pH units	Grab	Daily
BOD <sub>5@20°C</sub>	mg/L	24-hour composite	Weekly
Turbidity	NTU	Recorder	1.2 Hours <sup>[4]</sup>
Total Coliform	MPN/100mL	Grab	Daily
Fecal Coliform	MPN/100mL	Grab	Daily
Total Suspended Solids	mg/L	Grab	Weekly
Residual Chlorine	mg/L	Grab	Daily
Oil and Grease	mg/L	Grab	Monthly
Nitrate + Nitrite as Nitrogen	mg/L	Grab	Weekly
Nitrate as Nitrogen	mg/L	Grab	Weekly
Nitrite as Nitrogen	mg/L	Grab	Weekly
Ammonia Nitrogen	mg/L	Grab	Weekly
Organic Nitrogen	mg/L	Grab	Weekly
Total Nitrogen <sup>[5]</sup>	mg/L	Grab	Weekly
Total Phosphorus	mg/L	Grab	Monthly
Total Dissolved Solids	mg/L	Grab	Monthly
Sulfate	mg/L	Grab	Monthly
Chloride	mg/L	Grab	Monthly
Boron	mg/L	Grab	Monthly
MBAS <sup>[6]</sup>	mg/L	Grab	Monthly
Constituents listed in Attachments A1 to A5	various	Grab/24-hour composite	Quarterly
CECs <sup>[7]</sup> in Attachment C	various	Grab	Annually
Priority Pollutants in Attachment D	µg/L	Grab	Annually

- [1]. NTU: nephelometric turbidity unit;  
 MPN/100mL: Most Probable Number/100 milliliter
- [2]. 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

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- be substituted. 24-hour composite is for semi-volatile and volatile chemicals.
- [3]. The City shall report the daily minimum, maximum, and average values. The City shall report the estimated daily volume of wastewater used for irrigation and for spray disposal.
  - [4]. The turbidity samples must be taken at intervals of no more than 1.2 hours over a 24-hour period to determine compliance for turbidity. If the continuous turbidity meter and recorder failed, grab sampling may be substituted for a period of up to 24-hours.
  - [5]. Total nitrogen: Sum of nitrate, nitrite, organic nitrogen and ammonia (all expressed as nitrogen).
  - [6]. MBAS: Methylene Blue Active Substances
  - [7]. CECs: Constituents of Emerging Concerns. The City shall monitor the CECs in the effluent discharge. The City shall follow the requirements as discussed in the accompanying Permit Section IX.24.B. Analysis under this section is for monitoring purposes only. Analytical results obtained will not be used for compliance determination purposes, since the methods have not been incorporated into 40 CFR part 136.

D. CECs: CECs, listed in Attachment D, shall be monitored annually. The Executive Officer may add or delete chemicals from this list as new analytical methods become available and may also make revisions to approved analytical methods as needed. A revised CECs list will be made available to the City when changes occur. The City shall request (and submit a justification for) any deviation from the attached list for EO approval, if a change is required, before collecting samples.

### 3. Groundwater Monitoring

A. Groundwater Monitoring Well Specifications: Table 4 shows specifications of groundwater monitoring wells for baseline and long-term groundwater monitoring programs.

Table 4 – Specifications of Groundwater Monitoring Wells			
ID	Monitoring Well Location	Well Depth (BGS <sup>(1)</sup> )	Purpose of Monitoring Location
SMBRP-9	34°2'16.46" N; 118°41'34.90" W	45 feet	Upgradient water quality in the shallow alluvium
TY-MW-1	34°2'4.91" N; 118°41'51.03" W	41 feet	Downgradient water quality in Winter Canyon
MCWP-MW04S	34°2'7.08" N; 118°41'28.07" W	20 feet	Upgradient shallow alluvial water quality of the Malibu Colony Plaza
MCWP-MW07S	34°2'0.73" N; 118°41'40.97" W	20 feet	Downgradient shallow alluvial water quality of the Malibu Colony Plaza; adjacent to injection zone
SMBRP-12	34°1'58.25" N; 118°41'24.49" W	25 feet	Cross-gradient deep water quality
LAMW-5S	34°2'13.48" N; 118°41'56.09" W	20 feet	Upgradient water quality in Winter Canyon
MCWP-MW04D	34°02'7.00" N; 118°41'27.90" W	148 feet	Upgradient deep Civic Center Gravels water quality of injection wells

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Table 4 – Specifications of Groundwater Monitoring Wells			
ID	Monitoring Well Location	Well Depth (BGS <sup>[1]</sup> )	Purpose of Monitoring Location
MCWP-MW07D	34°2'0.70" N; 118°41'40.70" W	134 feet	Deep Civic Center Gravels water quality adjacent to injection wells W-1 and w-2
MCWP-MW09	34°1'58.26" N; 118°41'24.32" W	95 feet	Cross-gradient deep Civic Center Gravels water quality of injection wells

BGS: Below ground surface.

- B. Baseline groundwater monitoring:
- a. Baseline groundwater monitoring is required to:
    - i. Establish groundwater water quality database prior to injection via land disposal for deep aquifer (Civic Center Gravels) and landscape irrigation for shallow aquifer (Shallow Alluvium); and,
    - ii. Determine the responsibility of possible non-compliances in the future.
  - b. The City shall conduct the baseline groundwater quality monitor to collect data by June 1, 2015 and shall continue to do so prior to the injection via land disposal. Representative samples of groundwater shall be collected at nine (9) monitoring wells of SMBRP-9, TY-MW-1, MCWP-MW04S, MCWP-MW07S, SMBRP-12, LAMW-5S, MCWP-MW04D, MCWP-MW07D, and MCWP-MW09, from major aquifers, including the aquifers of Shallow Alluvium, Civic Center Gravels, and Winter Canyon Alluvium specified in Table 4.
  - c. Table 5 sets forth the minimum constituents and parameters for monitoring baseline groundwater quality.

Table 5 – Baseline Groundwater Monitoring			
Constituents	Units	Type of Sample	Minimum Frequency of Analysis <sup>[2]</sup>
Water level elevation <sup>[1]</sup>	Feet	Recorder	Annually
pH	pH units	Grab	Annually
BOD <sub>5</sub> 20 <sup>0</sup> C	mg/L	Grab	Annually
Turbidity	NTU	Grab	Annually
Total Coliform	MPN/100mL	Grab	Annually
Fecal Coliform	MPN/100mL	Grab	Annually
Total Suspended Solids	mg/L	Grab	Annually

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<b>Table 5 – Baseline Groundwater Monitoring</b>			
<b>Constituents</b>	<b>Units</b>	<b>Type of Sample</b>	<b>Minimum Frequency of Analysis<sup>[2]</sup></b>
Residual Chlorine	mg/L	Grab	Annually
Total Organic Carbon	mg/L	Grab	Annually
Oil and grease	mg/L	Grab	Annually
Nitrate + Nitrite as Nitrogen	mg/L	Grab	Annually
Nitrate as nitrogen	mg/L	Grab	Annually
Nitrite as nitrogen	mg/L	Grab	Annually
Ammonia nitrogen	mg/L	Grab	Annually
Organic Nitrogen	mg/L	Grab	Annually
Total Nitrogen	mg/L	Grab	Annually
Total Phosphorus	mg/L	Grab	Annually
Total Dissolved Solids	mg/L	Grab	Annually
Sulfate	mg/L	Grab	Annually
Chloride	mg/L	Grab	Annually
Boron	mg/L	Grab	Annually
MBAS	mg/L	Grab	Annually
Constituents listed in Attachments A1 to A5	Various	Grab	Annually
CECs in Attachment C	Various	Grab	Annually
Priority Pollutants in Attachment D	µg/L	Grab	Annually

[1]. Water level elevations must be measured to the nearest 0.01 feet, and referenced to mean sea level.

[2]. Semi-annually shall include sample collected from wet and dry season.

C. Long-Term Groundwater Monitoring after Discharge:

- a. Long-term groundwater monitoring is used to monitor any possible impact of injection via land disposal and landscape irrigation or percolation on the receiving water quality of groundwater aquifers, Santa Monica Bay, Malibu Creek and Lagoon.
- b. Long-term groundwater monitoring after discharge shall be collected the minimum constituents and parameters, specified in Table 6, for monitoring groundwater quality at monitoring wells of SMBRP-9, MCWP-MW04S, MCWP-MW07S, SMBRP-12, MCWP-MW04D, MCWP-MW07D, and MCWP-MW09 from major aquifers, including the aquifers of Shallow Alluvium, Civic Center Gravels, and Winter Canyon Alluvium.

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<b>Table 6 – Long-Term Groundwater Monitoring</b>			
<b>Constituents</b>	<b>Units</b>	<b>Type of Sample</b>	<b>Minimum Frequency of Analysis<sup>[2]</sup></b>
Water level elevation <sup>[1]</sup>	Feet	Recorder	Quarterly
pH	pH units	Grab	Quarterly
BOD <sub>5</sub> 20 <sup>o</sup> C	mg/L	Grab	Quarterly
Turbidity	NTU	Grab	Quarterly
Total Coliform	MPN/100mL	Grab	Quarterly
Fecal Coliform	MPN/100mL	Grab	Quarterly
Total Suspended Solids	mg/L	Grab	Quarterly
Residual Chlorine	mg/L	Grab	Quarterly
Total Organic Carbon	mg/L	Grab	Quarterly
Oil and grease	mg/L	Grab	Quarterly
Nitrate + Nitrite as Nitrogen	mg/L	Grab	Quarterly
Nitrate as nitrogen	mg/L	Grab	Quarterly
Nitrite as nitrogen	mg/L	Grab	Quarterly
Ammonia nitrogen	mg/L	Grab	Quarterly
Organic Nitrogen	mg/L	Grab	Quarterly
Total Nitrogen	mg/L	Grab	Quarterly
Total Phosphorus	mg/L	Grab	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly
Sulfate	mg/L	Grab	Quarterly
Chloride	mg/L	Grab	Quarterly
Boron	mg/L	Grab	Quarterly
MBAS	mg/L	Grab	Quarterly
Constituents listed in Attachments A1 to A5	Various	Grab	Annually
CECs in Attachment C	µg/L	Grab	Annually
Priority Pollutants in Attachment D	µg/L	Grab	Annually

[1]. Water level elevations must be measured to the nearest 0.01 feet, and referenced to mean sea level.

[2]. Annually shall include sample collected from wet season.

- c. If more than 10% of the permitted quarterly flow, specified in WDRs Table 8, is diverted to and discharged via the percolation ponds, the City shall collect groundwater samples at TY-MW-1 and LAMW-5S on a quarterly and annually basis as shown in MRP Table 6. If the 10% threshold is not

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exceeded, the monitoring frequency shall be adjusted to either an annual monitoring or the quarterly that the 10% was exceeded.

**4. Injection Well Monitoring**

A. Injection Well Specifications: Table 7 shows specifications of injection wells.

<b>Table 7 – Specifications of Injection Wells</b>			
<b>ID</b>	<b>Location</b>	<b>Screen Intervals (BGS)</b>	<b>Well Depth (BGS)</b>
W-1	34 <sup>0</sup> 1'59.97" N; 118 <sup>0</sup> 41'45.59" W	55 feet to 134 feet	170 feet
W-2	34 <sup>0</sup> 2'0.83" N; 118 <sup>0</sup> 41'40.09" W	55 feet to 134 feet	170 feet
W-3	34 <sup>0</sup> 2'1.34" N; 118 <sup>0</sup> 41'34.75" W	55 feet to 134 feet	170 feet

B. The City shall record the volume and injection rate in gallons per day of treated wastewater injected through W-1 to W-3.

**5. Surface Water Monitoring**

A surface water monitoring program is implemented to evaluate the quality of surface waters at near-shore ocean and the Malibu Lagoon, and any changes in quality that might result from the injection.

A. Surface Water Monitoring Stations

Table 8 specifies locations and monitoring depths of four (4) near shore and six (6) Malibu Lagoon and Creek surface water monitoring stations.

<b>Table 8 – Specifications of Surface Water Monitoring Stations</b>		
<b>ID</b>	<b>Location</b>	<b>Monitoring Depth</b>
<b>Near shore</b>		
N-001	34 <sup>0</sup> 1'56.22" N; 118 <sup>0</sup> 41'38.75" W	Ankle depth
N-002	34 <sup>0</sup> 1'55.21" N; 118 <sup>0</sup> 41'21.13" W	Ankle depth
N-003	34 <sup>0</sup> 1'54.58" N; 118 <sup>0</sup> 40'47.30" W	Ankle depth
N-004	34 <sup>0</sup> 1'47.34" N; 118 <sup>0</sup> 42'17.10" W	Ankle depth
<b>Malibu Lagoon and Creek</b>		
L-001	3402'14.27" N; 118040'59.31" W	1 foot below surface water

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<b>Table 8 – Specifications of Surface Water Monitoring Stations</b>		
<b>ID</b>	<b>Location</b>	<b>Monitoring Depth</b>
L-002	3402'11.97" N; 118041'1.51" W	1 foot below surface water
L-003	3402'6.66" N; 118040'58.52" W	1 foot below surface water
L-004	3402'1.81" N; 118040'58.55" W	1 foot below surface water
L-005	3402'0.65" N; 118040'49.29" W	1 foot below surface water
L-006	3401'58.44" N; 118041'7.10" W	1 foot below surface water

**B. Surface Water Monitoring Constituents and Frequency**

The City shall collect the minimum constituents, specified in Table 9, for monitoring surface water quality at ten (10) stations, specified in Table 8.

<b>Table 9 – Specifications of Surface Water Monitoring</b>			
<b>Constituents</b>	<b>Units</b>	<b>Type of Sample</b>	<b>Minimum Frequency of Analysis</b>
Total Coliform	MPN/100mL	Grab	Quarterly
Fecal Coliform	MPN/100mL	Grab	Quarterly
Nitrate as nitrogen	mg/L	Grab	Quarterly
Nitrite as nitrogen	mg/L	Grab	Quarterly
Ammonia nitrogen	mg/L	Grab	Quarterly
Organic Nitrogen	mg/L	Grab	Quarterly
Total Phosphorus	mg/L	Grab	Quarterly

During wet-weather event, stormwater runoff will impact surface water monitoring stations. The surface water monitoring shall be conducted no earlier than three days, since rain (0.1 inch and greater) ceases.

**VI. GENERAL MONITORING AND REPORTING REQUIREMENTS**

1. The City shall comply with all Standard Provisions (Attachment B) related to monitoring, reporting, and recordkeeping.
2. 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 treated effluent and/or treated effluent used for the recycled water program into full compliance with

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requirements at the earliest possible time, and submit a timetable for implementation of the corrective measures.

3. 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,

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 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 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.

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7. 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 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.

## **VII. WASTE HAULING REPORTING**

In the event that waste sludge, septage, 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 in the quarterly monitoring report.

## **VIII. MONITORING FREQUENCIES**

Monitoring frequencies may be adjusted to a less frequent basis or parameters dropped by the Executive Officer if the City makes a request (with justification) and the Executive Officer determines that the request is adequately supported by statistical trends in the monitoring data submitted. The City cannot make any adjustments until written approval is received from the Executive Officer.

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:

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Samuel Unger, P.E.  
Executive Officer  
Date: March 12, 2015

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