

State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
ORDER NO. 87-47-A01
(Order No. 87-47, readopted in Order No. 97-072,
and amended by Order No. R4-2025-0250)
WATER RECLAMATION REQUIREMENTS (WRRs)
FOR
JOINT OUTFALL SYSTEM (JOS)
(Long Beach Water Reclamation Plant)
(File No. 69-80)

The California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board), finds:

1. JOS (hereinafter referred to as "Permittee") operates the Long Beach Water Reclamation Plant, located at 7400 East Willow Street, Long Beach, California, with a design flow of 25 million gallons per day (mgd), and discharges recycled water to the City of Long Beach recycled water line under requirements contained in Order No. 79-131 adopted by the Los Angeles Water Board on July 23, 1979.
2. The City of Long Beach Water Department, the primary user of this recycled water, recently completed Stage 5 of their recycled water system. Stage 5 involves delivery of recycled water to six new reuse sites within the City of Long Beach and is the final stage in the City of Long Beach's master plan for the use of recycled water. Recycled water from the Long Beach Water Reclamation Plant may be used for impoundment and landscape irrigation on about 1,325 acres of public land as proposed by the City of Long Beach's master plan for use of recycled water. The City's primary uses are irrigation of parks, golf courses, athletic fields, and landscaping.
3. The treatment consists of primary sedimentation, activated sludge biological treatment with nitrification and denitrification, coagulation, secondary sedimentation, inert media filtration, chloramination (reaction between sodium hypochlorite and ammonia) for disinfection, and dechlorination. Treated wastewater discharged to Coyote Creek is dechlorinated. The sludge is piped to, and processed at, the JOS' A.K. Warren Water Resource Recovery Facility in Carson.
4. The treated wastewater may also be discharged to Coyote Creek and San Gabriel River under separate waste discharge requirements and National Pollutant Discharge Elimination System permit (NPDES Permit No. CA0054119) adopted by the Los Angeles Water Board.
5. The areas of recycled water use are located in Sections 24 and 25, T4S, R12W, SSB & M, within the Central Basin, Coastal Plain Subunit.
6. The Bellflower Aquiclude underlies the local area and separates the shallow ground water, or semi-perched aquifer where it exists, from the deeper production aquifers.

This aquiclude restricts deep percolation of recycled waters to the water supply aquifers.

7. The waters of the semi-perched aquifer are of relatively poor mineral quality and are not beneficially reused.
8. The Basin Plan designates beneficial uses for surface and groundwater; establishes narrative and numeric water quality objectives that shall be attained or maintained to protect the designated (existing and potential) beneficial uses and conform to the State's antidegradation policy; and includes implementation provisions, programs, and policies to protect all waters in the region. In addition, the Basin Plan incorporates all applicable State Water Board and Los Angeles Water Board plans and policies and other pertinent water quality policies and regulations. The Basin Plan contains water quality objectives for ground water in the Central Basin, Coastal Plain Subunit. The requirements contained in this Order, as they are met, will be in conformance with the goals of the Water Quality Control Plan.
9. Ground water in the Coastal Plain is beneficially used for municipal and domestic supply, agricultural supply and industrial service and process supply.
10. Section 13523 of the California Water Code (CWC) provides that a regional board, after consulting with and receiving the recommendations of the State Department of Health Services (now DDW) and any party who has requested in writing to be consulted, and after any necessary hearing, shall, if it determines such action to be necessary to protect public health, safety, or welfare, prescribe water recycling requirements for water which is used or proposed to be used as recycled water. Section 13523 further provides that such requirements shall include, or be in conformance with, the uniform statewide recycling criteria.
11. The use of recycled water for impoundments or for irrigation could affect public health, safety, or welfare; requirements for such uses are therefore necessary in accordance with Section 13523 of the CWC.
12. This project involves an existing facility and as such is exempt from the provisions of the California Environmental Quality Act in accordance with California Administrative Code, Title 14, Chapter 3, Section 15301.

The Los Angeles Water Board has notified the Permittee and interested agencies and persons of its intent to prescribe water reclamation requirements and has provided them with an opportunity to submit their written views and recommendations.

The Los Angeles Water Board in a public meeting heard and considered all comments pertaining to the recycling and to the tentative requirements.

IT IS HEREBY ORDERED, that the Joint Outfall System shall comply with the following:

A. Recycled Water Limitations

1. Recycled water shall be limited to disinfected tertiary recycled water only, as proposed.
2. Recycled water shall not contain constituents in excess of the following limits:

Constituent	Unit	Maximum Limitation
Total Dissolved Solids	mg/L	1,000
Chloride	mg/L	250
Sulfate	mg/L	250
Boron	mg/L	1.5

3. The pH of recycled water shall at all times be within the range 6.0 to 9.0.
4. Recycled water shall not contain trace constituents or other substances in concentrations exceeding the limits contained in the current edition of the California Department of Health Services Drinking Water Standards or in excess of action levels established by the State Department of Health Services.
5. Recycled water shall not cause the nitrogen content in the receiving ground water to exceed the objectives in the Water Quality Control Plan.
6. Recycled water, used for agricultural supply, shall not contain concentrations of chemical constituents in amounts that adversely affect such beneficial use.

B. Specifications for Use of Recycled Water

1. Recycled water used and produced in compliance with this Order shall be limited to disinfected tertiary recycled water and comply with the definition of disinfected tertiary recycled water in Title 22 of the California Code of Regulations (22 CCR) § 60301.230.
2. Recycled water may be used for the following non-potable uses if referenced in a State Water Resources Control Board (State Water Board), Division of Drinking Water (DDW)-approved Engineering Report for the facility or otherwise approved by DDW:
 - a. Surface irrigation in the following areas:
 - Food crops, including all edible root crops, where the recycled water comes into contact with the edible portion of the crop;
 - Parks and playgrounds;
 - School yards;
 - Residential and freeway landscaping;
 - Unrestricted and restricted access golf courses;
 - Cemeteries;
 - Ornamental nursery stock where the public is not restricted;
 - Landscape irrigation on site; and
 - Other allowable irrigation applications specified in 22 CCR, provided the Permittee (or its designee) submits an updated use site report and attains

approval from DDW following the submission of an engineering report prior to delivery of recycled water to the new use site or for the new use.

- b. Source of supply in a decorative fountain.
 - c. Source of supply in a restricted recreational impoundment.
 - d. Source of supply in a nonrestricted recreational impoundment.
 - e. Source of supply in a landscape impoundment.
3. Recycled water shall be produced, managed, distributed, stored, and used in conformance with the applicable regulations contained in 22 CCR and the *Cross-Connection Control Policy Handbook*.
 4. The recycled water producer or distributor shall collectively provide all users recycled water meeting the minimum requirements for disinfected tertiary recycled water that meets the standards for recycled water, as defined in 22 CCR § 60301.230 and filtered wastewater, as defined in 22 CCR § 60301.320. The distributor may be a recycled water wholesaler, retail water supplier, or retailer as defined in CWC section 13575.
 5. Recycled water shall not be used for direct human consumption or for the processing of food or drink intended for human consumption.
 6. Recycled water shall not be directly used for uses other than those enumerated above unless the Permittee (or its designee) submits an updated use site report and Engineering Report approved by DDW to the Los Angeles Water Board, and obtains approval from the Executive Officer to use recycled water for the new use(s).
 7. Recycled water uses shall meet the requirements specified in the most recent version of the *Water Quality Control Policy for Recycled Water* issued by the State Water Resources Control Board.
 8. Recycled water shall not be allowed to escape from the use area(s) as surface flow that would either pond and/or enter surface waters, unless the runoff does not pose a public health threat and is authorized by the regulatory agency through an NPDES permit, waste discharge requirements (WDRs), or a waiver of WDRs.
 9. Recycled water shall be applied at a rate and volume that does not exceed vegetative demand and soil saturation capacity. Special precautions must be taken to prevent clogging of spray nozzles, to prevent overwatering, and to exclude the production of runoff. Pipelines shall be maintained to prevent leaks.
 10. Recycled water use and monitoring shall be consistent with any applicable salt and nutrient management plans for the groundwater basin/sub-basin.

C. General Requirements

1. Bypass, discharge, or delivery to the use area of inadequately treated recycled water or sewage at any time is prohibited.

2. No recycled water shall be applied to irrigation areas during periods when soils are saturated such as when there is rainfall and/or runoff.
3. Standby emergency power facilities and/or sufficient capacity shall be provided for recycled water storage during rainfall or in the event of plant upsets or outages, and at times when spray irrigation cannot be practiced.
4. Recycled water use or disposal shall not result in earth movement in geologically unstable areas.
5. Adequate facilities shall be provided to protect the sewage treatment and recycling facilities from damage by storm flows and runoff.
6. Adequate freeboard shall be maintained in recycled water storage ponds to ensure that direct rainfall will not cause overtopping.
7. Neither treatment of waste nor any recycled water use or disposal shall cause pollution or nuisance.
8. Water recycling and reuse or disposal shall not result in problems due to breeding of mosquitoes, gnats, midges, or other pests.
9. Recycled water use or disposal shall not impact tastes, odors, color, foaming, or other objectionable characteristics to receiving ground waters.
10. Recycled water use or disposal which could affect receiving ground waters shall not contain any substance in concentrations toxic to human, animal, or plant life.
11. Odors of sewage origin shall not cause a nuisance.
12. Water that does not meet disinfected tertiary recycled water requirements in accordance with 22 CCR (i.e. off-spec water) shall either be returned to the headworks for treatment, discharged to surface water in compliance with an NPDES permit, or conveyed via the sanitary sewer system to downstream treatment plants that have the capacity to receive such flows during operational challenges.

D. Provisions

1. A copy of these requirements shall be maintained at the recycling facility so as to be available at all times to operation personnel.
2. In the event of any change in name, ownership, or control of these waste treatment and recycling facilities, the Permittee shall notify the Los Angeles Water Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Los Angeles Water Board.
3. **Changes to Recycled Water System or Production.** For any material change or proposed change in character, location, or volume of recycled water, or its uses, the Permittee (or its designee) shall submit at least 120 days prior to the proposed change an engineering report or addendum to the existing engineering report prepared by a qualified engineer licensed in California to the Los Angeles

Water Board and DDW (pursuant to California Water Code (CWC) § 13522.5 and 22 CCR § 60323) for approval. The engineering report shall follow DDW's *Guidelines for the Preparation of an Engineering Report for the Production, Distribution and Use of Recycled Water* and also be with the California Plumbing Code and the American Water Works Association's (AWWA's) *Guidelines for the Distribution of Non-Potable Water*. If there is any conflict between any of these documents, the more stringent requirement shall apply. After DDW approves the engineering report or addendum, the Permittee (or its designee) shall submit an application to the Los Angeles Water Board to incorporate any new requirements into the WDRs/WRRs necessary to meet the regulations in 22 CCR and any additional conditions imposed by DDW. After the recycled water project is complete, the Permittee (or its designee) shall submit as-built drawings to DDW that show the final locations of the potable water, sewer, and recycled water pipelines, and indicate adequate separation between the recycled water and potable domestic water lines, both of which shall also be marked clearly or labeled using separate colors for identification.

4. The Permittee (or its designee) shall file with the Los Angeles Water Board technical reports on self-monitoring work performed according to the detailed specifications contained in the Monitoring and Reporting Programs, as directed by the Executive Officer.
5. The Permittee (or its designee) shall report any noncompliance which may endanger health or the environment. Any such information shall be provided verbally or electronically to the Manager of the Watershed Regulatory Section within 24 hours from the time the Permittee (or its designee) becomes aware of the circumstances. A written submission shall also be provided within five working days of the time the Permittee (or its designee) becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and the time of occurrence, and if the noncompliance has not been corrected; the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The following occurrence(s) shall also be reported to the Executive Officer within 24 hours:
 - a. Any bypass from any portion of the treatment facility;
 - b. Any discharge of treated or untreated wastewater resulting from sewer line breaks, obstruction, surcharge or any other circumstances; and
 - c. Any treatment plant upset which causes the recycled water limitation of this order to be exceeded (CWC sections 13263 and 13267).
6. The Permittee shall notify the Los Angeles Water Board and the State Water Resources Control Board, Division of Drinking Water staff by telephone or by electronic means immediately of any confirmed coliform counts that may cause the recycled water to not meet the definition of disinfected tertiary recycled water in 22 CCR section 60301.230. This information shall be confirmed and summarized in the following monitoring report; in addition, for any actual coliform

limit violations that occurred, the report shall also include the actual coliform counts that occurred, reasons for the high coliform counts, the steps being taken to correct the problem (including dates thereof), and the steps being taken to prevent a recurrence.

7. These requirements do not exempt the Permittee from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this recycling facility, and they leave unaffected any further restraint on the use of recycled water at this site which may be contained on other statutes or required by other agencies.
8. The Permittee shall be responsible for ensuring that all users of recycled water comply with the specifications and requirements for such use.
9. This Order does not alleviate the responsibility of the Permittee to obtain other necessary local, state, and federal permits to construct facilities necessary for compliance with this Order; nor does this Order prevent imposition of additional standards, requirements, or conditions by any other regulatory agency. Expansion of this facility from its current capacity shall be contingent upon issuance of all necessary permits, including a conditional use permit.
10. Operators of this publicly owned wastewater treatment plant shall possess a certificate of appropriate grade in accordance with 23 CCR 3680. The State Water Board may accept experience in lieu of qualification training. In lieu of a certified wastewater treatment plant operator, the State Water Board may approve use of a water treatment plant operator of appropriate grade certified by the Drinking Water Operator Certification Program, which was transferred from the State Department of Public Health to the State Water Board in 2014 (23 CCR 3670.1).
11. The Permittee shall provide to each user of recycled water from the Long Beach Water Reclamation Plant a copy of these requirements, to be maintained at the user's facility as to be available at all times to operating personnel.
12. **Extensions or Expansions of the Recycled Water System.** For any extension or expansion of the recycled water system, including the addition of new use areas that previously did not receive recycled water from the Permittee, the Permittee (or its designee) shall submit a report detailing the extension or an expansion plan for review by DDW (or its delegated local health agency) and the Los Angeles Water Board. Within 30 days of DDW's approval of the report or expansion plan, the Permittee (or its designee) shall submit DDW's conditional approval letter to the Los Angeles Water Board. The Permittee shall not deliver recycled water to the new use areas until the Executive Officer of the Los Angeles Water Board ensures the requirements in these WRRs are protective of human health and the groundwater basin and approves the distribution of the recycled water to the new use areas. Following construction, and prior to delivery of recycled water, as-built drawings shall be submitted to DDW or its delegated local health agency prior to the use of recycled water at the new use areas.

13. The Permittee (or its designee) shall submit to the Los Angeles Water Board within 60 days of the adoption of this Order, a fail-safe procedure for approval by the Executive Officer.
14. The Permittee shall file with the Los Angeles Water Board a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge (CWC § 13260(c)).
15. The Permittee shall allow the Los Angeles Water Board, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the Permittee's processes where a regulated facility or activity is located or conducted, or where records shall be kept under the conditions of this Order;
 - b. Have access to and copy at reasonable times, any records that shall be kept under the conditions of this Order;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order;
 - d. Sample or monitor at reasonable times, for the purposes of ensuring compliance with this Order, or as otherwise authorized by the California Water Code, any substances or parameters at any location (CWC section 13267); and
 - e. Except for material determined to be confidential in accordance with applicable law, all reports prepared in accordance with the terms of this Order shall be available for public inspection at the Los Angeles Water Board office. Data on waste discharges, water quality, geology, and hydrogeology shall not be considered confidential.
16. This Order includes the attached Monitoring and Reporting Program No. CI-6184. If there is any conflict between provisions stated in the Monitoring and Reporting Program and the Standard Provisions, those provisions stated in the Monitoring and Reporting Program prevail.

E. Use Area Requirements

A "Use Area" is an area of recycled water use with defined boundaries, which may contain one or more facilities (Use Sites) where recycled water is used. An approved Title 22 Engineering Report that details the use areas, its purpose, and addresses protection of public health is required prior to recycled water use. The Permittee shall ensure all users of recycled water comply with the following:

1. No irrigation with disinfected tertiary recycled water shall take place within 50 feet of any domestic water supply well unless all of the following conditions have been met:
 - a. A geological investigation demonstrates that an aquitard exists at the well

- between the uppermost aquifer being drawn from and the ground surface.
- b. The well contains an annular seal that extends from the surface into the aquitard.
 - c. The well is housed to prevent any recycled water spray from coming into contact with the wellhead facilities.
 - d. The ground surface immediately around the wellhead is contoured to allow surface water to drain away from the well.
 - e. The owner of the well approves of the elimination of the buffer zone requirement.
2. No impoundment of disinfected tertiary recycled water shall occur within 100 feet of any domestic water supply well.
 3. Any use of recycled water shall comply with the following:
 - a. Any irrigation runoff shall be confined to the recycled water use area, unless the runoff does not pose a public health threat and is authorized under an NPDES permit or other orders issued by the State or Los Angeles Water Board.
 - b. Spray, mist, or runoff shall not enter dwellings, designated outdoor eating areas, or food handling facilities.
 - c. Drinking water fountains shall be protected against contact with recycled water spray, mist, or runoff.
 4. All use areas where recycled water is used that are accessible to the public shall be posted with signs that are visible to the public, in a size no less than 4 inches high by 8 inches wide, that include the following wording: "RECYCLED WATER – DO NOT DRINK." Each sign shall display an international symbol similar to that shown in figure 60310-A of 22 CCR § 60310. DDW may accept alternative signage and wording, or an educational program, provided the applicant demonstrates to DDW that the alternative approach will assure an equivalent degree of public notification.
 5. Except as allowed under Section 3.2.2., Subdivision I of the *Cross-Connection Control Policy Handbook*, no physical connection shall be made or allowed to exist between any recycled water system and any separate system conveying potable water.
 6. Except for use in a cemetery that complies with the requirements of section 8118 of the Health and Safety Code, the portions of the recycled water piping system that are in areas subject to access by the general public shall not include any hose bibs. Only quick couplers that differ from those used on the potable water system shall be used on the portions of the recycled water piping system in areas subject to public access.
 7. Whenever a cooling system uses recycled water in conjunction with an air conditioning facility and utilizes a cooling tower or otherwise creates a mist

- that could contact employees or members of the public, the cooling system shall comply with the following:
- a. A drift eliminator shall be used whenever the cooling system is in operation.
 - b. Chlorine or another biocide shall be used to treat the cooling system recirculating water to minimize the growth of *Legionella* and other microorganisms.
8. Recycled water shall be applied at agronomic rates, considering soil, climate, and nutrient demand. Special precautions must be taken to prevent clogging of spray nozzles, prevent overwatering, and to minimize the production of runoff. Pipelines shall be maintained to prevent leakage.
 9. Recycled water used for landscape or crop irrigation shall be limited to periods of time when the public is not present.
 10. Incidental runoff from landscape irrigation shall be controlled through the following practices:
 - a. Implementation of an operations and management plan that may apply to multiple sites and provides for detection of leaks, (for example, from broken sprinkler heads), and correction either within 72 hours of learning of the runoff, or prior to the release of 1,000 gallons, whichever occurs first,
 - b. Proper design and aim of sprinkler heads,
 - c. Refraining from application during precipitation events, and
 - d. Management of any ponds containing recycled water such that no discharge occurs unless the discharge is otherwise regulated pursuant to an NPDES permit.
 11. All recycled water use areas shall be inspected periodically in accordance with the requirements of the Monitoring and Reporting Program.
 12. Supervisors shall be appointed for the recycled water use areas and their staff shall be trained on the hazards of working with recycled water and periodically retrained.
 13. The Permittee (or its designee) shall maintain User Agreements and Ordinances with the potential agricultural, industrial, and recreational users of recycled water. Copies of existing User Agreements and Ordinances shall be provided to the Los Angeles Water Board and DDW upon request.
 14. All back-up/auxiliary potable supplies shall discharge through approved air gaps or swivel-ell connections with approved backflow prevention on the potable supply line. Back-up/auxiliary supply piping plans shall be submitted and reviewed by DDW and/or its delegated local agency. A certified tester shall test all backflow devices annually. Air gaps shall be at least twice the pipe diameter and be located above ground. Swivel-ell connections shall be

controlled by the domestic water supplier. The use site agreements shall include conditions that clarify the control and operation of swivel-ell connection.

15. All recycled water pipelines and valves shall be installed with purple identification tape or purple polyethylene vinyl wraps according to the AWWA California-Nevada Section guidelines. Unless otherwise approved by DDW, adequate separation of at least 4-foot horizontal and 1-foot vertical separation shall be provided between recycled water lines and domestic potable water lines. This condition applies to all new installations.

16. Plans and maps showing domestic water lines and recycled water lines at each use site shall be maintained. The lines shall be marked clearly and labeled as domestic water lines and recycled water lines. Shut-down tests may be needed to demonstrate that cross-connections do not exist.

I, Susana Arredondo, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on April 27, 1987, as amended by the Los Angeles Water Board on October 23, 2025. This Order becomes effective January 1, 2026.

for Susana Arredondo, Executive Officer

Attachment A. Monitoring and Reporting Program (MRP) (CI-6184)

This Monitoring and Reporting Program is issued by the Los Angeles Water Quality Control Board (Los Angeles Water Board) pursuant to California Water Code (CWC) section 13267(b)(1), which authorizes the Los Angeles Water Board to require the submittal of technical and monitoring reports. The reports required by this MRP are necessary to ensure compliance with Water Reclamation Requirements (WRRs). The Permittee shall implement this MRP on the effective date of this Order. Failure to comply with this MRP could result in the imposition of monetary civil liability pursuant to Division 7 of the California Water Code and other applicable laws.

1. General Monitoring and Reporting Requirements

- 1.1.** The Permittee shall monitor disinfected tertiary recycled water produced at the treatment facility in accordance with the methods and frequency outlined in this MRP.
- 1.2.** Monitoring reports shall include, but are not limited to, the following:
 - Analytical results.
 - Location of each sampling station where representative samples are obtained.
 - Analytical test methods used and the corresponding minimum reporting levels (MRLs).
 - Name(s) of the laboratory that conducted the analyses.
 - A summary of quality assurance and control (QA/QC) measures, including documentation of chain of custody.
 - Applicable recycled water limitation or water quality objective.
 - A summary of noncompliance during the monitoring period.
- 1.3.** The Permittee shall have written sampling protocols in place. The sampling protocols shall also include the procedures for handling, storing, testing, and disposing of purge and decontamination waters generated from the sampling events when applicable.
- 1.4.** The Permittee shall notify the Los Angeles Water Board and DDW by electronic means (losangeles@waterboards.ca.gov, DDWRegion4@waterboards.ca.gov, and DDWrecycledwater@Waterboards.ca.gov) within 24 hours of knowledge of any violations of this Order that may endanger human health or the environment. Written confirmation shall be submitted within 5 working days from the date of notification. The report shall include, but shall not be limited to the following information:
 - The nature and extent of the violation;

- The date and time when the violation started; when compliance was achieved; and, when distribution of recycled water was suspended and restored, as applicable;
 - The duration of the violation;
 - The cause(s) of the violation;
 - Any corrective and/or remedial actions that have been taken and/or will be taken with a time schedule for implementation to prevent future violations; and
 - Any impact of the violation.
- 1.5.** Samples shall be analyzed using analytical methods described in section 136 of title 40 of the Code of Federal Regulations (40 CFR § 136); or where no methods are specified for a given pollutant, by methods approved by DDW, the Los Angeles Water Board and/or the State Water Board, the Permittee shall select the analytical methods that provide MRLs lower than the limits prescribed in this Order or as low as possible that will provide reliable data.
- 1.6.** The Permittee shall instruct its laboratories to establish calibration standards so that the MRLs (or equivalent if there is a different treatment of samples relative to calibration standards) are the lowest calibration standard. At no time shall the analytical data be derived from extrapolation beyond the lowest point of the calibration curve.
- 1.7.** For regulated constituents, the laboratory conducting the analyses shall be certified by ELAP or approved by DDW or the Los Angeles Water Board.
- 1.8.** Samples shall be analyzed within allowable holding time limits as specified in 40 CFR § 136. All QA/QC analyses shall be conducted on the same dates the samples are analyzed. The Permittee shall retain the QA/QC documentation in its files for three years and make available for inspection and/or submit them when requested by the Los Angeles Water Board or DDW. Proper chain of custody procedures shall be followed, and a copy of this documentation shall be submitted with the quarterly report.
- 1.9.** Upon request by the Permittee, the Los Angeles Water Board, in consultation with DDW and the State Water Board Quality Assurance Program, may establish MRLs, in any of the following situations:
- 1.9.1.** When the pollutant has no established method under 40 CFR § 136;
 - 1.9.2.** When the method under 40 CFR § 136 for the pollutant has an MRL higher than the limit specified in this Order; or
 - 1.9.3.** When the Permittee agrees to use a test method that is more sensitive than those specified in 40 CFR § 136.
- 1.10.** Each monitoring report shall include a separate section titled "Summary of Noncompliance" which discusses the compliance record and corrective actions taken or planned that may be needed to bring the discharge into full

compliance water reclamation requirements. This section shall clearly list all noncompliance with water reclamation requirements as well as all excursions of the recycled water limitations.

- 1.11.** For bacterial analyses, sample dilutions shall be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 mL for total coliform). The detection methods used for each analysis shall be reported with the results of the analyses.

2. Monitoring Requirements

Recycled water monitoring is required to determine compliance with the permit conditions: (1) identify operational problems and aid in improving facility performance, and (2) provide information on wastewater characteristics and flows for use in interpreting water quality and biological data.

2.1. Recycled Water Monitoring Location

The Permittee shall establish a monitoring location to demonstrate compliance with the recycled water discharge limitations and other requirements in this Order. The recycled water monitoring location shall be located downstream of any in-plant return flows and after the final disinfection process, where representative samples of the effluent can be obtained. Should the need for a change in the sampling station(s) arise in the future, the Permittee shall seek approval of the proposed station by the Executive Officer prior to use.

2.2. Recycled Water Monitoring

2.2.1. The Permittee shall monitor the disinfected tertiary recycled water used for non-potable use at the recycled water monitoring location. The parameters to be monitored and monitoring frequencies are listed in Table A-1.

2.2.2. The following shall constitute the recycled water monitoring program:

Table A-1. Recycled Water Monitoring

Constituent	Units	Type of Sample	Minimum Frequency of Analysis	Notes
Total recycled water flow	MGD	Recorder	Continuous	a
Total recycled water volume	Million gallons	Calculated	Monthly	--
Recycled water volume to each end user	Gallons	Calculated	Monthly	--

Constituent	Units	Type of Sample	Minimum Frequency of Analysis	Notes
pH	Standard units	Grab	Daily	c
Turbidity	NTU	Recorder	Continuous	a
Total coliform	MPN/100 mL or CFU/100 mL	Grab	Daily	b
Total chlorine residual	mg/L	Recorder	Continuous	a
Total chlorine residual	mg/L	Grab	Daily	c
Total Dissolved Solids	mg/L	24-Hour Composite	Monthly	--
Sulfate	mg/L	24-Hour Composite	Monthly	--
Chloride	mg/L	24-Hour Composite	Monthly	--
Boron	mg/L	24-Hour Composite	Monthly	--
Nitrate + Nitrite (as N)	mg/L	24-Hour Composite	Monthly	--
Nitrate (as N)	mg/L	24-Hour Composite	Monthly	--
Nitrite (as N)	mg/L	24-Hour Composite	Monthly	--

Footnotes for Table A-1

- a. Where continuous monitoring of a constituent is required, the following shall be reported:
 - i. Total recycled water flow and total chlorine residual – monthly minimum and maximum, and daily average values.
 - ii. Turbidity - Shall be monitored after filtration but prior to disinfection. Maximum daily value, total amount of time each day the turbidity

exceeded 5 NTU, and a flow proportioned average daily value. A grab sample can be used to determine compliance with the 10 NTU limit. A flow-weighted 24-hour composite sample may be used in place of the recorder to determine the flow-proportioned average daily value.

- b. Samples shall be collected seven days a week unless otherwise specified. The results for total coliform in CFU/100 mL (membrane filtration method) and MPN/100 mL (multiple tube fermentation method) shall be considered functionally equivalent in terms of compliance with 22 CCR 60301.230(b).
- c. Total residual chlorine and pH shall be monitored Monday through Friday and excluding holidays.

End of Footnotes for Table A-1

2.3. Groundwater Monitoring

This Order permits the use of recycled water for non-potable uses, which meet the site-specific conditions for exemption from groundwater monitoring in the Recycled Water Policy and there are no other unique site conditions that present an unacceptable risk to groundwater; therefore, this Order does not require groundwater monitoring. The Permittee plans to use recycled water for irrigation and is required to apply recycled water at reasonable agronomic rates and shall consider soil, climate, and nutrient demand.

2.4. Use Area Monitoring

The Permittee is responsible for ensuring use area data is collected and submitted in the annual report. The following shall be recorded for each use with additional reporting for use areas as appropriate. The frequency of use area inspections shall be based on the complexity and risk of each use area. Use areas may be aggregated to combine acreage for calculation or observation purposes. Use area monitoring shall include the following:

Table A-2. Use Area Monitoring

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Recycled Water User	--	--	--	Annually
Average Monthly Recycled Water Flow	gallons per day (gpd)	Meter	Monthly	Annually
Acreage Applied	Acres	Calculated	--	Annually
Application Rate	inches/acre /year	Calculated	--	Annually

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Soil Saturation and Ponding	--	Observation	Quarterly	Annually
Nuisance Odors/Vectors	--	Observation	Quarterly	Annually
Discharge Off-Site	--	Observation	Quarterly	Annually
Notification Signs (note a)	--	Observation	Quarterly	Annually

Footnotes for Table A-2

- a. Notification signs shall be consistent with the requirements of 22 CCR § 60310(g).

End of Footnotes for table A-2

2.5. Storage Pond System Monitoring

In some cases, recycled water storage ponds may be used to store recycled water when it is not needed. These monitoring requirements apply only to storage ponds permitted through this Order. Storage ponds covered by existing waste discharge requirements (WDRs) and/or an NPDES order shall continue to be monitored in accordance with that order. Storage pond(s) containing recycled water shall be monitored for the following:

Table A-3. Storage Pond System Monitoring

Parameter	Units	Sample Type	Sample Frequency	Reporting Frequency
Freeboard	0.1 feet	Measurement	Quarterly	Annually
Odors	--	Observation	Quarterly	Annually
Berm condition	--	Observation	Quarterly	Annually

2.6. Dual-Plumbed System Monitoring

For dual-plumbed systems, DDW and/or its delegated local agency shall be consulted for additional reporting, design, and operation requirements in accordance with the requirements of 22 CCR §§ 60313 through 60316. The potential for cross-connections and backflow prevention devices shall be monitored as listed below, or more frequently if specified by DDW.

Table A-4. Dual-Plumbed System Monitoring

Requirement	Frequency	Reporting Frequency	Notes
Cross connection testing	Every four years	Within 30 days/annually	a & b
Backflow incident	Continuous	Within 24 hours from discovery	--
Backflow prevention device testing and maintenance	Annually	Annually	c

Footnotes for Table A-4

- a. Testing shall be performed at least every 4 years, or more frequently at the discretion of DDW.
- b. Cross connection testing shall be reported pursuant to 22 CCR § 60314. The report shall be submitted to DDW within 30 days and included in the annual report to the Los Angeles Water Board.
- c. Backflow prevention device maintenance shall be tested by a qualified person as described in the *Cross-Connection Control Policy Handbook*.

End of Footnotes for Table A-4

3. Cooling/Industrial/Other Uses of Recycled Water

If recycled water is used for industrial, commercial cooling, or air conditioning in which a mist is generated, the cooling system shall comply with California Code of Regulations, Title 22, section 60306(c).

4. Reporting Requirements

The Permittee shall submit the required reports, outlined in this section, to the State Water Boards's GeoTracker database by the specified dates.

4.1. General Reporting Requirements

For reporting compliance with numerical limitations, analytical data shall be reported using the following reporting protocols:

- 4.1.1.** Sample results greater than or equal to the MRL must be reported "as measured" by the laboratory (i.e., the measured chemical concentration in the sample).
- 4.1.2.** Sample results less than the MRL, but greater than or equal to the laboratory's Method Detection Limit (MDL), shall be reported as "Detected, but Not Quantified," "DNQ." The laboratory shall write the estimated chemical concentration of the sample next to "DNQ."

- 4.1.3.** Sample results less than the laboratory's MDL shall be reported as "Not Detected", or "ND."
- 4.1.4.** If the Permittee 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 recycled water, receiving water, etc., limitations.
- 4.1.5.** The Los Angeles Water Board or DDW may request supporting documentation, such as daily logs of operations.
- 4.1.6.** Monitoring requirements listed in this MRP may duplicate existing requirements under other orders including WDRs and NPDES permits. If the permittee monitors a parameter at the recycled water monitoring location under a separate permit, the results from those analyses may be reported for compliance with this Order if the appropriate analytical method is used.
- 4.1.7.** The Permittee shall electronically submit all reports and monitoring data required under these WRRs to the State Water Resource Control Board's GeoTracker database. All reports shall reference Compliance File No. 69-80 and shall be uploaded under Global ID WDR100001744. Compliance monitoring shall be submitted separately from other technical reports. All submittals shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the Order in searchable Portable Document Format (PDF) and all water quality data in Electronic Deliverable Format (EDF). If any files exceed 10 megabytes, the report shall be uploaded in multiple parts and upon request, the data shall be provided in excel format. Information regarding the GeoTracker database (http://www.waterboards.ca.gov/ust/electronic_submittal/index.shtml) is provided on the State Water Board's website.
- 4.1.8.** The Permittee shall submit to the Los Angeles Water 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.

4.2. Quarterly Monitoring Reports

4.2.1. Quarterly monitoring reports shall include, at a minimum, the following information:

- a. Summary of operational concerns that address changes in reporting conditions involving recycled water since the last report.
- b. The volume of all recycled water and the volume of recycled water used for each use for the reporting period. If no recycled water is used during the quarter, the report shall so state.
- c. The date and time of sampling and analyses.
- d. All analytical results of recycled water samples collected during the monitoring period.
- e. The USEPA analytical method used, the MDL, and the reporting detection limit (RDL) for each constituent analyzed.
- f. The applicable DDW conditions or permit limitations.
- g. QA/QC documents shall be submitted with each quarterly report. This documentation includes lab reports, results for duplicate samples, results for blank samples, and chain of custody forms.
- h. The name(s) of the laboratory that conducted the analyses.
- i. Records of any operational problems, plant upset(s), equipment breakdowns or malfunctions, and any diversion(s) of off-specification recycled water and the location(s) of final disposal.
- j. Discussion of compliance, noncompliance, or violation of requirements.
- k. All corrective or preventive action(s) taken or planned with a schedule of implementation, if any.

4.3. Annual Reports

4.3.1. Annual monitoring reports shall include a minimum of the following:

- a. Tabular and graphical summaries of the monitoring data obtained during the previous calendar year.
- b. A table listing the users and use areas serviced during the year, the amount of recycled water delivered to and used by each user (reported in both gallons and in acre-feet), and the use of the recycled water. Newly permitted recycled water users shall be identified. When applicable, a supplement to the Title 22 Engineering Report and the State Water Board approval letter supporting those additions shall be included.
- c. A summary of compliance status with the applicable monitoring requirements during the previous calendar year.

- d. For any non-compliance during the previous calendar year, a description of:
 - The date, duration, and nature of the violation.
 - A summary of any corrective actions and/or suspensions of subsurface application of recycled municipal wastewater resulting from a violation.
 - If uncorrected, a schedule for and summary of all remedial actions.
- e. A description of any changes and anticipated changes, including any impacts to the operation of any unit processes or facilities shall be provided.
- f. A list of the analytical methods used for each test and associated laboratory quality assurance/quality control (QA/QC) procedures shall be included in the annual report. The annual report shall identify the laboratories used by the Permittee to monitor compliance with this Order, and include a copy of laboratory certifications issued by the California State Water Resources Control Board, Division of Drinking Water's (DDW's) Environmental Laboratory Accreditation Program (ELAP).
- g. A list of current operating personnel, their responsibilities, and their corresponding grade and date of certification.
- h. The date of the Facility's Operation and Maintenance (O&M) Manual, the date the plan was last reviewed, and whether the plan is complete and valid for the current facilities.
- i. A summary table of all inspections and enforcement activities initiated by the Permittee. Include a discussion of compliance and corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into compliance. Copies of documentation of any enforcement actions taken by the Permittee shall be provided.
- j. An evaluation of the performance of the recycled water system for the treatment facility including a discussion of capacity issues, system problems, and a forecast of the flows anticipated for the following year.

4.3.2. Annual Volumetric Reporting

All volumetric data measured monthly shall be reported annually as acre-feet (af) to the GeoTracker database under "Other Tools: submit Annual Volumetric Water Data." Monthly volume of influent, recycled

water produced and distributed for beneficial use in compliance with Title 22 in each of the use categories below:

- a. Agricultural Irrigation: pasture and crop irrigation.
- b. Landscape irrigation: irrigation of parks, greenbelts, playgrounds, school yards, athletic fields, cemeteries, residential landscaping, freeway landscaping, highway landscaping, and street landscaping.
- c. Golf course irrigation: irrigation of golf courses, including water used to maintain aesthetic impoundments within golf courses.
- d. Commercial application: commercial facilities, business use (such as laundries or office buildings), car washes, retail nurseries, and appurtenant landscaping that is not separately metered.
- e. Industrial application: manufacturing facilities, cooling towers, process water, and appurtenant landscaping that is not separately metered.
- f. Geothermal energy production: augmentation of geothermal fields.
- g. Other non-potable uses, including but not limited to, dust control, flushing sewers, fire protection, fill stations, snow making, and dual-plumbed systems.

5. Report Submittal Dates

Monitoring periods and reporting for all required monitoring shall be completed according to Table A-5:

Table A-5. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Start Date	Monitoring Period	Self-Monitoring Report (SMR) Due Date
Continuous	Permit effective date	All	Submit with quarterly report
Daily	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with quarterly report
Weekly	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	Submit with quarterly report
Monthly	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1st day of calendar month through last day of calendar month	Submit with quarterly report
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 15 August 15 November 15 February 15
Annually	January 1 following (or on) permit effective date	January 1 through December 31	April 30
Annual volumetric reporting	January 1 following (or on) permit effective date	January 1 through December 31	April 30

6. Signatory Requirements

All reports required by this Order and other information requested by the Los Angeles Water Board shall be signed by the Administrator principal owner or

operator, or by a duly authorized representative of that person. A duly authorized representative is one whose:

- 6.1.** Authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as general manager in a partnership, manager, operator, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position), and
- 6.2.** Written authorization is submitted to the Los Angeles Water Board. If an authorization becomes no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements above must be submitted to the Los Angeles Water Board prior to or together with any reports, information, or applications to be signed by an authorized representative.

7. Certification

All reports signed by a duly authorized representative shall contain the following certification:

"I certify under penalty of law that this document and all attachments are 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 managed 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 fine and imprisonment for knowing violations."

Should the responsible reporting party discover that it failed to submit any relevant facts or that it submitted incorrect information in any report, it shall promptly submit the missing or correct information.