

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

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ORDER NO. R4-2023-0357
(FILE NO. 23-104)

**WASTE DISCHARGE REQUIREMENTS AND
WATER RECLAMATION REQUIREMENTS
FOR THE CITY OF LOS ANGELES BUREAU OF SANITATION AND
THE LOS ANGELES DEPARTMENT OF WATER AND POWER
HYPERION ADVANCED WATER PURIFICATION FACILITY**

The following Permittees are subject to Waste Discharge Requirements (WDRs) and Water Reclamation Requirements (WRRs) set forth in this Order:

Table 1. Permittee Information

| | |
|-------------------------|---|
| Permittee | City of Los Angeles Bureau of Sanitation (LASAN) Los Angeles Department of Water and Power (LADWP) |
| Name of Facility | Hyperion Advanced Water Purification Facility (Facility or HAWPF) |
| Facility Address | 12000 Vista del Mar Boulevard Playa del Rey, CA 90293 Los Angeles County |

Table 2. Administrative Information

| | |
|---|------------------|
| This Order was adopted and shall become effective on: | October 19, 2023 |
|---|------------------|

I, Susana Arredondo, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board), on the date indicated above.

Susana Arredondo, Executive Officer

TABLE OF CONTENTS

1. Background Information 4
 1.1. Permittees 4
 1.2. Hyperion Water Reclamation Plant (HWRP)..... 4
2. Recycled Water Distribution System 8
3. HAWPF Advanced-treated Recycled Water Quality 9
4. Groundwater Basin..... 9
5. Purpose of Order..... 10
6. Regulation of recycled water 10
7. Other applicable plans, policies and authorities 13
 7.1. The Basin Plan 13
 7.2. Safe Drinking Water Act 14
 7.3. Porter-Cologne Water Quality Control Act 14
 7.4. Antidegradation Policy 15
 7.5. California Environmental Quality Act (CEQA) and Notification 22
 7.6. Environmental Justice and Advancing Racial Equity 22
 7.7. Climate Change Effects Vulnerability Assessment and Mitigation Plan..... 23
8. Influent Specifications 24
9. Recycled Water Treatment Specifications..... 24
10. Recycled Water Discharge Limitations..... 24
11. General Requirements 27
12. Specifications for Recycled Water..... 28
13. Use Area Requirements 30
14. Specifications and Requirements for Dual-PlumBed Systems 33
15. DDW Specifications and Requirements 34
16. Provisions..... 35
17. Reopener 37
18. Enforcement..... 38

TABLE OF TABLES

Table 1. Permittee Information 1
Table 2. Administrative Information..... 1
Table 3. Advanced-Treated Recycled Water Uses 8
Table 4. Beneficial Uses of Groundwater..... 14
Table 5. Groundwater Quality Objectives for Salts..... 14

Table 6. Recycled Water Limitations 25

TABLE OF ATTACHMENTS

ATTACHMENT A – DEFINITIONS.....A-1
ATTACHMENT B – PROCESS FLOW DIAGRAM.....B-1
ATTACHMENT C – RECYCLED WATER DISTRIBUTION AREA..... C-1
ATTACHMENT D – STANDARD PROVISIONS D-1
ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP) CI-10735.E-1
ATTACHMENT F – DDW CONDITIONAL ACCEPTANCE LETTER.....F-1

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

1. BACKGROUND INFORMATION

1.1. Permittees

The City of Los Angeles Bureau of Sanitation (LASAN) is constructing the Hyperion Advanced Water Purification Facility (HAWPF, or Facility) located at the Hyperion Water Reclamation Plant (HWRP) at 12000 Vista del Mar Boulevard, Playa del Rey, California. Several agencies are involved in managing the recycled water produced at the HAWPF.

The roles and responsibilities of each agency involved in the management of recycled water from the HAWPF are determined through interagency agreements, but are generally described below:

- LASAN is the producer and an end user of HAWPF recycled water and is responsible for the design, construction, operation, and maintenance of the HAWPF and all associated appurtenances (distribution line, storage tanks, pump station, etc.) located within HWRP.
- Los Angeles Department of Water and Power (LADWP) is the purveyor and distributor of recycled water and is responsible for the design, construction, operation, and maintenance of the recycled water distribution pipeline used to convey recycled water produced by HAWPF from the HWRP site to the point of connection with the Los Angeles International Airport (LAX) pipeline. LADWP has the authority to implement and enforce the rules and regulations for the use of recycled water by its customers.
- Los Angeles World Airports (LAWA) is an end user of the HAWPF recycled water and is responsible for the design, construction, operation, and maintenance of the recycled water distribution pipelines from the connection point with LADWP's recycled water pipeline to the various end users at LAX.

Since LASAN and LADWP are involved in the production and distribution of recycled water from the HAWPF, both agencies are included in these WDRs/WRRs as co-permittees. All references to Permittees in these WDRs/WRRs refer to both LASAN and LADWP.

1.2. Hyperion Water Reclamation Plant (HWRP)

The HWRP is a wastewater treatment plant owned and operated by LASAN. The HWRP is part of a joint outfall system which includes HWRP, the wastewater collection system, and three upstream water reclamation plants (Donald C. Tillman WRP, Los Angeles-Glendale WRP, and Burbank WRP). The HWRP service area covers 600 square miles and includes 6,100 miles of public sewers, 24 pump stations, 18 miles of force mains, and serves 4 million residents and several cities and agencies under contractual agreements. Approximately 85% of HWRP's influent flow consists of residential, commercial, and industrial

wastewater from the City of Los Angeles; the remaining 15% comes from the contract cities and agencies.

The HWRP is a full secondary wastewater treatment plant designed to treat a maximum daily dry weather flow of 450 million gallons per day (mgd) and a peak wet weather flow of 850 mgd. The treatment process at the HWRP consists of preliminary treatment (bar screens, grit chamber), primary treatment (coagulation, flocculation, primary sedimentation), secondary treatment (activated sludge and clarification), and solids handling. The secondary-treated effluent from HWRP is discharged to the Santa Monica Bay and is regulated under National Pollutant Discharge Elimination System (NPDES) Permit No. CA0109991.

1.3. Hyperion Advanced Water Purification Facility

The HAWPF will have the capacity to treat up to 2 mgd of primary-treated wastewater from the HWRP to produce up to 1.5 mgd of advanced-treated recycled water (recycled water). The process flow diagram is depicted in Attachment B. The HAWPF treatment process will consist of fine screens, membrane bioreactors (MBR), reverse osmosis (RO), and an ultraviolet (UV) disinfection/advanced oxidation process (UV/AOP), and post-treatment stabilization. The HAWPF will also include multiple pump stations, a chemical storage facility, a 125,000-gallon product water tank, and a distribution network. During normal operation, 100% of the recycled water will be beneficially reused for non-potable applications at LAX and within HWRP.

Preliminary Treatment – After primary treatment at the HWRP, the primary effluent is conveyed to the Intermediate Pump Station East and West (IPS-E & IPS-W), a portion of which will be conveyed to the HAWPF for advanced treatment. A set of two pumps will be installed on the operating floor of each side of the IPS influent channel. Each pair of pumps will be capable of drawing water from the respective primary effluent channel. Lines from IPS-E and IPS-W channels will each be equipped with a flowmeter and conductivity and ammonia probes. Fine screens will be provided upstream of the MBR tanks to remove particulate material to avoid damaging the membranes. A horizontal-packaged drum screen system with a sluiceway for screening disposal will be used to control odors. The screenings will be periodically dislodged from the screens and conveyed to the waste return pump station and back to the HWRP IPS afterbay.

MBR Process - The MBR system will consist of two parallel biological nutrient removal tanks and three parallel membrane tanks. The MBR process will consist of biological treatment utilizing anoxic, aerobic, and deoxygenation tanks, followed by submerged membrane ultrafiltration. The MBR process will remove carbonaceous biochemical oxygen demand, nitrogen through nitrification and denitrification, and microbial solids removal through membrane separation. The biological treatment tanks will consist of two baffled anoxic zones followed by two aerobic zones. A deoxygenation zone will be included upstream of the anoxic zones so that residual dissolved oxygen from the membrane tanks will be consumed biologically before returning to the anoxic zones. Membrane

separation to remove microbial solids will consist of three parallel covered membrane tanks, membranes, and MBR auxiliary equipment.

RO Process - RO removes large molecular weight dissolved organic and inorganic compounds and pathogens by forcing MBR effluent through a semipermeable membrane under a higher pressure than the osmotic pressure of the solution. The HAWPF RO system will consist of an RO feed tank, feed pumps, pretreatment (chloramine injection, sulfuric acid and antiscalant addition), cartridge filters, two RO trains, and RO membrane cleaning and flushing. There will be two RO trains, each with a design capacity of 0.75 mgd, which will operate continuously at a constant flux. Each RO train will have two stages designed to achieve a recovery of up to 85% and to produce 0.75 mgd of RO permeate. RO feed pumps will pump MBR effluent stored in the RO feed tank through cartridge filters and into the RO membranes. The RO concentrated stream will be conveyed back to the HWRP IPS afterbay. Permeate from the RO membranes will flow to the UV/AOP treatment process. Chloramine will be injected after the RO feed tank to prevent biological fouling of the RO membranes. Sulfuric acid and antiscalant will be injected after the RO feed tank to control mineral scaling of the RO membranes. Cartridge filters will be provided upstream of the RO membranes to remove particulate matter. Chemical cleaning and removal of particles, mineral scale, and biological film from the RO membrane will be performed to avoid head loss and the resulting increase in energy use.

UV/AOP - The primary functions of UV/AOP include pathogen inactivation and destruction and removal of trace organic compounds. The UV/AOP process will provide additional treatment to control taste and odor compounds if needed. Chloramine will be dosed upstream of the UV reactors (two on duty and one standby) to generate hydroxyl radicals to eliminate the need for an additional chemical onsite and to provide a chlorine residual to achieve additional disinfection in the effluent pipeline. The UV system will use low-pressure high-output lamps with an emissions wavelength peak at about 254 nanometers (nm). For non-potable water reuse applications using RO permeate, the California State Water Resources Control Board (State Water Board) Division of Drinking Water (DDW) requires a UV dose of 50 millijoules per square centimeter (mJ/cm^2) under conditions with fouled lamp sleeves and aged UV lamps. This will provide 5-log removal of poliovirus, which is the California virus reduction requirement for non-potable water reuse. Considering potential future application of the HAWPF product for potable reuse, the UV dose planned for the HAWPF will be scalable so that it can meet at least the non-potable reuse set point of 50 mJ/cm^2 but also achieve potable reuse requirements (not less than 800 mJ/cm^2).

Post-treatment Stabilization - Post-treatment stabilization includes calcite contactors, which will be located upstream of the product water pump station and will be used to adjust pH, add alkalinity and hardness, and stabilize the water quality to prevent adverse effects within the distribution system. Calcite and sodium hydroxide will be used for adjustment of pH, alkalinity, and hardness. Sodium hypochlorite and liquid ammonium sulfate will be added post-stabilization

to provide a 2 milligrams per liter (mg/L) chloramine residual in the product water tank and the distribution piping.

Odor Control - Odor from three foul air streams (fine screens, biological nutrient removal basins, and MBR tanks) will be captured, combined, and conveyed to a single odor control unit consisting of a single-bed carbon adsorber, which will remove hydrogen sulfide and a variety of organic sulfides that are commonly emitted from primary effluent screens and the biological nutrient removal and MBR processes.

Product Recycled Water Delivery - HAWPF recycled water will be pumped to the product water tank for storage and equalization. The product water tank will be a 125,000-gallon cast-in-place concrete tank that will store the equivalent of one production train at 0.75 mgd for four hours. The product water export pump station will pump the recycled water into the water distribution network for export to LAX. Vertical turbine pumps installed on the deck of the product water tank will pump product water to LAX, the HWRP industrial water wet well, HWRP Technical Supporting Facility (TSF), and other HWRP internal uses. Three pumps will be provided, each rated at 0.75 mgd and designed to meet the required head at the LAX connection point on Imperial Highway. LADWP is entitled to receive up to 0.75 mgd of recycled water for distribution to LAX. Excess recycled product water not used by LAX will be diverted to supplement HWRP's industrial water supply. A potable backup supplemental water supply will be provided to meet the peak demands of end users in excess of produced recycled water or provide a backup supply if there are interruptions in the production of recycled water. If HAWPF is unable to produce and deliver recycled water (due to off-spec product water, power outage, etc.), product water will be shut down or directed to the HWRP IPS and potable water will be delivered to the product water tank to ensure that the delivery of water is not interrupted. Los Angeles World Airports (LAWA), the governing authority that owns and operates the LAX, also plans to install a backup storage tank in the event of a long-term HAWPF recycled water outage. The connection between LADWP and the potable backup line has several protections in place to prevent cross-connection, including two reduced-pressure backflow prevention assemblies installed in series at the connection point with the LADWP recycled water pipeline 100 feet west of Gate A on the HWRP property boundary and an air gap in the HAWPF Product Water Tank.

Waste Stream - The waste streams generated from the HAWPF will be routed to the waste return pump station, which will collect waste discharges if equipment fails or if water quality requirements are not achieved. The waste return pump station will pump all combined waste discharges back to the afterbay of the IPS for additional treatment at the HWRP. Waste discharges include MBR waste activated sludge, brine reject from RO, chemical wastes, off-spec product water, and overflows. The chemical wastes include waste from the membrane RO cleaning, wash down, and spillage or leaks within the chemical containment area. The waste streams from drains, screenings, overflows, and neutralization

that require disposal will be discharged back to the IPS effluent channel with proper care to avoid recirculation. Waste streams generated at or after the RO feed tank will be routed to the waste return pump station and an air gap will prevent cross-connection and backflow. These waste streams include overflow and/or off-spec water from the RO feed tank, RO permeate, UV/AOP effluent, and product water tank and wastes from cleaning and flushing operations.

2. RECYCLED WATER DISTRIBUTION SYSTEM

The Permittees will treat primary effluent from HWRP at the HAWPF to generate advanced treated recycled water. The HAWPF will provide up to 0.75 mgd of recycled water to LADWP for distribution to LAX. Recycled water will be conveyed to LAX’s Central Utility Plant, where it will be used for cooling and toilet flushing at Midfield Satellite Concourse and Bradley West Terminals and at future terminals and buildings retrofitted for dual plumbing. The Permittees also expect to use 0.75 mgd of recycled water for industrial and other non-potable uses at HWRP. Recycled water produced in excess of LAX’s fluctuating demand will be diverted to the HWRP industrial water wet well. HWRP industrial processes (boilers) that require high quality source water currently use potable water. The HAWPF will produce enough recycled water to replace HWRP’s industrial water demand for boiler feedwater, odor scrubbing, toilet flushing, landscape irrigation, and other industrial uses within HWRP.

Table 3 below lists the expected uses of recycled water from the HAWPF. Prior to delivering water for any of these uses, the Permittees shall update their Title 22 Engineering Report, as required in section 12.14 below, to include designs for these uses, submit DDW’s conditional approval of the Title 22 Engineering Report to the Los Angeles Water Board, and receive approval from the Los Angeles Water Board to deliver the recycled water for the new uses.

Table 3. Advanced-Treated Recycled Water Uses

| Recycled water use | Recycled water user | Location |
|---|----------------------------|--|
| Industrial boiler feedwater | LASAN, LAWA | HWRP, LAX |
| Sewer flushing | LASAN | HWRP |
| Toilet flushing | LASAN, LAWA | HWRP, LAX Bradley Terminal and Midfield Satellite Concourse Terminal |
| Irrigation | LASAN | HWRP |
| Pump seals, centrifuge seal, polymer dilution | LASAN | HWRP |

| Recycled water use | Recycled water user | Location |
|---|--|---------------------------|
| Street sweeping, dust control | City of Los Angeles Bureau of Street Services, Bureau of Engineering, City of Los Angeles-authorized private contractors | -- |
| Vehicle and equipment washing, airplane water cannon salute | LAWA | -- |
| Firefighting | City of Los Angeles Fire Department | -- |
| Cooling towers makeup water | LAWA | LAX Central Utility Plant |

3. HAWPF ADVANCED-TREATED RECYCLED WATER QUALITY

- 3.1. The treatment process at the HAWPF will produce recycled water that consists of disinfected advanced-treated effluent.
- 3.2. The level of treatment provided to the primary effluent at the HAWPF will produce advanced-treated recycled water that will meet disinfected tertiary recycled water standards [Title 22 of the California Code of Regulations (22 CCR), § 60301.230] for non-potable uses.
- 3.3. The turbidity of the recycled water produced at the HAWPF will not exceed 0.2 nephelometric turbidity unit (NTU) more than 5 percent of the time within a 24-hour period and 0.5 NTU at any time (22 CCR, § 60301.320(b)).
- 3.4. The HAWPF UV/AOP disinfection process will maintain a minimum dose of 50 millijoules per square centimeter (mJ/cm²) at all times to achieve total coliform concentration of <2.2 most probable number (MPN)/100 milliliter (mL) and 5-log virus removal.

4. GROUNDWATER BASIN

- 4.1. Recycled water used for irrigation at HWRP may percolate into the Coastal Plain of Los Angeles West Coast groundwater basin (West Coast Basin). The West Coast Basin is bounded by the Newport-Inglewood Uplift on the northeast, by the Santa Monica Basin on the north, and by the Pacific Ocean, Palos Verdes Hills, and the Los Angeles-Orange County line on the southwest and south. In the West Coast Basin, aquifers are generally confined, and natural replenishment is dominated by subsurface inflows. Groundwater pumping constitutes the major outflow from the basin and the Silverado Aquifer is the most productive aquifer in the basin. Overall, production wells in the basin yield good quality groundwater. Localized areas of marginal to poor water quality exist, primarily at the basin margins and in the shallower and deeper aquifers impacted by seawater

intrusion. Recycled water will be stored in product water tanks prior to delivery to use sites at LAX and HWRP, and therefore the storage of recycled water will not impact groundwater. The only potential percolation into groundwater may occur during irrigation on-site at HWRP and during irrigation, recycled water will be applied at agronomic rates. Since the soil, climate, and plant demands will be considered when applying recycled water to land, a negligible amount of recycled water is expected to pass below plants' root zone and will therefore have a minimal impact on the groundwater quality.

5. PURPOSE OF ORDER

- 5.1. On April 4, 2019, LASAN submitted to the Los Angeles Water Board and DDW a Title 22 Engineering Report for the HAWPF, which was conditionally accepted by DDW on April 8, 2019, and approved by the Los Angeles Water Board on April 23, 2019. On March 15, 2021, LASAN submitted a revised Title 22 Engineering Report for the HAWPF to incorporate design changes. After several iterations of comments and revisions, LASAN submitted a final Title 22 Engineering Report for the HAWPF on October 23, 2021, which was conditionally accepted by DDW on October 25, 2021, and was accepted by the Los Angeles Water Board on October 28, 2021.
- 5.2. On September 21, 2022, LASAN submitted a notice of intent (NOI) to enroll in the State Water Board Order WQ 2016-0068-DDW (*Water Reclamation Requirements for Recycled Water Use*) for the HAWPF. The Los Angeles Water Board issued an incomplete NOI letter on November 9, 2022, and received the updated NOI from LASAN on December 30, 2022. After reviewing all the information submitted by LASAN, the Los Angeles Water Board has determined that the HAWPF cannot be enrolled in order WQ 2016-0068-DDW because the general order does not regulate the treatment of wastewater (see section 25 of order WQ 2016-0068-DDW). Since the HAWPF is a separate wastewater treatment plant from the HWRP, it needs an individual order to regulate the treatment of wastewater and operations of the Facility. On February 24, 2023, the Los Angeles Water Board issued a response letter to the NOI and requested that LASAN complete and submit Form 200 to apply for an individual permit for the HAWPF. On March 15, 2023, LASAN submitted the completed Form 200, which combined with the NOI and other supporting information, serves as the Report of Waste Discharge (ROWD) required for application for an individual permit. The application was deemed complete by the Los Angeles Water Board on May 15, 2023. A site visit was conducted on August 9, 2023 to observe the operations and collect additional data for developing permit limitations and requirements for the waste discharge.

6. REGULATION OF RECYCLED WATER

- 6.1. The State Water Board, including DDW, and the regional water boards have authority to oversee recycled water use. DDW is the agency with the primary responsibility for establishing water recycling criteria under 22 CCR to protect public health. The State Water Board and the regional water boards are

responsible for issuing WDRs and WRRs for water that is used or proposed to be used as recycled water.

- 6.2. On January 6, 1977, the State Water Board adopted Resolution No. 77-1, *Policy with Respect to Water Reclamation in California*, which includes principles that encourage and recommend funding for water recycling and its use in water-short areas of the state. On September 26, 1988, the Los Angeles Water Board adopted Resolution No. 88-012, which encourages the beneficial use of recycled wastewater and supports water recycling projects.
- 6.3. The State Water Board adopted the Recycled Water Policy (State Water Board Resolution No. 2009-0011) on February 3, 2009, and amended the Policy on January 22, 2013 (State Water Board Resolution No. 2013-0003). The Recycled Water Policy was further amended and adopted on December 11, 2018 (State Water Board Resolution No. 2018-0057) by the State Water Board and approved by the Office of Administrative Law (OAL) on April 08, 2019. In part, the purpose of the Recycled Water Policy is to protect groundwater resources and to increase the beneficial use of recycled water from municipal wastewater sources in a manner consistent with state and federal water quality laws and regulations. This Order includes requirements consistent with the Recycled Water Policy.
- 6.4. In section 4 of the amended Recycled Water Policy, two primary agencies are described with jurisdiction over the use and regulation of recycled water including the State and regional water boards. The State Water Board:
 - establishes general policies governing the permitting of recycled water projects,
 - develops uniform water recycling criteria appropriate to particular uses of water and processes,
 - approves wastewater change petitions filed by wastewater dischargers for recycled water projects that have the potential to decrease flow in any portion of a watercourse such as a river or stream,
 - adopts statewide orders for the permitting of recycled water projects, reviews and approves Title 22 engineering reports for recycled water use,
 - and allocates and disperses funding for recycled water projects consistent with its roles of protecting water quality, public health, and sustaining water supplies.The State Water Board also exercises general oversight of recycled water projects, including review of regional water board permitting practices. The regional water boards issue permits that include requirements needed to protect water quality, human health, and the environment consistent with the State and Regional Water Quality Control Plans, policies, and applicable law. The regional water boards also exercise their authority to encourage the use of recycled water.
- 6.5. CWC section 13523(a) provides that a regional water board, after consulting with and receiving recommendations from DDW or its delegated local health agency, and after any necessary hearing, shall, if it determines such action to be

necessary to protect the health, safety, or welfare of the public, prescribe WRRs for water that is used or proposed to be used as recycled water. CWC section 13523 further provides that, at a minimum, the WRRs shall include, or be in conformance with, the statewide water recycling criteria established by DDW pursuant to CWC section 13521.

- 6.6. CWC section 13523.5 states that a regional water board may not deny issuance of WRRs to a project that violates only a salinity standard in a basin plan. This provision does not apply to WDRs. WDRs for projects that recycle water may contain effluent and other limitations on discharges of salts, as necessary to meet water quality objectives, comply with the Antidegradation Policy, or otherwise protect beneficial uses. This is particularly relevant here, where a protected beneficial use is Agricultural Supply, which is sensitive to discharges of salts.
- 6.7. Pursuant to CWC section 13523, the Los Angeles Water Board has consulted with DDW regarding the proposed recycling project and has incorporated their recommendations into this Order. Final as-built plans and final DDW approvals are required prior to commencing delivery of recycled water for reuse.
- 6.8. Section 7.4 of the Recycled Water Policy states that site-specific groundwater monitoring shall not be required for irrigation projects where recycled water is applied at rates that minimize percolation of recycled water below the plants' root zone and account for the nutrient levels in the recycled water and nutrient demand by plants when applying fertilizers. The Recycled Water Policy also includes exceptions to this exemption from groundwater monitoring including when a regional water board determines there are unique site-specific conditions or such project-specific monitoring is required under the accepted Salt and Nutrient Management Plan (SNMP), applicable basin plans, or other water board program such as the Irrigated Lands Program. Unique site-specific conditions include but are not limited to recycled water that is proposed to be used for irrigation over high transmissivity soils over a shallow (5 feet or less) high quality groundwater aquifer or is proposed to be stored in unlined ponds where the regional water board determines that it will result in an unacceptable threat to groundwater quality. This Order is being issued without site-specific groundwater monitoring since the irrigation permitted under this Order requires the recycled water to be applied at rates that minimize percolation below the plants' root zone. The exceptions to the exemption do not apply because there are no site-specific conditions that may result in an unacceptable threat to groundwater quality when recycled water is used in compliance with this Order.
- 6.9. It is the intent of the Recycled Water Policy for salts and nutrients to be addressed regionally rather than imposing requirements solely on individual recycled water projects. Section 6.1.2 of the Recycled Water Policy states, "Salts and nutrients from all sources must be managed on a basin-wide or watershed-wide basis in a manner that ensures attainment of water quality objectives and protection of beneficial uses. The most effective way to address salt and nutrient loading is typically through the development of regional or subregional salt and

nutrient management plans rather than imposing requirements solely on individual recycled water projects or other individual sources of salts and nutrients.”

- 6.10. A goal of the Recycled Water Policy is to increase the beneficial use of recycled water from municipal wastewater sources in a manner consistent with state and federal water quality laws and regulations. The Recycled Water Policy directs the regional water boards to collaborate with generators of municipal wastewater and interested parties in the development of SNMPs to manage loadings of salts and nutrients to groundwater basins in a manner that is protective of beneficial uses, thereby supporting the sustainable use of local waters.

In accordance with the Recycled Water Policy, a Salt and Nutrient Management Plan (2015 SNMP) has been prepared for the Central Basin and West Coast Basin. On February 12, 2015, the Los Angeles Water Board adopted Resolution No. R15-001, which amended the *Water Quality Control Plan: Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) to incorporate groundwater quality management measures for salts and nutrients in the Central Basin and West Coast Basin. Although the SNMP considers both the Central and West Coast Basin, only the West Coast Basin is applicable to this project. An overview of the SNMP is included in section 7.4 below on antidegradation.

7. OTHER APPLICABLE PLANS, POLICIES AND AUTHORITIES

7.1. The Basin Plan

- 7.1.1. 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.
- 7.1.2. The Basin Plan incorporates the primary maximum contaminant levels (MCLs) found in the CCR by reference. This incorporation is prospective, including future changes to the incorporated provisions as the changes take effect. Groundwater designated for use as domestic or municipal supply shall not contain concentrations of chemical constituents and radionuclides greater than the MCLs. The Basin Plan also specifies that groundwaters shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.
- 7.1.3. The Basin Plan contains Water Quality Objectives (WQOs) for groundwater in the West Coast Basin. The beneficial uses of the receiving groundwater basin are as follows:

Table 4. Beneficial Uses of Groundwater

| Receiving Water Name | Existing Beneficial Uses |
|---|--|
| West Coast Basin - Underlying El Segundo, Seaward of Barrier | Agricultural supply (AGR), industrial process supply (PROC), industrial service supply (IND) |
| West Coast Basin - Underlying Ports of Los Angeles & Long Beach | AGR, IND, PROC |
| Remainder of West Coast Basin | AGR, IND, Municipal and domestic supply (MUN), PROC |

The limitations contained in this Order are intended to protect these uses and maintain water quality in these groundwater basins.

7.1.4. The Basin Plan also includes WQOs for nitrogen because nitrate levels can impact human health. To protect the groundwater from increased concentrations of nitrogen, this Order includes final effluent limitations for nitrate, nitrite, and the sum of nitrate and nitrite based on the Basin Plan objectives.

7.1.5. The Basin Plan water quality objectives for salts in the West Coast Basin are:

Table 5. Groundwater Quality Objectives for Salts

| Basin | Department of Water Resources (DWR) Basin No. | Total Dissolved Solid (TDS) (mg/L) | Sulfate (mg/L) | Chloride (mg/L) | Boron (mg/L) |
|------------------|---|------------------------------------|----------------|-----------------|--------------|
| West Coast Basin | 4-11.03 | 800 | 250 | 250 | 1.5 |

Section 11 of this Order prescribes recycled water discharge limitations equivalent to these groundwater quality objectives for TDS, sulfate, chloride, and boron to ensure protection of the beneficial uses of the West Coast Basin.

7.2. Safe Drinking Water Act

Pursuant to CWC section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by ensuring that the discharge will not impact the MUN beneficial use by including effluent limitations for salts and nutrients and by including requirements that minimize runoff and percolation of irrigation water into the groundwater basin consistent with the Recycled Water Policy.

7.3. Porter-Cologne Water Quality Control Act

7.3.1. The use of advanced-treated recycled water for the uses described in this Order could affect public health, safety, or welfare; therefore, requirements for such uses are necessary in accordance with CWC section 13523.

- 7.3.2. CWC section 13263 requires that the Los Angeles Water Board prescribe requirements as to the nature of any discharge to waters of the State, implementing any relevant water quality control plan and taking into consideration beneficial uses, WQOs, and the need to prevent nuisance.
- 7.3.3. Pursuant to CWC section 13263(g), discharges of waste into waters of the state are privileges, not rights. Nothing in this Order creates a vested right to continue the discharge. CWC section 13263 authorizes the Los Angeles Water Board to issue waste discharge requirements that implement any relevant water quality control plan.
- 7.3.4. CWC section 13267 authorizes the Los Angeles Water Board to require technical and monitoring reports. The attached monitoring and reporting program (MRP) establishes monitoring and reporting requirements to implement federal and state requirements.
- 7.3.5. The need for technical and monitoring reports required by this Order, including the MRP, are based on the Report of Waste Discharge (ROWD) and Engineering Report; the recommendations from DDW; and other information in the Los Angeles Water Board's files for the Facility. The technical and monitoring reports are necessary to ensure compliance with this Order. The burden, including costs, of providing the technical reports required by this Order bears a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. Specifically, the required monitoring will confirm that the operations of the HAWPF meets the parameters of this Order and complies with the Basin Plan, thus protecting human health and the environment.
- 7.3.6. Pursuant to CWC section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Water Board in accordance with CCR, title 23, sections 2050-2068. The State Water Board must receive the petition by 5:00 p.m., 30 days after adoption of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or State holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. [Copies of the law and regulations applicable to filing petitions](http://waterboards.ca.gov/public_notices/petitions/water_quality) (http://waterboards.ca.gov/public_notices/petitions/water_quality) may be found on the State Water Boards' website.
- 7.3.7. The Los Angeles Water Board has notified the Permittees, interested agencies, and persons of its intent to issue this Order for the production and use of recycled water and has provided them with an opportunity to submit written comments. The Los Angeles Water Board, in a public meeting, heard and considered all comments pertaining to this Order. (CWC section 13263.)

7.4. Antidegradation Policy

- 7.4.1. On October 28, 1968, the State Water Board adopted Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters*

in California (Resolution 68-16), establishing an Antidegradation Policy for the State Water Board and Regional Water Boards. Resolution 68-16 requires the Los Angeles Water Board, in regulating discharge of waste, to maintain high quality waters of the State until it is demonstrated that any change in quality (1) will be consistent with maximum benefit to the people of the State, (2) will not unreasonably affect beneficial uses, and (3) will not result in water quality less than that prescribed in the Los Angeles Water Board's policies. Resolution 68-16 requires the discharge be regulated to meet best practicable treatment or control to assure that pollution or nuisance will not occur and the highest water quality consistent with the maximum benefit to the people of the State be maintained. The Los Angeles Water Board's Basin Plan incorporates, by reference, the state antidegradation policy. This Order ensures that the discharge complies with the Antidegradation Policy because the recycled water will not unreasonably affect beneficial uses of the West Coast Basin and will not result in water quality less than prescribed in Los Angeles Water Board policies because it includes recycled water limitations for salts and nutrients equivalent to the groundwater quality objectives. This Order also requires recycled water to be applied to land at agronomic rates, further limiting the amount of recycled water that percolates into the West Coast Basin.

- 7.4.2. Section 7.2.2 of the Recycled Water Policy requires that, "for non-potable recycled water projects ineligible or inappropriate for enrollment under statewide water reclamation requirements, project proponents must submit an antidegradation analysis to the Los Angeles Water Board with the report of waste discharge to demonstrate compliance with the Antidegradation Policy." LASAN submitted a compliant Antidegradation Analysis with the Title 22 Engineering Report on March 15, 2021 and the Los Angeles Water Board requested revisions to the analysis on April 23, 2021. LASAN submitted a revised version of the Antidegradation Analysis with the revised Title 22 Engineering Report on October 23, 2021 and the analysis adequately evaluates the potential impacts of the proposed activities associated with non-potable uses of the recycled water in compliance with the Antidegradation Policy.
- 7.4.3. This Order regulates discharges to the West Coast Groundwater Basin and allows recycled water to be applied to land for landscape irrigation at HWRP. To the extent use of recycled water for non-potable uses may result in the discharge to the West Coast Basin, this Order authorizes limited degradation consistent with the Antidegradation Policy as described in the findings below. The analysis is based on the information provided in the Antidegradation analysis dated October 23, 2021. An SNMP has been developed for the Central and West Coast Groundwater Basin and the Los Angeles Water Board adopted Resolution No. R15-001, which amended the Basin Plan to incorporate groundwater quality

management measures for salts and nutrients in the Central Basin and West Coast Basin.

7.4.4. The 2015 SNMP analyzed existing and predicted future concentrations of TDS, chloride, and nitrate (as N), constituents that are representative of salts and nutrients. The SNMP analysis (2007-2012) found that average TDS (1,424 mg/L) and chloride (660 mg/L) concentrations in the West Coast Basin exceed WQOs of 800 mg/L and 250 mg/L, respectively, due to historical seawater intrusion. Accordingly, there is currently no available assimilative capacity for TDS and chloride in the West Coast Basin, but this Order requires the recycled water to meet the groundwater quality objectives, the quality of water from the HAWPF is projected to be well below the groundwater quality objectives, and this order requires best practicable treatment and control to limit the amount of recycled water that may percolate into the groundwater basin as a result of irrigation. Since irrigation with recycled water reduces the amount of potable water used for irrigation, any degradation from chloride and TDS from the limited percolation that may occur from irrigation is consistent with the maximum benefit to the people of the State due to the limited potable water supply. The projected TDS and chloride concentrations of the recycled water that will be produced at HAWPF are far below WQOs - 100 mg/L and 6 mg/L, respectively. Therefore, the proposed project is expected to improve groundwater quality with respect to TDS and chloride if recycled water used for irrigation makes its way past the root zone. Average nitrate (0.04 mg/L) levels in the West Coast Basin are well below the MCL (10 mg/L), so there is available assimilative capacity for nitrate (9.96 mg/L). The SNMP estimated the impact of future irrigation projects on groundwater quality from 2010 to 2025 (i.e., increased recycled water for irrigation with nitrate concentration at 10 mg/L) which showed that recycled water irrigation is a small component of nitrate loading and that these future projects will not use more than 10% of the available assimilative capacity. The projected nitrate concentration of the HAWPF recycled water is <1.5 mg/L. At this level, the impact of the proposed project on nitrate concentrations is not expected to cause any degradation to the groundwater basin if recycled water makes its way past the root zone.

The 2015 SNMP did not use sulfate, boron, and nitrite to represent the quality of the groundwater basin. These constituents are not known contaminants in the Central Basin and West Coast Basin. According to the *Annual Regional Groundwater Monitoring Report Water Year 2019-2020* for the Central and West Coast Basins prepared by Water Replenishment District of Southern California (WRD), the average sulfate (88.3 mg/L), boron (0.83 mg/L), and nitrite [non-detect (ND) <0.8 mg/L] concentrations in the West Coast Basin do not exceed their corresponding water quality objectives of 250 mg/L for sulfate, 1.5 mg/L for boron, and 1 mg/L for nitrite, respectively. Secondly, these constituents are not found in replenishment water (imported water and recycled water) at

concentrations above those found in ambient groundwater. Based on the same report, the replenishment water average sulfate, boron, and nitrite concentrations are 79 mg/L, 0.263 mg/L, and 0.05 mg/L, respectively. In addition, the average nitrate concentration of groundwater in the West Coast Basin is 0.64 mg/L According to *the Annual Regional Groundwater Monitoring Report Water Year 2019-2020 for the Central and West Coast Basins*. Because nitrite has not been detected in the basin, nitrate is the primary form of oxidized nitrogen found in the West Coast Basin. Therefore, the nitrate plus nitrite concentrations are also below the water quality objective of 10 mg/L. The projected sulfate, boron, and nitrite concentrations of the HAWPF recycled water are <0.5 mg/L, <0.45 mg/L, and <0.04 mg/L, respectively. At these concentrations, the impact of the proposed project on sulfate, boron, and nitrite concentrations in the groundwater basin are not expected to cause any degradation to the groundwater basin if recycled water makes its way past the root zone.

- 7.4.5. This Order requires best practicable treatment and control, which is a combination of advanced treatment, storage, and application methods that implement the requirements of 22 CCR and the Basin Plan. Recycled water is generated by treating a mixture of domestic wastewater, stormwater, and industrial wastewater from HWRP by advanced treatment to produce water suitable for reuse. The level of treatment provided to the primary effluent at the HAWPF will produce advanced-treated recycled water that will meet disinfected tertiary recycled water standards [Title 22 of the California Code of Regulations (22 CCR), § 60301.230] for non-potable uses. In addition, this Order includes requirements regarding the storage and application of recycled water to protect water quality and to limit public contact with recycled water, as appropriate. These requirements will ensure that pollution or nuisance will not occur and the highest water quality consistent with the maximum benefit to the people of the State will be maintained.
- 7.4.6. The HAWPF increases the use of local supplies by reusing water that would otherwise flow to the ocean via the HWRP without supporting beneficial uses during transmission. The use of recycled water in place of potable water supplies for non-potable uses allowed under this Order improves local water supply availability and reduces the need to rely on imported water.
- 7.4.7. 22 CCR imposes limitations on the uses of recycled water, based on the level of treatment and the specific use to protect public health. By restricting the use of recycled water to those meeting the requirements in 22 CCR, this Order ensures the water will be used safely. To the extent that the use of recycled water may result in some waste constituents entering the environment after effective source control, advanced treatment and other control measures are implemented, the conditions of this Order limiting the use of recycled water to agronomic rates is part of

the suite of treatment, storage, and application measures that comprise best practical treatment and control for irrigation. Other types of uses that may be approved such as toilet/urinal flushing in dual-plumbed systems, dust control, and other short-term or infrequent applications are unlikely to result in sufficient loading of waste constituents that impact water quality.

- 7.4.8. Constituents associated with recycled water that have the potential to degrade groundwater include salts, nutrients, pathogens (represented by coliform bacteria), disinfection byproducts (DBPs), constituents of emerging concern (CECs), and endocrine disrupting chemicals (EDCs). The Los Angeles Water Board finds that the use of recycled water permitted under this Order will not unreasonably affect beneficial uses or result in water quality that is less than that is described in the applicable policies. The characteristics and requirements associated with each of the recycled water constituents of concern are discussed below:
- a. Human activities and land use practices can influence inorganic constituents in groundwater. Abnormally high levels of inorganic constituents (such as TDS, chloride, sulfate, and boron) can impair and preclude beneficial uses. The discharge limitations for TDS, chloride, sulfate, and boron are equivalent to the numeric mineral water quality objectives for the West Coast Groundwater Basin in Table 3-13 of the Basin Plan. These final effluent imitations are also within the secondary MCL “Consumer Acceptance Contaminant Level Ranges” in 22 CCR § 64449 (for TDS, chloride, and sulfate) and below the notification level for boron. The HAWPF will also remove salts using a reverse osmosis system; therefore, the salt concentrations in the recycled water are projected to meet the groundwater quality objectives.
 - b. Nitrogen is a nutrient that may be present in recycled water. High nitrate levels in drinking water can cause health problems in humans. Infants are particularly sensitive and can develop methemoglobinemia (blue-baby syndrome). Human activities and land use practices can also influence the nitrogen concentration in groundwater. The HAWPF will be designed to remove nitrogen from wastewater using a membrane bioreactor and reverse osmosis system. The HAWPF will reduce the concentration of nitrogen compounds below the Basin Plan objectives, as required in this Order. The discharge limitations in this Order for nitrate, nitrite, and the sum of nitrate and nitrite are based on the regional objectives for groundwater in the Basin Plan and the MCLs for nitrate, nitrite, and the sum of nitrate and nitrite in 22 CCR § 64431. In addition, this Order requires application of recycled water to take into consideration nutrient levels in recycled water and nutrient demand by plants. Application of recycled water at agronomic rates and considering soil, climate, and plant demand minimizes the movement of nutrients below the plants' root zone. When applied to cropped (or landscaped) land, some of the nitrogen in recycled water will be taken up by the

plants, lost to the atmosphere through volatilization of ammonia or denitrification, or stored in the soil matrix. As a result, the nitrogen discharged is not expected to impair an existing and/or potential beneficial use of groundwater.

- c. Pathogens and other microorganisms may be present in recycled water based on the disinfection status. Coliform bacteria are used as a surrogate (indicator) because they are present in untreated wastewater, survive in the environment similar to pathogenic bacteria, and are easy to detect and quantify. Pathogens are generally limited in their mobility when applied to land. The HAWPF will include multiple systems designed to remove pathogenic microorganisms, including a membrane bioreactor, cartridge filters, reverse osmosis, and UVAOP. The total coliform discharge limitations in this Order for non-potable uses are based on the definition of disinfected tertiary recycled water in 22 CCR § 60301.230. The removal efficiency of pathogenic bacteria is also influenced by turbidity. Turbidity is an expression of the optical property that causes light to be scattered in water due to particulate matter such as clay, silt, organic matter, and microscopic organisms. The turbidity discharge limitations are based on the definition of filtered wastewater in 22 CCR § 60301.320.
- d. Disinfection by-products (DBPs) consist of organic and inorganic substances produced by the interaction of chemical disinfectants (chlorine for this Facility) with naturally occurring substances in the water source. Common disinfection by-products include trihalomethanes, haloacetic acids, bromate, and chlorite. The HAWPF will treat primary effluent from the HWRP using MBR, RO, and UVAOP, all of which reduce organic and inorganic materials in the water that could potentially form DBPs. Although the AOP includes the introduction of chlorine to the treatment train, the use of ammonium sulfate further reduces the formation of DBPs through the formation of chloramines. Since the treatment train minimizes the concentration of organics, inorganics, and chlorine in the product water, DBPs are not expected to exceed any MCLs in the recycled water. Nonetheless, DBPs with primary MCLs (chloroform, bromodichloromethane, chlorodibromomethane, and bromoform) are still required to be monitored in this Order to ensure the concentrations do not exceed the MCLs.
- e. Chemicals of Emerging Concern (CECs) in recycled water as defined in the Recycled Water Policy are chemicals in personal care products; pharmaceuticals including antibiotics; antimicrobials; industrial, agricultural, and household chemicals; hormones; food additives; transformation products; inorganic constituents; and nanomaterials. CECs are new classes of chemicals, diverse, and relatively unmonitored chemicals. Many of them are so new that standardized measurement

methods and toxicological data for interpreting their potential human or ecosystem health effects are unavailable. The State Water Board convened a CEC Advisory Panel to address questions about regulating CECs with respect to the use of recycled water. The Panel's primary charge was to provide guidance for developing monitoring programs that assess potential CEC threats from various water recycling practices, including groundwater recharge/reuse and urban landscape irrigation. The Panel provided recommendations for monitoring specific CECs in recycled water used for groundwater recharge reuse. Monitoring of health-based CECs or performance indicator CECs is not required for recycled water used for landscape irrigation and other non-potable uses due to the low risk of ingestion of the water; however, the RO system of the HAWPF will likely reduce the concentration of some CECs in the recycled water. CEC monitoring recommendations are included in the Recycled Water Policy and consistent with that policy, since this Order does not provide coverage for groundwater recharge activities, CEC monitoring is not required in this Order.

- f. Endocrine disrupting chemicals (EDCs) are mostly man-made, found in various materials such as pesticides, metals, additives, or contaminants in food, and personal care products. Human exposure to EDCs occurs via ingestion of food, dust and water, via inhalation of gases and particles in the air, and through the skin. The RO system of the HAWPF is expected to reduce the concentration of EDCs in the recycled water prior to distribution and this Order requires proper operation and maintenance of all treatment facilities and control systems; therefore, the discharge is not expected to cause degradation with respect to EDCs. EDCs are not required to be monitored for non-potable recycled water projects in the Recycled Water Policy; however, this permit requires temporary monitoring of all pollutants with drinking water MCLs (including those EDCs with MCLs) to collect data on the prevalence of these pollutants in the recycled water produced at this facility.

7.4.9. Using recycled water for non-potable reuse is to the maximum benefit to the people of the State. The use of recycled water for irrigation and dual-plumbed systems reduces the region's dependence on imported potable water.

7.4.10. Regarding the land application areas, application of recycled water for irrigation is limited to agronomic rates and therefore will not measurably impact groundwater quality or lead to any degradation. To further limit the extent of any degradation, the recycled water is also required to meet the groundwater quality objectives in the Basin Plan for salts and nutrients. To the extent there is any degradation, the use of recycled water for irrigation is to the maximum benefit to the people of the State and the application in accordance with agronomic rates constitutes best practicable treatment and control.

7.5. California Environmental Quality Act (CEQA) and Notification

LASAN published a public Notice of Availability and Notice of Intent to Adopt an Initial Study/Negative Declaration for the HAWPF on September 7, 2017, and started a 30-day public review of the draft Initial Study Report for HAWPF which was prepared by LASAN. The Initial Study was conducted to determine if the physical change due to HAWPF in the environment is potentially significant. LASAN identified no substantial evidence that the project would have a significant impact on the environment. Initial studies that show less than a significant impact on the environment allow a Negative Declaration. In November 2017, LASAN finalized the Initial Study Report, and the Negative Declaration was adopted by the City of Los Angeles Department of Public Works on April 18, 2018. The Initial Study/Negative Declaration for the HAWPF project was prepared in accordance with CEQA (Public Resources Code §21000 et seq.), State CEQA guidelines (CCR Title 14, §15000 et seq.), and City of Los Angeles CEQA Guidelines (1981, amended July 31, 2002, updated 2006).

The Los Angeles Water Board, as a responsible agency under CEQA, finds that all environmental effects have been identified for project activities that it is required to approve, and that, subject to this Order, the Project will not have significant adverse impacts on the environment. In adopting this Order, the Los Angeles Water Board has eliminated or substantially lessened any less-than-significant effects on water quality, and therefore approves the project.

7.6. Environmental Justice and Advancing Racial Equity

The Los Angeles Water Board is also committed to developing and implementing policies and programs to advance racial equity and environmental justice so that race can no longer be used to predict life outcomes, and outcomes for all groups are improved. Effective January 1, 2023, Water Code section 13149.2 requires the regional water boards to make a finding considering the potential environmental justice, tribal impact, and racial equity impacts when issuing or reissuing individual waste discharge requirements or waivers of waste discharge requirements that regulate activity or a facility that may impact a disadvantaged or tribal community, and that includes a time schedule in accordance with subdivision (c) of Section 13263 for achieving an applicable water quality objective, an alternative compliance path that allows time to come into compliance with water quality objectives, or a water quality variance. Under Water Code section 13149.2, subdivision (c), for permit reissuances, “the finding may be limited to considerations related to any changes to the requirements of the prior waste discharge requirements...”

This Order does not include a time schedule, alternative compliance path, or variance. Therefore, Water Code section 13149.2 does not apply to this permit issuance. Nevertheless, the Los Angeles Water Board anticipates that the issuance of this Order will not result in water quality impacts to disadvantaged or tribal communities because the Order requires the Permittee to meet water quality standards to protect public health and the environment.

Water Code section 189.7 requires the Los Angeles Water Board to conduct outreach in affected disadvantaged and/or tribal communities. This Order regulates discharge that does not disproportionately impact the water quality of an economically disadvantaged community defined at Water Code section 189.7(d)(1). According to the 2021 U.S. Census, the median household income (MHI) of El Segundo was \$126,683, which is 50% above the state MHI (\$84,097). Since El Segundo's MHI is not less than 80% of the state's MHI, it is not considered to be economically disadvantaged. The area around the facility has an overall Cal Enviro score of 36 and a pollution burden score of 67.9, which indicates that the surrounding community may be disproportionately burdened by pollution.

This Order may impact tribal communities. Therefore, the Los Angeles Water Board has conducted outreach per Water Code section 189.7 by reaching out to tribal communities about this Order. The Los Angeles Water Board reached out to the Native American Heritage Commission to determine the tribes that may be impacted by this project and the tentative order was sent to each tribal representative.

7.7. Climate Change Effects Vulnerability Assessment and Mitigation Plan

On March 07, 2017 the State Water Board adopted Resolution No. 2017-0012 recognizing the challenges posed by climate change that require a proactive approach in all State Water Board actions, including drinking water regulation, water quality protection, and financial assistance. The resolution lays the foundation for a response to climate change that is integrated into all State Water Board actions by providing direction to the State Water Board divisions and encouraging coordination with the regional water boards. In addition to the State Water Board's resolution (No. 2017- 0012, the Los Angeles Regional Water Board adopted Resolution No. R18- 004, "A Resolution to Prioritize Actions to Adapt to and Mitigate the Impacts of Climate Change on the Los Angeles Region's Water Resources and Associated Beneficial Uses" on May 10, 2018. The resolution summarizes the steps taken so far to address the impacts of climate change within the Los Angeles Water Board's programs and lists a series of steps to move forward. These include the identification of potential regulatory adaptation and mitigation measures that could be implemented on a short-term and long-term basis by each of the Los Angeles Water Board's programs to take into account, and assist in mitigating where possible, the effects of climate change on water resources and associated beneficial uses. This Order contains provisions to require planning and actions to address climate change impacts in accordance with both the State and Los Angeles Water Board resolutions. Climate change research also indicates the overarching driver of climate change is increased atmospheric carbon dioxide from human activity. The increased carbon dioxide emissions trigger changes to climatic patterns, which increase the intensity of sea level rise and coastal storm surges, lead to more erratic rainfall and local weather patterns, trigger a gradual warming of freshwater and ocean temperatures, and trigger changes to ocean water chemistry.

THEREFORE, IT IS HEREBY ORDERED that, the Permittees shall comply with the requirements in this Order:

8. INFLUENT SPECIFICATIONS

The influent to the HAWPF shall be primary effluent from the HWRP as described in this Order. The influent to the HAWPF is predominantly composed of wastewater from residential, commercial, and industrial users. The Permittees shall maintain an active pretreatment program to control pollutants that may interfere with treatment or pass through the HAWPF.

9. RECYCLED WATER TREATMENT SPECIFICATIONS

Treatment of recycled water shall be as described in the findings of this Order and as described in DDW's conditional approval letter issued on October 25, 2021 (Attachment F).

10. RECYCLED WATER DISCHARGE LIMITATIONS

- 10.1. Recycled Water used in compliance with this Order shall be limited to disinfected advanced-treated recycled water and comply with the definition of disinfected tertiary recycled water in 22 CCR §60301.230.
- 10.2. The disinfected advanced-treated recycled water produced at HAWPF and used for beneficial reuse shall not contain pollutants greater than the limits in Table 6.

Table 6. Recycled Water Limitations

| Constituents | Unit | Average monthly | 7-day median | Maximum daily | Instantaneous minimum | Instantaneous maximum | Note |
|---|---------------|-----------------|--------------|---------------|-----------------------|-----------------------|------|
| 5-day biochemical oxygen demand at 20 degrees Celsius (BOD ₅ 20°C) | mg/L | 20 | -- | 45 | -- | -- | a |
| Total suspended solids (TSS) | mg/L | 15 | -- | 45 | -- | -- | a |
| Settleable solids | mL/L | 0.1 | -- | 0.3 | -- | -- | a |
| pH | standard unit | -- | -- | -- | 6.5 | 8.5 | a |
| Oil and grease | mg/L | 10 | -- | 15 | -- | -- | -- |
| Total coliform | MPN/100 mL | 23 | 2.2 | -- | -- | 240 | b |
| Turbidity | NTU | -- | -- | 0.2 | -- | 0.5 | c |
| TDS | mg/L | 800 | -- | -- | -- | -- | -- |
| Sulfate | mg/L | 250 | -- | -- | -- | -- | -- |
| Chloride | mg/L | 250 | -- | -- | -- | -- | -- |
| Boron | mg/L | 1.5 | -- | -- | -- | -- | -- |
| Nitrate + nitrite (as N) | mg/L | 10 | -- | -- | -- | -- | -- |
| Nitrate (as N) | mg/L | 10 | -- | -- | -- | -- | -- |
| Nitrite (as N) | mg/L | 1 | -- | -- | -- | -- | -- |

Footnotes for Table 6

- a. This is a technology-based limit contained in similar orders for Publicly Owned Treatment Works (POTWs) indicative of treatment levels that are achievable by tertiary-treated wastewater treatment systems.
- b. The median concentration of total coliform bacteria measured in the disinfected effluent shall not exceed an MPN of 2.2 per 100 mL utilizing the bacteriological results of the last seven days for which analyses have been completed and the number of total coliform bacteria does not exceed an MPN of 23 per 100 mL in more than one sample in any 30-day period. No sample shall exceed an MPN of 240 total coliform per 100 mL (22 CCR § 60301.230).
- c. The turbidity of the MBR filtrate shall not exceed any of the following: 1) 0.2 NTU more than 5% of the time (72 minutes) within a 24-hour period, 2) 0.5 NTU at any time (22 CCR § 60301.320).

End of footnotes for Table 6

11. GENERAL REQUIREMENTS

- 11.1. Bypass, discharge, or delivery to the use area of inadequately treated recycled water, at any time, is prohibited.
- 11.2. The recycling facility shall be adequately protected from inundation and damage by storm flows.
- 11.3. Recycled water use or disposal shall not result in earth movement in geologically unstable areas.
- 11.4. The HAWPF shall not be the source of pollution or nuisance at any time outside the boundary of the Facility, including odors that unreasonably affect beneficial uses and odors injurious to health.
- 11.5. The wastewater treatment and use of recycled water shall not result in problems caused by breeding of mosquitoes, gnats, midges, or other pests.
- 11.6. The use of recycled water shall not impart tastes, odors, color, foaming, or other objectionable characteristics to the receiving groundwater.
- 11.7. Recycled water shall not contain any substance in concentrations toxic to human, animal, or plant life.
- 11.8. Odors of sewage origin shall not be perceivable beyond the limits of the property owned or controlled by the Permittees and/or recycled water user.
- 11.9. The Permittees shall always properly operate and maintain all treatment facilities and control systems (and related appurtenances) which are installed or used by the Permittees to achieve compliance with the conditions of this Order. Proper operation and maintenance include effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls (including appropriate quality assurance procedures).
- 11.10. A copy of these requirements shall be maintained at the HAWPF and shall always be available to operating personnel.
- 11.11. The Permittees shall furnish each user of recycled water a copy of these requirements and ensure that the requirements are maintained at the user's facility and always available to operating personnel.
- 11.12. Supervisors and operators of this publicly owned wastewater treatment facility shall possess a certificate of appropriate grade as specified in CCR, title 23, Division 3, Chapter 26.
- 11.13. For any material change or proposed change in character, location, or volume of recycled water, or its uses, the Permittees shall submit at least 120 days prior to the proposed change an engineering report or addendum to the existing engineering report to the Los Angeles Water Board and DDW (pursuant to section 13522.5 and CCR, title 22, section 60323) for approval. The engineering report shall be prepared by a qualified engineer registered in California. This updated engineering report shall describe the current

treatment plant, the impacts on the recycled water operation, and contain the operation and maintenance manual, including a preventive (fail-safe) procedure and contingency plan for controlling accidental discharge and/or delivery to users of inadequately treated recycled water.

11.14. Climate Change Effects Vulnerability Assessment and Mitigation Plan

The Permittees shall consider the impacts of climate change as they affect the operation of the HAWPF, the collection system, and the recycled water distribution system due to flooding, wildfire, or other climate-related changes. The Permittees shall develop a Climate Change Effects Vulnerability Assessment and Mitigation Plan (Climate Change Plan) to assess and manage climate change-related effects that may impact the wastewater treatment facility's operation, water supplies, its collection system, and water quality, including any projected changes to the influent water temperature and pollutant concentrations, beneficial uses, as well as the impact of rising sea level (where applicable). The Permittees shall also identify new or increased threats to the sewer system resulting from climate change that may impact desired levels of service in the next 50 years. The Permittees shall project upgrades to existing assets or new infrastructure projects, and associated costs, necessary to meet desired levels of service. The Climate Change Plan shall also identify steps being taken or planned to address greenhouse gas emissions attributable to wastewater treatment plants, solids handling, and effluent discharge processes. The Climate Change Plan is due 12 months after the effective date of this Order.

12. SPECIFICATIONS FOR RECYCLED WATER

12.1. The recycled water from the HAWPF may be used for the following non-potable uses once approved following the requirements in section 16.3 of this Order.

12.1.1. 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;
- Decorative fountains;
- Ornamental nursery stock where the public is not restricted; and
- Landscape irrigation on site at HWRP.

- Other allowable irrigation applications specified in 22 CCR, provided the Permittees submit an updated use site report and attains approval following the requirements in section 16.3 prior to delivery of recycled water to the new use site or for the new use.
- 12.1.2. Industrial boiler makeup water on site of HWRP and LAX.
 - 12.1.3. Cooling towers makeup water at LAX, following the requirements in 22 CCR section 60306.
 - 12.1.4. Sewer flushing.
 - 12.1.5. Dual-plumbed systems may be used to deliver recycled water to end users if the detailed dual-plumbed system requirements included in section 8 of this Order and 22 CCR sections 60313-60319 are met.
 - 12.1.6. Other industrial uses at HWRP, including uses for odor scrubbers, pump seals, centrifuge seals, and polymer dilution.
 - 12.1.7. Street sweeping.
 - 12.1.8. Dust control.
 - 12.1.9. Vehicle and equipment washing and airplane water cannon salutes at LAX.
 - 12.1.10. Firefighting.
- 12.2. Recycled water shall be produced, managed, distributed, stored, and used in conformance with the applicable regulations contained in 22 CCR and 17 CCR.
 - 12.3. 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 sections 60301.230 and filtered wastewater, as defined in 60301.320. The distributor may be a recycled water wholesaler, retail water supplier, or retailer as defined in CWC section 13575.
 - 12.4. Recycled water shall not be used for direct human consumption or for the processing of food or drink intended for human consumption.
 - 12.5. The delivery of recycled water to end users shall be subject to DDW approval and/or its delegated local agency.
 - 12.6. The recycled water shall not be used for any other uses than those specified above (including proposed uses such as toilet flushing, odor scrubber, pump seals, centrifuge seals, polymer dilution, and other industrial uses on site of HWRP) unless the new uses are approved following requirements in section 16.3 of this Order.
 - 12.7. Recycled water shall be retained in the areas of use and shall not be allowed to escape as surface flow except as provided for in a National Pollutant Discharge Elimination System (NPDES) permit.

- 12.8. Recycled water use and monitoring shall be consistent with any applicable salt and nutrient management plans for the groundwater basin/sub-basin.

13. USE AREA REQUIREMENTS

“Use area” is an area of recycled water use with defined boundaries, which may contain one or more facilities where recycled water is used. The Permittees shall ensure all users of recycled water comply with the following:

- 13.1. All use areas that are accessible to the public shall be posted with signs that are visible to the public 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 like that shown in 22 CCR, Figure 60310-A.
- 13.2. No physical connection shall be made or allowed to exist between any recycled water piping and any piping conveying potable water, except as allowed under 17 CCR section 7604.
- 13.3. 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.
- 13.4. No impoundment or storage ponds containing disinfected recycled water shall occur within 100 feet of any domestic water wells, potable water reservoirs, and streams used as sources of water supply.
- 13.5. 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:
- 13.5.1. A drift eliminator shall be used whenever the cooling system is in operation.
- 13.5.2. Chlorine or another biocide shall be used to treat the cooling system recirculating water to minimize the growth of Legionella and other microorganisms.
- 13.6. No irrigation with disinfected tertiary recycled water shall take place within 50 feet of any domestic water supply well unless all the following conditions have been met:
- 13.6.1. A geological investigation demonstrates that an aquitard exists at the well between the uppermost aquifer being drawn from and the ground surface;
- 13.6.2. The well contains an annular seal that extends from the surface into the aquitard;

- 13.6.3. The well is housed to prevent any recycled water spray from coming into contact with the wellhead facilities;
- 13.6.4. The ground surface immediately around the wellhead is contoured to allow surface water to drain away from the well; and
- 13.6.5. The owner of the well approves of the elimination of the buffer zone requirement.
- 13.7. No irrigation shall take place within 50 feet of any reservoir or stream used as a source of domestic drinking water.
- 13.8. 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.
- 13.9. 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, Waste Discharge Requirements, a Conditional Waiver of Waste Discharge Requirements, or other orders issued by the State or Los Angeles Water Board.
- 13.10. Spray, mist, or runoff shall not enter dwellings, designated outdoor eating areas, or food handling facilities, and shall not contact any drinking water fountain and public present. Drinking water fountains must be equipped with hoods or covers.
- 13.11. No recycled water shall be applied to irrigation areas during periods when soils are saturated such as when there is rainfall and/or runoff.
- 13.12. Recycled water used for landscape or crop irrigation shall be limited to periods of time when the public is not present.
- 13.13. Incidental runoff from landscape irrigation shall be controlled through the following practices:
 - 13.13.1. 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,
 - 13.13.2. Proper design and aim of sprinkler heads,
 - 13.13.3. Refraining from application during precipitation events, and
 - 13.13.4. Management of any ponds containing recycled water such that no discharge occurs unless the discharge is otherwise regulated pursuant to an NPDES permit.
- 13.14. All above-ground appurtenances shall be marked appropriately.

- 13.15. All recycled water use areas shall be inspected periodically in accordance with section 3 of the MRP.
- 13.16. 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.
- 13.17. The Permittees 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 for review within 90 days of the effective date of this Order.
- 13.18. If the recycled water system lateral pipelines are located along the property lines of homeowners, there may be a potential for cross connections. A buffer zone between the recycled water lines and the property owners is necessary. If the Permittees cannot maintain adequate control of the recycled water system pipelines, the pipelines need to be relocated or a physical barrier needs to be installed to prevent cross connections, and the Permittees shall implement a public outreach program to inform the public. If the recycled water system lateral pipelines are located on an easement contiguous to a homeowner's private property and where there is a reasonable probability that an illegal or accidental connection to the recycled water line could be made, the Permittees shall provide a buffer zone or other necessary measures between the recycled water lines and the easement to prevent any illegal or accidental connection to the recycled water lines. The Permittees shall notify homeowners about the recycled water lateral and restrictions on usage of recycled water.
- 13.19. Each new/proposed recycled water use area shall be approved following requirements in section 16.3 of this Order.
- 13.20. 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.
- 13.21. All recycled water pipelines and valves shall be installed with purple identification tape or purple polyethylene vinyl wraps according to the American Water Works Association's (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.

- 13.22. 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.

14. SPECIFICATIONS AND REQUIREMENTS FOR DUAL-PLUMBED SYSTEMS

The Permittees and LAWA have an interest in using recycled water for toilet flushing. If the use is approved by DDW and the Los Angeles Water Board and permitted by the Los Angeles Water Board pursuant to section 7.6 above, the relevant use sites will be designated as dual-plumbed. The specifications for dual-plumbed systems are as follows:

- 14.1. Recycled water used for toilet flushing shall be treated to a quality that meets the definition of disinfected tertiary recycled water requirements in 22 CCR § 60301.230 at a minimum.
- 14.2. The public water supply shall not be used as a backup or supplemental source of water for a dual-plumbed recycled water system unless the connection between the two systems is protected by an air gap separation which complies with the requirements of 17 CCR sections 7602(a) and 7603(a), and that such connection has been approved by DDW and/or its delegated local agency.
- 14.3. After receiving approval from the Los Angeles Water Board to use recycled water for dual-plumbed systems, the Permittees shall not deliver recycled water to a facility using a dual-plumbed system unless the report of recycled water use, required pursuant to CWC section 13522.5, and which meets the requirements set forth in this Order, has been submitted and approved by DDW and/or its delegated local agency. The Los Angeles Water Board shall be furnished with a copy of DDW's approval with the aforementioned report within 30 days following the approval for the project file.
- 14.4. The report of recycled water use, submitted pursuant to CWC section 13522.5, shall contain the following information for dual-plumbed systems, in addition to the information required by 22 CCR section 60323 (Engineering Report):
 - 14.4.1. A detailed description of the intended use site identifying the following:
 - a. The number, location, and type of facilities within the use area proposing to use dual-plumbed systems;
 - b. The average daily number of persons estimated to be served by each facility;
 - c. The specific boundaries of the proposed use site including a map showing the location of each facility to be served;
 - d. The person or persons responsible for operation of the dual-plumbed system at each facility; and
 - e. The specific use to be made of the recycled water at each facility.

14.4.2. Plans and specifications describing the following:

- a. Proposed piping system to be used;
- b. Pipe locations of both the recycled and potable systems;
- c. Type and location of the outlets and plumbing fixtures that will be accessible to the public; and
- d. The methods and devices to be used to prevent backflow of recycled water into the public water system.

14.4.3. The methods to be used by the Permittees to ensure the installation and operation of the dual-plumbed system will not result in cross connections between the recycled water piping system and the potable water piping system. These shall include a description of pressure, dye, or other test methods to be used to test the system every four years.

14.5. Prior to the initial operation of the dual-plumbed recycled water system and annually thereafter, the dual-plumbed system within each facility and use site shall be inspected for possible cross connections with the potable water system. The recycled water system shall also be tested for possible cross connections at least once every four years. The testing shall be conducted in accordance with the method described in the report submitted pursuant to 22 CCR section 60314. The inspections and the testing shall be performed by a cross connection control specialist certified by the California-Nevada Section of the American Water Works Association (AWWA) or an organization with equivalent certification requirements. A written report documenting the result of the inspection and testing shall be submitted to DDW within 30 days following completion of the inspection or test.

14.6. The Permittees shall notify DDW of any incidence of backflow from the dual-plumbed recycled water system into the potable water system within 24 hours of discovery of the incident.

14.7. Any backflow prevention device installed to protect the public water system serving the dual-plumbed recycled water system shall be inspected and maintained in accordance with 17 CCR, section 7605.

15. DDW SPECIFICATIONS AND REQUIREMENTS

The Permittees shall comply with the requirements set forth in DDW's conditional acceptance letter to the Los Angeles Water Board dated October 25, 2021, and in an email on May 23, 2023:

15.1. The Permittees shall submit a supplementary Engineering Report along with necessary information and drawings to DDW for review and acceptance if any changes to the information presented in the current Engineering Report are considered in the future.

15.2. The Permittees shall submit an Operation and Maintenance Manual to DDW for review prior to using recycled water from the HAWPF.

- 15.3. The Permittees shall provide an addendum to the Revised Title 22 Engineering Report for the HAWPF dated September 2021 that was accepted by DDW on October 25, 2021, for any new use of recycled water presented in the NOI Technical Report dated December 30, 2022. These include but are not limited to boiler feed, odor scrubber, centrifuge seal, pump seal, polymer dilution, etc. The Permittees shall submit an engineering report describing the new uses of recycled water to the Los Angeles Board and DDW for approval prior to implementing the new use of recycled water.

16. PROVISIONS

- 16.1. Irrigation with recycled water shall not cause or contribute to an exceedance of the Basin Plan water quality objectives.
- 16.2. The Permittees shall submit plans for proposed projects and as-built drawings for recycled water projects and obtain approval from DDW or its delegated local health agency for each recycled water project. The *AWWA Guidelines for the Distribution of Non-Potable Water* shall be followed, including installation of purple pipe, adequate signs, etc. As-built drawings shall 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. In addition, a copy of each application for a recycled water project shall be submitted to DDW and the Los Angeles Water Board with the following information:
- 16.2.1. A description of each use area including, but not limited to, a description of what will be irrigated (e.g., landscape, specific food crop, etc.); method of irrigation (e.g., spray, flood, or drip); the location of domestic water supply facilities adjacent to the use areas; site containment measures; the party responsible for the distribution and use of the recycled water at the site; and identification of other governmental entities which may have regulatory jurisdiction over the reuse site(s); and
- 16.2.2. A map showing specific areas of use, areas of public access, surrounding land uses, the location and construction details of wells in or near the use areas, the location and type of signage, the degree of potential access by employees or the public, and any exclusionary measures (e.g., fencing).
- 16.3. For any extension or expansion of the recycled water system, including the addition of new uses not covered under this Order or new use areas that previously did not receive recycled water from the HAWPF, the Permittees shall submit an updated Engineering Report or addendum to the Engineering Report detailing the extension or expansion plan for review by DDW (or its delegated local health agency) and the Los Angeles Water Board, and for approval by DDW or its delegated local health agency. The report shall include, but not be limited to, the information specified in section 16.2 above, a

use site report, and the results of any required shut-down tests. The Permittees shall submit to the Los Angeles Water Board a copy of the approved expansion plan and DDW approval within 30 days of approval. The Permittee shall not deliver recycled water to the new use site or for the new uses until the Executive Officer of the Los Angeles Water Board ensures the requirements in these WDRs/WRRs are protective of human health and the groundwater basin and approves the distribution of the recycled water to the new use sites or for the new uses. Following construction, as-built drawings shall be submitted to DDW or its delegated local health agency for approval prior to delivery of recycled water. A copy of as-built drawings and DDW approval shall be submitted to the Los Angeles Water Board within 30 days of DDW's approval.

- 16.4. The Permittees shall submit to the Los Angeles Water Board, signed under penalty of perjury by the designated responsible party, technical self-monitoring reports according to the specifications contained in the Monitoring and Reporting Program, as may be amended by the Executive Officer.
- 16.5. The Permittees shall notify the Los Angeles Water Board and DDW, immediately by telephone, of any confirmed coliform counts that could cause a violation of the requirements of this Order. This information shall be summarized in the following monitoring report. For any actual coliform limit violation that occurred, the report shall also include the cause(s) of the high coliform counts, the corrective measures undertaken (including dates thereof), and the preventive measures undertaken to prevent a recurrence.
- 16.6. This Order does not exempt the Permittees from compliance with any other laws, regulations, or ordinances which may be applicable; it does not legalize the recycling and use facilities; and it leaves unaffected any further constraint on the use of recycled water at certain site(s) that may be contained in other statutes or required by other agencies.
- 16.7. This Order does not alleviate the responsibility of the Permittees 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 the recycled water distribution facility shall be contingent upon issuance of all necessary requirements and permits, including a conditional use permit.
- 16.8. The Permittees shall furnish, within a reasonable time, any information the Los Angeles Water Board or DDW may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. Upon request, the Permittees shall also furnish the Los Angeles Water Board with copies of records required to be kept under this Order for at least three years.
- 16.9. This Order includes the attached *Standard Provisions Applicable to Waste Discharge Requirements* (Attachment D). If there is any conflict between the

provisions stated hereinbefore and the Standard Provisions, the provisions stated hereinbefore shall prevail.

- 16.10. This Order includes the attached Monitoring and Reporting Program No. CI-10735 (Attachment E). 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.

17. REOPENER

- 17.1. This Order may be modified, revoked and reissued, or terminated for cause, including but not limited to: (1) failure to comply with any condition in this Order, (2) endangerment of human health or the environment resulting from the permitted activities in this Order, (3) obtaining this Order by misrepresentation or failure to disclose all relevant facts, or (4) new information that justifies the application of different conditions. The filing of a request by the Permittees for modification, revocation and reissuance, or termination of the Order or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
- 17.2. This Order may be reopened to include the most scientifically relevant and appropriate limitations for this discharge based on monitoring results, studies, revisions to the Basin Plan or other Board policy, or the application of an attenuation factor based upon an approved site-specific attenuation study.
- 17.3. This Order may be reopened to modify limitations for constituents to protect beneficial uses, based on new information not available at the time this Order was adopted.
- 17.4. If additional monitoring, reporting, and trend analysis indicates changed aquifer conditions, this Order may be reopened to ensure the groundwater is protected in a manner consistent with the state and federal water quality laws and regulations.
- 17.5. This Order may be reopened to incorporate any new regulatory requirements for sources of drinking water that are adopted after the effective date of this Order.
- 17.6. This Order may be reopened upon a determination by DDW that treatment and disinfection of recycled water is insufficient to protect human health.
- 17.7. This Order may be reopened if the Executive Officer of the Los Angeles Water Board determines additional requirements are needed to permit uses listed in this permit or new use sites to protect human health or to prevent degradation of the groundwater basin.
- 17.8. This Order may be reopened to include new requirements for uses not currently listed in this Order.

18. ENFORCEMENT

The requirements of this Order are subject to enforcement under Water Code sections 13261, 13264, 13265, 13268, 13300, 13301, 13304, 13350, and enforcement provisions in Water Code, Division 7, Chapter 7 (Water Reclamation).

ATTACHMENT A – DEFINITIONS

Advanced-treated Recycled Water

In this permit, this is the treated recycled water produced by the Hyperion Advanced Water Purification Facility (HAWPF).

Agronomic Rate

The rate of application of recycled water to plants necessary to satisfy the plants' evapotranspiration requirements, considering allowances for supplemental water (e.g., effective precipitation), irrigation distribution uniformity, and leaching requirement, thus minimizing the movement of nutrients below the plants' root zone.

Arithmetic Mean (μ)

Also called the average, is the sum of measured values divided by the number of samples.

Average Monthly Effluent Limitation (AMEL)

The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during the calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL)

The highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Coagulated Wastewater

Oxidized wastewater in which colloidal and finely divided suspended matter have been destabilized and agglomerated upstream from a filter by the addition of suitable flocc-forming chemicals.

Composite Sample, 24-hour

An aggregate sample derived from no fewer than eight samples collected at equal time intervals or collected proportional to the flow rate over the compositing period. The aggregate sample shall reflect the average source water quality covering the composite 24-hour sample period.

Conventional Treatment

A treatment chain that utilizes a sedimentation unit process between the coagulation and filtration processes and produces an effluent that meets the definition for disinfected tertiary recycled water.

Daily Discharge

Daily Discharge is defined as either: (1) the total mass of a constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

Detected, but Not Quantified (DNQ)

Sample results less than the reporting limit (RL), but greater than or equal to the laboratory's method detection limit (MDL). Sample results reported as DNQ are estimated concentrations.

Disinfected Tertiary Recycled Water

A filtered and subsequently disinfected wastewater that meets the following criteria:

- (a) The filtered wastewater which has been disinfected by either:
 - (1) A chlorine disinfection process following filtration that provides a contact time (CT, the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow; or
 - (2) A disinfection process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration.
- (b) The median concentration of total coliform bacteria measured in the disinfected effluent does not exceed a most probable number (MPN) of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed and the number of total coliform bacteria does not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30-day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.

Dual Plumbed System

A system that utilizes separate piping systems for recycled water and potable water within a facility and where the recycled water is used for either of the following purposes:

- (a) To serve plumbing outlets (excluding fire suppression systems) within a building or
- (b) Outdoor landscape irrigation at individual residences.

Estimated Chemical Concentration

The estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the minimum level (ML) value.

Filtered Wastewater

An oxidized wastewater that meets the criteria in subsection (a) or (b):

(a) Has been coagulated and passed through natural undisturbed soils or a bed of filter media pursuant to the following:

(1) At a rate that does not exceed 5 gallons per minute per square foot of surface area in mono, dual or mixed media gravity, up flow or pressure filtration systems, or does not exceed 2 gallons per minute per square foot of surface area in travelling automatic backwash filters; and

(2) So that the turbidity of the filtered wastewater does not exceed any of the following:

- i. An average 2 nephelometric turbidity units (NTU) within a 24-hour period;
- ii. 5 NTU more than 5 percent of the time within a 24-hour period; and
- iii. 10 NTU at any time.

(b) Has been passed through a microfiltration, ultrafiltration, nanofiltration, or reverse osmosis membrane so that the turbidity of the filtered wastewater does not exceed any of the following:

(1) 0.2 NTU more than 5 percent of the time within a 24-hour period; and

(2) 0.5 NTU at any time.

F-specific bacteriophage MS-2

A strain of a specific type of virus that infects coliform bacteria that is traceable to the [American Type Culture Collection (ATCC) 15597B1] and is grown on lawns of *Escherichia coli* (*E. coli*) (ATCC 15597).

Grab Sample

An individual sample collected during a period not to exceed 15 minutes. Grab samples shall be collected during normal peak loading conditions for the parameter of interest, which may or may not occur during hydraulic peaks.

Incidental Runoff

Unintended small amounts (volume) of runoff from recycled water use areas, such as unintended, minimal over-spray from sprinklers that escapes the recycled water use area.

Instantaneous Maximum Effluent Limitation

The highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation

The lowest allowable value for any single sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Maximum Contaminant Level (MCL)

The maximum permissible concentration of a contaminant established pursuant to

section 116275(c)(1) and (d) of the Health and Safety Code of the California Code or established by the United States Environmental Protection Agency (USEPA).

Maximum Daily Effluent Limitation (MDEL)

The highest allowable daily discharge of a pollutant over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Median

The middle measurement in a set of data. The median of a data set is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = $X_{(n+1)/2}$. If n is even, then the median = $(X_{n/2} + X_{n/2+1})/2$ (i.e., the midpoint between the $n/2$ and $n/2+1$).

Method Detection Limit (MDL)

The minimum concentration of a substance that can be reported with 99 percent confidence that the measured concentration is distinguishable from method blank results.

Minimum Level (ML)

The concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Minimum Reporting Level (MRL)

The smallest measured concentration of a substance that can be reliably measured by using a given analytical method. It is the “less-than” value reported when an analyte either is not detected or is detected at a concentration less than the MRL

Modal Contact Time

The amount of time elapsed between the time that a tracer, such as salt or dye, is injected into the effluent at the entrance to a chamber and the time that the highest concentration of the tracer is observed in the effluent from the chamber.

Not Detected (ND)

Sample results which are less than the laboratory’s MDL.

Notification Level (NL)

The concentration of a contaminant established by the Department pursuant to section 116455 of the Health and Safety Code of the California Code.

NTU (Nephelometric Turbidity Unit)

A measurement of turbidity as determined by the ratio of the intensity of light scattered by the sample to the intensity of incident light scattered by the sample to the intensity of incident light as measured by method 2130 B in *Standard Methods for the Examination*

of Water and Wastewater, 20th ed.; Eaton, A.D., Clesceri, L.S., and Greenberg, A.E., Eds; American Public Health Association: Washington, DC, 1995; p.2-8.

Oxidized Wastewater

Wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen.

Recycled Municipal Wastewater

Recycled water that is the effluent from the treatment of wastewater of municipal origin.

Recycled Water

Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur therefore considered a valuable resource. (Wat. Code, § 13050(n).)

Spray Irrigation

The application of recycled water to plants to maintain vegetation or support growth of vegetation by applying it from sprinklers.

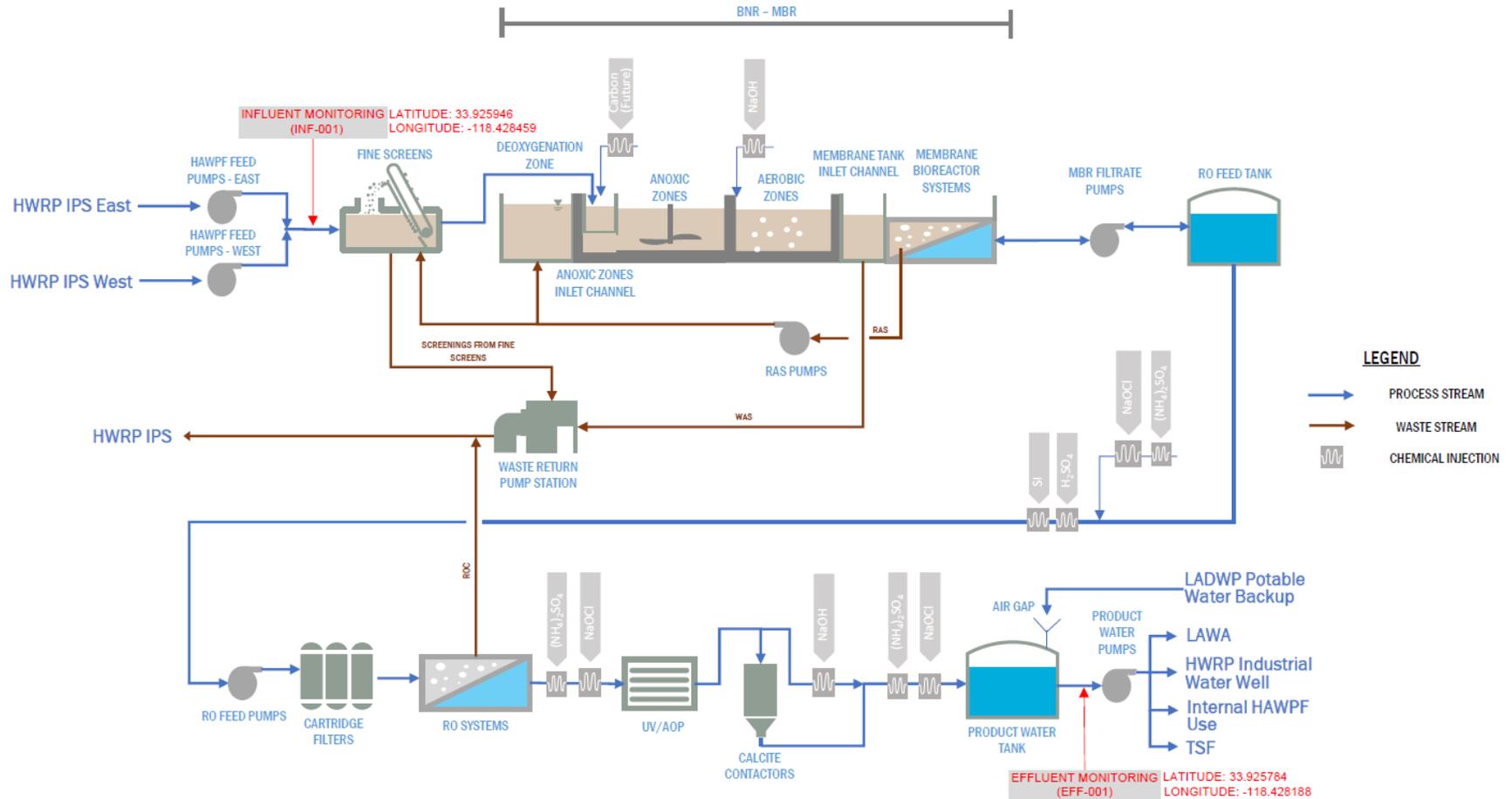
Surface Irrigation

Application of recycled water by means other than spraying such that contact between the edible portion of any food crop and recycled water is prevented (i.e., drip or flood irrigation).

Use Area

An area of recycled water use with defined boundaries. Agricultural use areas may contain one or more facilities (ditch, irrigated fields, pumping stations, etc.); use areas may also consist of an aggregate of small lots (e.g., residential/ industrial developments, roadway median irrigation, etc.).

ATTACHMENT B – PROCESS FLOW DIAGRAM



ATTACHMENT C – RECYCLED WATER DISTRIBUTION AREA



ATTACHMENT D – STANDARD PROVISIONS

1. Duty to Comply

The Permittees shall comply with all conditions of these waste discharge requirements. A responsible party has been designated in the Order for this project and is legally bound to maintain the monitoring program and permit. Violations may result in enforcement actions, including the Los Angeles Water Quality Control Board (Los Angeles Water Board) orders or court orders requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Los Angeles Water Board [California Water Code (CWC) sections 13261, 13263, 13265, 13268, 13300, 13301, 13304, 13340, 13350]. Failure to comply with any waste discharge requirement, monitoring and reporting requirement, or other order or prohibition issued, reissued, or amended by the Los Angeles Water Board or California State Water Resources Control Board (State Water Board) is a violation of these waste discharge requirements and the California Water Code (CWC), which can result in the imposition of civil liability. (CWC section 13350, subdivision (a)).

2. General Prohibition

Neither the treatment nor the discharge of waste shall create pollution, contamination, or nuisance, as defined by CWC section 13050. In addition, the discharge of waste classified as hazardous, as defined in title 23 of the California Code of Regulations (23 CCR) 2521(a), is also prohibited.

3. Availability

A copy of these waste discharge requirements shall be maintained at the discharge facility and be available at all times to operating personnel (CWC section 13263).

4. Change in Ownership

The Permittees shall notify any 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. The Permittees shall notify the Los Angeles Water Board, in writing, at least 60 days in advance of ownership change and provide a date on which the transfer of this Order's responsibility and coverage will go from the current discharger to the new discharger. The notification shall include an agreement between the parties to transfer responsibility for compliance with the Order. The agreement shall include an acknowledgement that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date forward. The succeeding owner or operator shall submit a Report of Waste Discharge that requests an amendment to formally amend the Order to acknowledge the transfer.

5. Change in Discharge

In the event of a material change in the character, location, or volume of a discharge, the Permittees shall file with the Los Angeles Water Board a new Report of Waste Discharge (CWC section 13260, subdivision (c)). A material change includes, but is not limited to, the following:

- 5.1. Addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the waste.
- 5.2. Significant change in disposal method, e.g., change from a land disposal to a direct discharge to water, or change in the method of treatment which would significantly alter the characteristics of the waste.
- 5.3. Significant change in the disposal area, e.g., moving the discharge to another drainage area, or to a disposal area significantly removed from the original area potentially causing different water quality or nuisance problems.
- 5.4. Increase in flow beyond that specified in the waste discharge requirements.
- 5.5. Increase in area or depth to be used for solid waste disposal beyond that specified in the waste discharge requirements (23 CCR § 2210).

6. Revision

These waste discharge requirements are subject to review and revision by the Los Angeles Water Board (CWC section 13263).

7. Notification

Where the Permittees becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Los Angeles Water Board, the Permittees shall promptly submit such facts or information (CWC sections 13260 and 13267).

8. Vested Rights

This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, do not protect the Permittees from his liability under Federal, State or local laws, nor do they create a vested right for the Permittees to continue the waste discharge (CWC section 13263 subdivision (g)).

9. Severability

Provisions of these waste discharge requirements are severable. If any provision of these requirements is found invalid, the remainder of these requirements shall not be affected (CWC section 921).

10. Operation and Maintenance

The Permittees shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittees to achieve compliance with the conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order (CWC section 13263, subdivision (f)).

11. Hazardous Releases

Except for a discharge which is in compliance with these waste discharge requirements, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with section 8574.16) of the Government Code, and immediately notify the State Water Board or the Los Angeles Water Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of CWC section 13271 unless the discharge is in violation of a prohibition in the applicable Water Quality Control Plan (CWC section 13271, subdivision (a)).

12. Oil and Petroleum Releases

Except for a discharge which is in compliance with these waste discharge requirements, any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any water of the State, shall, as soon as (a) such person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to article 3.5 (commencing with section 8574.1) of chapter 7, division 1, of title 2 of the Government Code. This provision does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to section 311 of the Clean Water Act or the discharge is in violation of a prohibition in the applicable Water Quality Control Plan (CWC section 13272).

13. Entry and Inspection

The Permittees 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:

- 13.1. Enter upon the Permittees' processes where a regulated facility or activity is located or conducted, or where records shall be kept under the conditions of this Order;
- 13.2. Have access to and copy at reasonable times, any records that shall be kept under the conditions of this Order;
- 13.3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order;
- 13.4. 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
- 13.5. 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.

14. Monitoring Program and Devices

The Permittees shall furnish, under penalty of perjury, technical monitoring program reports; such reports shall be submitted in accordance with specifications prepared by the Executive Officer, which are subject to periodic revisions as may be warranted (CWC section 13267).

All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year, or more frequently, to ensure continued accuracy of the devices. Annually, the Permittees shall submit to the Executive Officer a written statement, signed by a registered professional engineer, certifying that all flow measurement devices have been calibrated and will reliably achieve the accuracy required.

The analysis of any material required pursuant to division 7 of the CWC shall be performed by a laboratory that has accreditation or certification pursuant to article 3 (commencing with section 100825) of chapter 4, part 1, division 101 of the Health and Safety Code of the California Code. However, this requirement does not apply to field tests, such as tests of color, odor, turbidity, pH, temperature, dissolved oxygen, conductivity, and disinfectant residual chlorine (CWC, section 13176).

Unless otherwise permitted by the Los Angeles Water Board Executive Officer, all analyses shall be conducted at a laboratory certified for such analyses by the State Water Resources Control Board, Division of Drinking Water. All analyses shall be required to be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" (40 CFR § 136) promulgated by the USEPA (23 CCR § 2230). The Quality Assurance-Quality Control Program must conform with the USEPA guidelines, "Laboratory Documentation Requirements for Data Validation," January 1990, USEPA Region 9) or procedures approved by the Los Angeles Regional Water Quality Control Board.

All Quality Assurance and Quality Control (QA/QC) analyses must be run on the same dates when samples were actually analyzed. All QA/QC data shall be reported, along with the sample results to which they apply, including the method, equipment, analytical detection and quantification limits, percent recovery, and an explanation for any recovery that falls outside the QC limits, the results of the method and equipment blanks, the results of spiked and surrogate samples, the frequency of quality control analysis, and the name and qualifications of the person(s) performing the analyses. Sample results shall be reported unadjusted for blank results or spike recoveries. In cases where contaminants are detected in QA/QC samples (e.g., field, trip, or lab blanks), the accompanying sample results shall be appropriately flagged.

The Permittees shall make all QA/QC data available for inspection by Los Angeles Water Board staff and submit the QA/QC documentation with its respective monitoring report. Proper chain of custody procedures must be followed, and a copy of that documentation shall be submitted with the monitoring report.

15. Treatment Failure

In an enforcement action, it shall not be a defense for the Permittees that it would have been necessary to halt or to reduce the permitted activity in order to maintain compliance with this Order. Upon reduction, loss, or failure of the treatment facility, the Permittees shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored, or an alternative method of treatment is provided. This provision applies, for example, when the primary source of power of the treatment facility fails, is reduced, or is lost (CWC section 13263, subdivision (f)).

16. Discharge to Navigable Waters

Any person discharging or proposing to discharge to navigable waters of the United States within the jurisdiction of this state or a person who discharges dredged or fill material or proposes to discharge dredged or fill material into navigable waters of the United States within jurisdiction of this state, shall file a report of waste discharge in compliance with the procedures set forth in CWC section 13260 (CWC section 13376).

17. Endangerment to Health and Environment

The Permittees shall report any noncompliance which may endanger health or the environment. Any such information shall be provided verbally to the Executive Officer within 24 hours from the time the Permittees become aware of the circumstances. A written submission shall also be provided within five days of the time the Permittees become aware of the circumstances. The written submission shall contain a description and times, 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 Executive Officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. The following occurrence(s) shall be reported to the Executive Officer within 24 hours:

- 17.1. Any bypass from any portion of the treatment facility;
- 17.2. Any discharge of treated or untreated wastewater resulting from sewer line breaks, obstruction, surcharge or any other circumstances; and
- 17.3. Any treatment plant upset which causes the effluent limitation of this order to be exceeded (CWC sections 13263 and 13267).

18. Maintenance of Records

The Permittees shall retain records of all monitoring information including all calibration and maintenance records, all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of three years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Los Angeles Water Board Executive Officer.

Records of monitoring information shall include:

- 18.1. The date, exact place, and time of sampling or measurements;
- 18.2. The individual(s) who performed the sampling or measurements;
- 18.3. The date(s) analyses were performed;
- 18.4. The individual(s) who performed the analyses;
- 18.5. The analytical techniques or method used; and
- 18.6. The results of such analyses.

19. Signatory Requirements

- 19.1. All application reports or information to be submitted to the Executive Officer shall be signed and certified as follows:

- 19.1.1. For a corporation – by a principal executive officer or at least the level of vice president.
 - 19.1.2. For a partnership or sole proprietorship – by a general partner or the proprietor, respectively.
 - 19.1.3. For a municipality, state, federal or other public agency – by either a principal executive officer or ranking elected official.
- 19.2. A duly authorized representative of a person designated in paragraph (a) of this provision may sign documents if:
- 19.2.1. The authorization is made in writing by a person described in paragraph (a) of this provision.
 - 19.2.2. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity.
 - 19.2.3. The written authorization is submitted to the Executive Officer.

Any person signing a document under this section shall make the following certification:

“I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those 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. (CWC Sections 13263, 13267, and 13268).”

20. Operator Certification

Supervisors and operators of water recycling treatment plants 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 (23 CCR § 3680). In lieu of a properly 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).

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP) CI-10735

TABLE OF CONTENTS

| | |
|--|------|
| 1. General Monitoring and Reporting Requirements | E-2 |
| 2. Monitoring Requirements | E-5 |
| 2.1. Monitoring Locations..... | E-5 |
| 2.2. Influent Monitoring | E-5 |
| 2.3. Recycled Water Monitoring..... | E-6 |
| 2.4. Groundwater Monitoring | E-8 |
| 3. Use Area Monitoring..... | E-9 |
| 4. Reporting Requirements | E-9 |
| 4.1. General Reporting Requirements | E-9 |
| 4.2. Quarterly Monitoring Reports..... | E-10 |
| 4.3. Annual Reports | E-11 |
| 4.5. Dual-Plumbed Recycled Water Systems Testing/Monitoring..... | E-13 |
| 5. Report Submittal Dates | E-14 |
| 6. Certification Statement..... | E-15 |
| 7. Operations and Maintenance Manual..... | E-15 |
| 8. Climate change Vulnerability Assessment and Management Plan | E-15 |

TABLE OF TABLES

| | |
|---|------|
| Table E-1. Monitoring Locations..... | E-5 |
| Table E-2. Influent Monitoring | E-6 |
| Table E-3. Recycled Water Monitoring..... | E-7 |
| Table E-4. Use Area Monitoring | E-9 |
| Table E-5. Dual-Plumbed Systems Testing/Monitoring..... | E-13 |
| Table E-6. Monitoring Periods and Reporting Schedule..... | E-14 |

Attachment E – Monitoring and Reporting Program (MRP) CI-10735

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 Waste Discharge Requirements (WDRs) and Water Reclamation Requirements (WRRs) Order No. R4-2023-0357 for the Hyperion Advanced Water Purification Facility (HAWPF or Facility). The City of Los Angeles Bureau of Sanitation (LASAN) owns and operates the HAWPF through Los Angeles Sanitation and Environment (LASAN) and the recycled water distribution system through Los Angeles Department of Water and Power (LADWP), respectively. The responsibilities of each agency is determined through interagency agreements, but this MRP refers to both LASAN and LADWP as Permittees and both agencies are responsible for compliance with this Order. The Permittees 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 Permittees shall monitor the following according to the manner and frequency specified in this MRP:
 - 1.1.1. Influent to the HAWPF.
 - 1.1.2. Advanced treated recycled water produced at the HAWPF.
- 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.
 - Copy of laboratory certifications by the California State Water Resources Control Board (State Water Board), Division of Drinking Water's (DDW) Environmental Laboratory Accreditation Program (ELAP).
 - A summary of quality assurance and control (QA/QC) measures, including documentation of chain of custody.
 - Applicable effluent limitation or water quality objective.
 - A summary of noncompliance during the monitoring period.
- 1.3. The Permittees 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.

1.4. The Permittees shall notify this Los Angeles Water Board and DDW by telephone [Jeong-Hee Lim at (213) 576-6616 and Chi Diep at (818) 551-2016] or electronic means (losangeles@waterboards.ca.gov and DDWRegion4@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 141 of title 40 of the Code of Federal Regulations (40 CFR § 141); 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 Permittees 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. Analyses for chemicals other than those with primary MCLs and secondary MCLs, the Permittees shall select methods based on the following approach:

1.6.1. Use the drinking water methods or wastewater methods sufficient to evaluate all water quality objectives and protect all beneficial uses.

1.6.2. Use DDW-recommended methods for unregulated chemicals, if available.

1.6.3. If there is no DDW-recommended drinking water method for a chemical, and more than a single United States Environmental Protection Agency (USEPA)-approved method is available, use the most sensitive of the USEPA-approved method.

1.6.4. 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.

- 1.6.5. If no approved method is available for a specific chemical, the Permittees' laboratory may develop or use its own methods and should provide the analytical methods to DDW for review. Those methods may be used until DDW-recommended or USEPA-approved methods are available.
- 1.6.6. If the only method available for a chemical is for wastewater analysis (e.g., a chemical listed as a priority pollutant only), that chemical will be sampled and analyzed using wastewater methods specified in 40 CFR § 136. This approach will be used until a DDW-recommended or USEPA-approved drinking water method is available.
- 1.7. The Permittees 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.
- 1.8. For regulated constituents, the laboratory conducting the analyses shall be certified by the ELAP or approved by DDW or the Los Angeles Water Board.
- 1.9. Upon request by the Permittees, 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 § 141;
 - 1.9.2. When the method under 40 CFR § 141 for the pollutant has an MRL higher than the limit specified in this Order; or
 - 1.9.3. When the Permittees agree to use a test method that is more sensitive than those specified in 40 CFR § 141.
- 1.10. Samples shall be analyzed within allowable holding time limits as specified in 40 CFR § 141. All QA/QC analyses shall be conducted on the same dates the samples are analyzed. The Permittees 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.
- 1.11. Each monitoring report shall include a separate section titled "Summary of Non-compliance" which discusses the compliance record and corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with discharge requirements as well as all excursions of the final effluent limitations.
- 1.12. 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, fecal

coliform, and *Escherichia coli* (*E. coli*), at a minimum, and 1 to 1000 per 100 ml for *Enterococcus*). The detection methods used for each analysis shall be reported with the results of the analyses.

- 1.13. All samples shall be representative of the waste discharge under conditions of peak load. Results of monthly, quarterly, semiannual, and annual analyses shall be reported by the due date specified in Table E-6. The Permittees shall schedule monitoring so that the different seasons (summer, spring, winter, fall) are represented in the quarterly and semiannual monitoring throughout the year. If the Permittees sample in the same season two quarters in a row, the Permittees shall include in the monitoring report the reasons monitoring could not be conducted in separate seasons.

2. MONITORING REQUIREMENTS

2.1. Monitoring Locations

The Permittees shall establish the following monitoring locations to demonstrate compliance with the recycled water discharge limitations and other requirements in this Order. Should the need for a change in the sampling station(s) arise in the future, the Permittees shall seek approval of the proposed station by the Executive Officer prior to use.

Table E-1. Monitoring Locations

| Monitoring Location Name | Description |
|--------------------------|--|
| INF-001 | The influent monitoring location shall be located immediately before the headworks to the HAWPF, where a representative sample of the influent can be obtained. |
| EFF-001 | The effluent monitoring location shall be located downstream of any in-plant return flows, the final disinfection process, and after stabilization where representative samples of the effluent can be obtained. |

2.2. Influent Monitoring

2.2.1. Influent monitoring is required to determine compliance with water quality conditions and standards and to assess HAWPF performance.

2.2.2. The Permittees shall monitor the pollutants in Table E-2 at the influent monitoring location (INF-001) described in Table E-1.

The following shall constitute the influent monitoring program.

Table E-2. Influent Monitoring

| Constituent | Units | Type of Sample | Minimum Frequency of Analysis | Notes |
|---|-----------------|-----------------------|--------------------------------------|--------------|
| Total influent flow | MGD | recorder | continuous | a |
| Total volume | million gallons | calculated | monthly | -- |
| Biochemical oxygen demand at 20 degrees Celsius (BOD ₅ 20°C) | mg/L | 24-hour composite | weekly | -- |
| Total suspended solids (TSS) | mg/L | 24-hour composite | weekly | -- |
| pH | standard units | grab | weekly | -- |
| Nitrate + Nitrite (as N) | mg/L | 24-hour composite | quarterly | -- |
| Nitrate as (as N) | mg/L | 24-hour composite | quarterly | -- |
| Nitrite (as N) | mg/L | 24-hour composite | quarterly | -- |
| Total dissolved solids (TDS) | mg/L | 24-hour composite | quarterly | -- |
| Chloride | mg/L | 24-hour composite | quarterly | -- |
| Sulfate | mg/L | 24-hour composite | quarterly | -- |
| Boron | mg/L | 24-hour composite | quarterly | -- |

Footnotes for Table E-2

a. The monthly minimum and maximum, and daily average values shall be reported.

End of Footnotes for Table E-2

2.3. Recycled Water Monitoring

2.3.1. 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.

2.3.2. The Permittees shall monitor the advanced treated recycled water used for non-potable use at monitoring location EFF-001. The monitoring location is described in Table E-1. The parameters to be monitored and monitoring frequencies are listed in Tables E-3.

The following shall constitute the recycled water monitoring program:

Table E-3. 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 flow to each end user | MGD | recorder | continuous | a |
| Recycled water volume to each end user | million gallons | calculated | monthly | -- |
| pH | standard units | recorder | continuous | a |
| Turbidity | NTU | recorder | continuous | b |
| Total coliform | MPN/100 mL | grab | daily | c |
| Total chlorine residual | mg/L | recorder | continuous | a |
| Oil and grease | mg/L | grab | quarterly | -- |
| Settleable solids | mL/L | grab | weekly | -- |
| BOD ₅ 20°C | mg/L | 24-hour composite | weekly | |
| TSS | mg/L | 24-hour composite | weekly | -- |
| TDS | mg/L | 24-hour composite | quarterly | -- |
| Sulfate | mg/L | 24-hour composite | quarterly | -- |
| Chloride | mg/L | 24-hour composite | quarterly | -- |

| Constituent | Units | Type of Sample | Minimum Frequency of Analysis | Notes |
|------------------------------|--------|-------------------|-------------------------------|-------|
| Boron | mg/L | 24-hour composite | quarterly | -- |
| Nitrate + nitrite (as N) | mg/L | 24-hour composite | quarterly | -- |
| Nitrate (as N) | mg/L | 24-hour composite | quarterly | -- |
| Nitrite (as N) | mg/L | 24-hour composite | quarterly | -- |
| Priority Pollutants | varies | varies | annually | d & e |
| Pollutants with Primary MCLs | varies | varies | annually | d & f |

Footnotes for Table E-3

- a. The monthly minimum and maximum, and daily average values shall be reported.
- b. The turbidity shall not exceed any of the following: 1) 0.2 NTU more than 5% of the time (72 minutes) within a 24-hour period, 2) 0.5 NTU at any time (22 CCR § 60301.320).
- c. Samples shall be collected seven days per week unless otherwise specified.
- d. After three years of annual monitoring for priority pollutants and pollutants with primary MCLs (including pollutants for which primary MCLs are developed in the future), the Permittees may consult with the Los Angeles Water Board to discuss the water quality results. If the Los Angeles Water Board determines a reduction or elimination of monitoring is warranted, the Executive Officer of the Los Angeles Water Board may approve a reduction in monitoring frequency or elimination of this monitoring requirement.
- e. The list of Priority Pollutants is provided in Appendix A to 40 CFR 423.
- f. The list of pollutants with primary MCLs is provided in 22 CCR § 64431, § 64672.3, § 64442, § 64443, § 64444, and § 64533.

End of Footnotes for Table E-3

2.4. 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 therefore does not require groundwater monitoring. The Permittees plan to use recycled water for irrigation and is required in section 8.8 to apply recycled water at reasonable agronomic rates and shall consider soil, climate, and nutrient demand.

3. USE AREA MONITORING

The Permittees are responsible for ensuring use area data is collected and submitted in the annual report. The following shall be recorded for each user 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:

Table E-4. 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 |
| Soil saturation and ponding | -- | observation | quarterly | annually |
| Nuisance odors/vectors | -- | observation | quarterly | annually |
| Discharge off-site | -- | observation | quarterly | annually |
| Notifications (note a) | -- | observation | quarterly | annually |

Footnotes for Table E-4

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

End of Footnotes for Table E-4

4. REPORTING REQUIREMENTS

The Permittees shall submit the required reports, outlined in this section, to the State Water Board’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 Minimum 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 Permittees sample and perform 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.
- 4.1.5. The Los Angeles Water Board or DDW may request supporting documentation, such as daily logs of operations.
- 4.1.6. The Permittees shall electronically submit all reports and monitoring data required under these WDRs to the State Water Resource Control Board's GeoTracker database. All reports shall reference Compliance File No. CI-10735 and shall be uploaded under Global ID WDR100055800. 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 Boards' website](#).
- 4.1.7. The Permittees 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 including influent and HAWPF 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. A table listing the users serviced during the quarter, the amount of recycled water delivered to each user (reported in both gallons and in acre-feet), and the use of the recycled water.
- d. The date and time of sampling and analyses.
- e. All analytical results of recycled water samples collected during the monitoring period.
- f. The USEPA analytical method used, the MDL, and the reporting detection limit (RDL) for each constituent analyzed.
- g. The applicable DDW conditions or permit limitations.
- h. 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.
- i. The name(s) of the laboratory that conducted the analyses and a copy of laboratory certifications from DDW's ELAP.
- j. 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.
- k. Discussion of compliance, noncompliance, or violation of requirements.
- l. 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 on the operation of any unit processes or facilities shall be provided.
- f. A summary of the measures taken to comply with the wastewater source control program and the effectiveness of the implementation of the measures.
- g. A list of the analytical methods used for each test and associated laboratory quality assurance/quality control procedures shall be included. The report shall identify the laboratories used by the Permittees to monitor compliance with this Order, their status of certification, and provide a summary of their proficiency test.
- h. A list of current operating personnel, their responsibilities, and their corresponding grade and date of certification.
- i. 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.
- j. A summary table of all inspections and enforcement activities initiated by the Permittees. 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 Permittees shall be provided.
- k. An evaluation of the performance of the recycled water system for the HAWPF 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.

4.5. Dual-Plumbed Recycled Water Systems Testing/Monitoring

For dual-plumbed systems, DDW and/or its delegated local agency shall be consulted for additional reporting, design, and operation requirements. The potential for cross-connections and backflow prevention devices shall be monitored as listed below, or more frequently if specified by DDW.

Table E-5. Dual-Plumbed Systems Testing/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 E-5

- 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 17 CCR § 7605.

End of Footnotes for Table E-5

5. REPORT SUBMITTAL DATES

Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-6. Monitoring Periods and Reporting Schedule

| Sampling frequency | Monitoring period begins on | 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. CERTIFICATION STATEMENT

Each report shall include the following 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)

7. OPERATIONS AND MAINTENANCE MANUAL

The Permittees shall submit an Operations and Maintenance Manual (OMM) for the recycled water system and submit it to the Los Angeles Water Board and DDW within 180 days of the effective date of this Order. The OMM shall include at a minimum process optimization, alarm set points, diversion and off-spec contingencies, instrument calibration and maintenance.

8. CLIMATE CHANGE VULNERABILITY ASSESSMENT AND MANAGEMENT PLAN

The Permittees shall develop a Climate Change Effects Vulnerability Assessment and Management Plan (Climate Change Plan) and submit the Climate Change Plan to the Los Angeles Water Board for the Executive Officer’s approval no later than 12 months after the effective date of this Order. The Climate Change plan shall include an assessment of short-term and long-term vulnerabilities of the HAWPF, all treatment systems, the collection system, recycled water distribution system, outfalls, and operations for predicted impacts to ensure that the facility operations are not disrupted, compliance with permit conditions is achieved, and receiving waters are not adversely impacted by discharges. Control measures shall include, but are not limited to, emergency procedures, contingency plans, alarm/notification systems, training, backup power and equipment, and the need for planned mitigation measures to ameliorate climate-induced impacts including, but not limited to changing influent and receiving water quality conditions, as well as the impact of rising sea level (where applicable), wildfires, storm surges, and back-to-back severe storms that are expected to become more frequent.

ATTACHMENT F – DDW CONDITIONAL ACCEPTANCE LETTER



State Water Resources Control Board
Division of Drinking Water

April 8, 2019

Jeong-Hee Lim, Chief
Municipal Permitting Unit
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013

**SUBJECT: CONDITIONAL ACCEPTANCE OF TITLE 22 ENGINEERING REPORT FOR THE
HYPERION ADVANCED WATER PURIFICATION FACILITY (1990022-707)**

Dear Ms. Lim,

The State Water Resources Control Board's Division of Drinking Water (Division) has received and reviewed the second draft of the Title 22 Engineering Report (Report) prepared by the City of Los Angeles (City), dated February 2019, for the production and application of advanced treated recycled water from Hyperion Advanced Water Purification Facility (HAWPF) for non-potable reuses. This revision of the Report addresses the comments raised by the Division in its comment letter dated September 7, 2018 and subsequent communications.

This letter transmits the Division's conditional acceptance of the revised Report. The City must submit a supplementary Engineering Report along with necessary information and drawings to the Division for review and acceptance, if any changes to the information presented in the current Report are considered in the future. Before start of operations, the City must submit an Operation and Maintenance Manual to the Division for review.

If you have any questions regarding this letter, please contact Mr. Juan Arriola at (818) 551-2034 or myself at (818) 551-2016.

Sincerely,

A handwritten signature in black ink, appearing to read "Chi Diep".

Chi Diep, P.E.
District Engineer
Metropolitan District

JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

500 North Central Avenue, Suite 500, Glendale, CA 91203 | www.waterboards.ca.gov

RECYCLED PAPER



State Water Resources Control Board
Division of Drinking Water

October 25, 2021

Jeong-Hee Lim, Chief
Municipal Permitting Unit
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013

SUBJECT: CONDITIONAL ACCEPTANCE OF REVISED TITLE 22 ENGINEERING REPORT FOR THE HYPERION ADVANCED WATER PURIFICATION FACILITY (1990022-707)

Dear Dr. Lim,

The State Water Resources Control Board's Division of Drinking Water (Division) has received and reviewed the revised Title 22 Engineering Report (Report) prepared by the City of Los Angeles (City), dated September 2021, for the production and application of advanced treated recycled water from Hyperion Advanced Water Purification Facility (HAWPF) for non-potable reuses. The Division had previously issued a conditional acceptance letter for this project on April 8, 2019. The Division was informed of design changes made to the original engineering report on March 15, 2021. Subsequently, the Division requested additional information which the City provided to the satisfaction of the Division.

This letter transmits the Division's conditional acceptance of the revised Report dated September 2021. The City must submit a supplementary Engineering Report along with necessary information and drawings to the Division for review and acceptance, if any changes to the information presented in the current Report are considered in the future. Before start of operations, the City must submit an Operation and Maintenance Manual to the Division for review.

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

500 North Central Avenue, Suite 500, Glendale, CA 91203 | www.waterboards.ca.gov

Jeong-Hee Lim, Chief

- 2 -

October 25, 2021

If you have any questions regarding this letter, please contact Mr. Juan Arriola at (818) 551-2034 or me at (818) 551-2016.

Sincerely,

 Digitally signed by
Chi Diep
Date: 2021.10.25
10:27:56 -07'00'

Chi Diep, P.E.
District Engineer
Metropolitan District

Cc: Abraham Razon (LA City Bureau of Sanitation via email)
Steven Webb (LARWQCB via email)
Ginachi Amah (RWU via email)