

Response to Comments

City of Los Angeles
Hyperion Advanced Water Purification Facility (HAWPF)
Tentative Waste Discharge Requirements and Water Reclamation Requirements

This Table describes all significant comments received from interested persons regarding the tentative permit. Each comment has a corresponding response and action taken.

Comments received from the City of Los Angeles on September 8, 2023

No.	Comment	Response	Action Taken
1	<p>Section 7.4.5, page 18. LASAN seeks clarification as to what industrial wastewater from HWRP is pertaining to. Please note that other than inflow into the collection system, HWRP only treats stormwater from its internal storm drain system during rain events. Does this mean industrial wastewater from industries (40 CFR 403) discharging to the collection system or industrial wastewater generated from within HWRP?</p>	<p>The HWRP supplies wastewater to the HAWPF, and LASAN administers a pretreatment program consistent with 40 CFR 403 for its water reclamation plants. Industrial wastewater in this section of the permit refers to wastewater originating from industrial and commercial properties regulated under LASAN’s pretreatment program.</p>	None necessary.
2	<p>Section 11.1, page 27. LASAN recommends on adding “Bypass” affirmative defense language for additional clarification. “Bypass – The intentional diversion of waste streams from any portion of a treatment facility is prohibited unless the bypass was the only feasible alternative to prevent loss of life, personal injury, or severe property damage.”</p>	<p>The requested language is inappropriate for this permit because the influent to the HAWPF can be controlled, and if the recycled water is not treated to the appropriate water quality, this can pose unnecessary risks to public health. If an issue arises in which the discharger needs to bypass a treatment process and cannot meet the requirements in this Order, the discharger has several options such as shutting down the HAWPF or discharging the bypass to the Hyperion Water Reclamation Plant. Under no circumstances shall there be a need to discharge bypassed water to recycled water users.</p>	None necessary.

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3	Section 13.12, page 31. LASAN seeks clarification on the “hours” of recycled water use for landscape or crop irrigation.	As indicated in this requirement, the “hours” of recycled water use for landscape or crop irrigation refer to periods of time when the public is not present. The purpose of this requirement is to limit human exposure to the recycled water being applied to the use area. This section was revised to clarify the requirement.	Revision was made to the Order.
4	Section 15.2, page 34. LASAN recommends providing a timeframe as to when permittees are supposed to submit the Operation & Maintenance Manual prior to using recycled water.	The Operation & Maintenance Manual can be submitted any time as long as it is prior to using the recycled water.	None necessary.
5	Section 16.5, page 36. LASAN requests to add additional directive on the timeframe upon knowledge of the incident.	The required timeframe for this requirement is “immediate,” meaning the instant the discharger confirms the results of a coliform test that may cause a violation of the permit requirements, the discharger shall notify both the Los Angeles Water Board and DDW of the result.	None necessary.

No.	Comment	Response	Action Taken
6	<p>The discharger requested to add the following clarifying language to the corresponding sections in the Order:</p> <ul style="list-style-type: none"> • Section 1.2, page 5. “A set of two pumps will be installed on the operating floor of each side of the IPS influent channel.” • Section 1.2, page 7. “...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.” • Section 1.2, page 7. “The waste streams from drains, screenings, overflows, and neutralization that require disposal will be discharged back to the IPS influent channel with proper care to avoid recirculation.” • Section 8, page 24. “The primary effluent is predominantly composed of wastewater from residential, commercial, and industrial users.” • Section 8, page 24. Correct “effluent” to “influent.” • Section 13.21, page 32. “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.” 	<p>Los Angeles Water Board agrees to clarify the language in the referenced sections.</p>	<p>Revisions were made to the Order.</p>

No.	Comment	Response	Action Taken
7	<p>Attachment D, Section 20, page D-7. LASAN seeks clarification on Operator Certification if this specifically pertains to Advanced Water Treatment Operator (AWTO) or Water Treatment Operator (WTO).</p>	<p>The Discharger is required to have supervisors and operators with certification appropriate for the type of facility. The tentative Order's requirements for operator certification are based on 23 CCR § 3680 and 23 CCR § 3670.1. Operators of wastewater treatment plants, including any facility that meets the definition of a water recycling treatment plant (Water Code §13625(g); CCR § 3670), may only be persons who have received State Water Board wastewater treatment plant operator certification or persons with certification as a (drinking) water treatment plant operator in accordance with 23 CCR § 3670.1(b). Water treatment plant operator certification is now provided by the State Water Board. The comment refers to the California-Nevada Section of the American Water Works Association/California Water Environment Association, Advanced Water Treatment Operator (AWTO) certification, for which an operator must already hold a Grade 3 certification for WWTP operator or water treatment plant operator in California. Since AWTO certification is not offered by the State Water Resources Control Board Office of Operator Certification, Section 20 of Attachment D does not apply to AWTO certification.</p> <p>The permit was revised to clarify that the drinking water plant operator certification program was transferred from the Department of Public Health to the State Water Board. Since 23 CCR § 3670.2 was repealed, this reference in the permit for was also corrected.</p>	<p>Revisions were made to the Order.</p>

No.	Comment	Response	Action Taken
8	<p>Footnotes for Table E-3, footnote f, page E-8. LASAN recommends LARWQCB to provide additional directive when new pollutants are added or MCLs are lowered.</p>	<p>If primary MCLs are developed for additional pollutants, the Discharger shall monitor these additional pollutants annually for a minimum of three years. After three years of data are collected, the Discharger may consult with the Los Angeles Water Board to discuss whether a reduction or elimination of monitoring for those pollutants is appropriate. This directive has been added to footnote d of Table E-3. If MCLs are updated, the Los Angeles Water Board will notify the Discharger if additional monitoring is required for that pollutant.</p>	<p>Revisions were made to the Order.</p>
9	<p>Table E-2, page E-6 and Table E-3, page E-7. LASAN acknowledges that the WDR/WRR Order requires recycled water to meet groundwater quality objectives. The HAWPF is projected to produce advanced purified water that meets groundwater quality objectives for nitrogen compounds, chloride, sulfate, and boron. In addition, irrigation is a potential future use that is being considered by HWRP. If HWRP decides to irrigate with recycled water in the future, best practicable treatment and control practices (apply recycled water at agronomic rates, consider soil, climate, nutrient demand, etc.) will be implemented. Consequently, there will be no significant impact to groundwater even if HWRP decides to irrigate. Therefore, LASAN requests to conduct quarterly monitoring for nitrogen compounds, chloride, sulfate, and boron as opposed to monthly since irrigation is considered as a future use for HWRP.</p>	<p>Since the HAWPF recycled water will be used for non-potable uses and the discharger will be implementing best practicable treatment and control practices, the impact the recycled water will have on the groundwater will be minimal. Since the use of recycled water will have minimal impact to the groundwater and the projected salt and nutrient concentrations from the facility are below the water quality objectives, the Los Angeles Water Board agrees to reduce the monitoring frequency for salts and nutrients to quarterly.</p>	<p>Revisions have been made to the Order.</p>

No.	Comment	Response	Action Taken
10	<p>Section 11.14 of the Order, page 28. LASAN requests to delete the “changes to the influent temperature” as part of the impact to the wastewater treatment facility’s operation. Taking influent temperature samples is not a requirement for the HAWPF permit and therefore no sufficient data will be used to assess the impact of climate change in relation to the influent water temperatures.</p>	<p>Changes to the influent temperature may impact the wastewater treatment facility’s operation, water supplies, its collection system, and water quality. Although monitoring temperature in the influent to the HAWPF is not required, the Discharger should project how the influent temperature may change in the future as a result of climate change. If the influent temperature is projected to increase to a point that may impact the operations of the HAWPF, the Discharger should have a plan to mitigate the issue to prevent disturbances in recycled water production.</p>	None necessary
11	<p>Section 2 of the Order, Table 3, page 8. LADWP requests to delete LADWP as a recycled water user under Industrial boiler feedwater and cooling towers makeup water.</p>	<p>The Los Angeles Water Board agrees.</p>	Revisions were made to the Order.
12	<p>LASAN noted some typographical errors and requested that they be corrected.</p>	<p>The typographical errors flagged by LASAN have been corrected unless otherwise noted in the responses above.</p>	Revisions have been made to the Order.

Comments received from Heal the Bay and Los Angeles Waterkeeper on September 11, 2023

No.	Comment	Response	Action Taken
1	<p>LASAN is investing in a complex system of fine screens, membrane bioreactors, reverse osmosis (RO), UV disinfection/advanced oxidation, and post-treatment stabilization to process 2 million gallons per day (mgd) of recycled water from the HWRP. The Tentative WDR outlines intended uses for the final product water, to be used exclusively at the Los Angeles International Airport (LAX), which will help demonstrate the viability of advanced water recycling at Hyperion in greater quantities in the future. Some product water will be used for toilet flushing and on-site irrigation, but the majority will be used for industrial purposes (e.g., feedwater, dilution, and cooling towers). While we understand the need to phase in the use of recycled water, the advanced purification process with RO and membrane bioreactors creates recycled water of a sufficient quality that is usable for far more purposes, including potable uses. Given the extensive list of potential uses outlined in Section 12.1 of the Tentative WDR, copied below, LASAN must continually investigate during the permit term whether more should be done with this product water, with a focus on responsible use of reclaimed water that offers multiple benefits that support ecosystem health, primarily in the on-site use of water for irrigation of functional vegetation.</p>	<p>As described in Section 2 of the Order, the recycled water that will be produced at the HAWPF will be used for a variety of non-potable uses, including landscape irrigation at the HWRP. Although the use of recycled water for industrial processes and dual-plumbed systems may not support the ecosystem around the facility or be used for indirect potable reuse, it does reduce the city's dependence on imported water and local groundwater. A reduction in the need to import water reduces greenhouse gas emissions due to transporting potable water over long distances, and any water that is not imported to southern California helps support ecosystems in other parts of California. The use of recycled water for these nonpotable uses also reduces the need to pump local groundwater by creating a new local source of water, thereby reducing the need to pump groundwater for these uses. Therefore, each of the uses of recycled water described in the Order will have an impact on the ecosystems and groundwater in California, whether it be from irrigation or from simply using this new local water supply. LASAN is also currently developing more recycled water capacity through its OperationNEXT and Hyperion 2035 program, which will address LASAN's indirect potable and potable reuse options. The design capacity of the HAWPF is based on the current non-potable needs described in the Tentative Order.</p>	None necessary.

No.	Comment	Response	Action Taken
2	<p>Regulation of water quality has not kept up with the annual production of new chemicals in use. The Water Quality Control Policy for Recycled Water states that “[p]ermits for recycled water projects shall be consistent with any applicable monitoring requirements prescribed in Attachment A...” of the policy. We understand that the Regional Board does not believe there is a need for CEC monitoring requirements in the Tentative WDR because the purification system includes RO. However, Section 5.1 of the Water Quality Control Policy for Recycled Water outlines requirements for evaluation of performance indicator CECs, including an initial assessment to monitor and confirm CEC removal.</p> <p>We strongly urge the Regional Board to include in the Tentative WDR a robust and diverse list of CECs with method detection limits along with monthly monitoring requirements for a period of three years. At a minimum, the Regional Board should require monthly monitoring of the product water for whole effluent toxicity (WET), using the test for significant toxicity (TST) analytical method, to ensure treatment effectiveness and operation performance.</p>	<p>This Order was prepared following the Uniform Statewide Recycling Criteria in California Code of Regulations, Title 22, Division 4, Chapter 3, and the <i>Water Quality Control Policy for Recycled Water</i> (Recycled Water Policy). Neither the Title 22 regulations or the Recycled Water Policy require monitoring of CECs or whole effluent toxicity for the non-potable uses permitted in the Tentative Order. Only groundwater recharge recycled water projects are required to include a CECs monitoring program and no recycled water projects are required to have WET testing under Title 22 or the Recycled Water Policy. The Tentative Order also requires a minimum of three years of monitoring for pollutants with primary MCLs because even though the recycled water will be applied at agronomic rates during irrigation, some of the recycled water may still percolate into the connected groundwater basins and the impact cannot be isolated to a specific area. In addition, this is a new facility without historic data. Three years of annual monitoring of MCLs are needed to evaluate the impacts irrigation may have on the groundwater basins. Since the use of recycled water is expected to have a minimal impact on groundwater quality, CEC monitoring and WET testing are inappropriate to include in this Order at this time. An additional purpose of WET testing is to ensure the protection of aquatic life, but because this permit does not authorize discharge of the recycled water to a surface water, WET testing is appropriately not a requirement in this Order. After LASAN develops a groundwater recharge project, the Los Angeles Water Board will implement a CEC monitoring program into the permit for that project.</p>	None necessary.

No.	Comment	Response	Action Taken
3	<p>Excess nutrients within the environment and in treated wastewater end up in our waterways and can lead to eutrophic conditions. As these excess nutrients inevitably make their way to the common body of water that all watersheds of the LA Basin flow to, the Pacific Ocean, they pose additional risks to the Southern California coastal ecosystem including proliferation of harmful algal blooms and even exacerbation of ocean acidification. The resulting loss of marine life, compaction of adequate habitat space, and overall impacts to ecosystem health are devastating. We must do what we can to reduce the discharge of excess nutrients.</p> <p>The contaminant limit for Nitrate as N, currently set at 10 mg/L, is far too high and poses a threat to terrestrial, aquatic, and marine ecosystems. Understanding that the project permitted under this Tentative WDR is only the first step in a much larger city-wide wastewater recycling effort, it is critical that initial regulation is sufficient to ensure responsible and sustainable recycling practices when scaled up. As such, to prevent worsening conditions from ocean acidification in the Southern California Bight, the limit for Nitrate as N should be no more than 4 mg/L. This revised limit for Nitrate as N is achievable, as other cities have committed to it,6 and will be protective of water quality.</p>	<p>The commenter did not include a basis for including a more stringent recycled water limitation for nitrate, other than that it is feasible. The nitrate as N recycled water limit of 10 mg/L for recycled water is established based on the applicable water quality objective in the <i>Water Quality Control Plan: Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties</i> (Basin Plan) Chapter 3. The Tentative Order requires the Dischargers to apply recycled water at agronomic rates and to implement controls to minimize runoff (section 13.8 of the Order), and the Tentative Order also prohibits runoff to surface waters (section 13.9 of the Order). The recycled water from this facility is therefore not expected to impact aquatic life. The recycled water limitation for nitrate in the Tentative Order is protective of the groundwater basin because it is equivalent to the water quality objective in the Basin Plan.</p>	<p>None necessary.</p>