



Los Angeles
Department of
Water & Power

RESOLUTION NO. _____

INFORMATIONAL BOARD LETTER

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DATE: October 16, 2024

SUBJECT: Semi-Annual Report No. 6 for Memorandum of Agreement with the Los Angeles Department of Public Works Bureau of Sanitation and Environment Regarding the Construction and Performance Validation of the Hyperion 1.5 MGD Advanced Water Purification Facility Project

SUMMARY

On June 22, 2021, LADWP Board of Water and Power Commissioners (Board) approved the Memorandum of Agreement (MOA) with the Los Angeles Department of Public Works Bureau of Sanitation and Environment (LASAN) to fund up to \$40,000,000, at 50 percent of the total cost of \$80,000,000, for construction and performance validation of the 1.5 Million Gallon Per Day (MGD) Advanced Water Purification Facility (AWPF) at the Hyperion Water Reclamation Plant (HWRP). The MOA term is five years from the effective date of December 14, 2021. As part of the Board approval, staff was instructed to provide Semi-Annual board reports for recurring project updates on status, budget, schedule, and water production. This Report No. 6 is for the reporting period between January 2024 and June 2024. The next report is anticipated for Spring of 2025.

As of August 23, 2023, the Hyperion 1.5 MGD AWPF Project (Project) is at 100 percent construction completion with final acceptance anticipated in late 2024, followed by a performance validation period. Construction expenditures to date are \$70,482,361.29 with a contribution of \$35,241,180.65 from LADWP and \$35,241,180.65 from LASAN. Once complete, the Project will be expected to produce up to 1,681 acre-feet per year

or 1.5 MGD, of Advanced Treated Recycled Water (ATRW) for potable offset reuse at Los Angeles World Airport (LAWA) and within HWRP.

The total project cost, design, and construction is \$92.9 million, with LADWP's funding share not to exceed \$43.2 million, which includes \$40 million for construction and performance validation under the 2021 MOA, and an additional \$3.2 million for design under a previous 2018 MOA. The unit recycled water production cost from the Project is estimated at \$3,642 per acre-foot (AF) and remains unchanged from previous reports.

BACKGROUND

In the Hyperion 1.5 MGD AWPf Project, LADWP partners with LASAN and LAWA to treat 1.5 MGD of HWRP wastewater to produce ATRW that will be distributed to LAX and Hyperion internally to offset potable water demand in the City of Los Angeles (City).

A major LADWP initiative to meet the City's local water supply goals is the Pure Water Los Angeles Water Supply Program (Pure Water Los Angeles). Pure Water Los Angeles aims to maximize recycling of available wastewater from HWRP and produce ATRW for beneficial reuse by the City for groundwater replenishment and direct potable reuse. With expected future production of up to 230 MGD, Pure Water Los Angeles has the potential to meet a significant portion of the City's annual water demand.

Envisioned prior to Pure Water Los Angeles, the Project will serve as a pilot project to inform future modernization and treatment processes needed to maximize treatment of recycled water from the HWRP. This will allow the City to assess and learn from different facets of a water reuse project. These facets include not only technical considerations, but also regulatory, operational, institutional, and financial aspects of an AWPf. The Project will serve as proof-of-concept that the HWRP would be capable of treating reliable recycled water, and in return, ensure water reliability in the future.

AGREEMENT STRUCTURE AND STATUS

Design MOA

MOA WR-17-3002 was fully executed on July 11, 2018, among LADWP, LASAN, and LAWA defining each partner's roles and responsibilities in the design of a 1.5 MGD AWPf at HWRP to supply ATRW to LAWA and HWRP for potable offset. In the 2018 MOA WR-17-3002, LADWP agreed to contribute 70 percent of the total design cost, up to a maximum of \$3,180,140 to LASAN. LASAN retained a design-build contractor to perform the work.

Construction and Performance Validation MOA

At the 70 percent design completion milestone of the Basis of Design Report developed under MOA WR-17-3002 among LADWP, LASAN, and LAWA, the team determined the Project technically feasible based on the production capacity. As a result, LADWP and

LASAN agreed to enter a subsequent construction MOA to provide implementation funding.

On June 22, 2021, LADWP Board approved the Hyperion 1.5 MGD AWPf Construction and Performance Validation MOA with LASAN, and the agreement was fully executed on December 21, 2021. In this agreement, LADWP will fund up to \$40,000,000 for construction and performance validation of the Hyperion 1.5 MGD AWPf Project. The Project's performance validation is anticipated to be complete by Spring of 2025 and produce up to 1.5 MGD of ATRW for local potable offset uses at LAWA and HWRP.

Operation and Maintenance MOA

Upon completion of the Hyperion 1.5 MGD AWPf Project and performance validation period, LADWP and LASAN will negotiate a unit cost of ATRW treatment and define long term operations and maintenance (O&M) responsibilities under a new O&M MOA for the Project. The performance validation period will inform the financial metrics of what it costs to operate a 1.5 MGD AWPf. This MOA is anticipated for LADWP Board consideration in 2025.

PROJECT UPDATES

Major activities and milestones during the reporting period of July 2023 and December 2023 are shown in Table 1 and upcoming activities in the next reporting period are listed in Table 2.

Table 1 Completed Activities

Activity	Description
Project Design	Revised 100 Percent Design Document – 12/15/2021
1.5 MGD AWPf Construction	<u>All Facilities</u> Construction has reached 100% completion – 8/23/2023
Final Acceptance/Commissioning	<u>Permits</u> California Regional Water Quality Control Board Waste Discharge Requirements and Water Reclamation Requirements General Order – 11/13/2023

Table 2 Upcoming Activities

Activity	Description
Final Acceptance/Commissioning	<u>Permits</u> South Coast Air Quality Management District Facility Construction and Operation Permit
	<u>Performance Testing</u> Clean water testing of equipment in all facilities

BUDGET

Since LASAN is the leading implementation agency and hired a design-build contractor, LADWP provides funding contribution and technical oversight to support the Hyperion 1.5 MGD AWPf Project implementation in accordance with the Design and Construction MOAs. Table 3 summarizes the Project budget by phase and LADWP's funding contribution for each. The total estimate cost at completion is \$92.9 million, with LADWP's share not to exceed \$43.2 million.

LADWP's total funding contribution to LASAN for the capital implementation is \$43,180,140 and the future O&M costs is estimated at \$2 million per year based on preliminary assumptions. The cost to LADWP equates to \$3,642 per AF of ATRW production, assuming a 30-year project life. At the end of the Project's life, an additional 25,800 AF of ATRW is anticipated to be reused to offset potable water demand.

Table 3 Budget Summary

Item	Overall LASAN Project Budget	LADWP Project Funding Commitment	LADWP Payment to Date
<i>Design MOA</i>			
Design	\$ 5,656,412	\$ 3,180,140	\$ 3,180,140
<i>Construction & Performance Validation MOA</i>			
Construction	\$ 79,534,569	\$ 36,150,000	\$ 35,241,181
Site Preparation	\$ 5,353,160	\$ 2,650,000	\$ 2,676,580
1.5 MGD AWPf Construction	\$ 74,181,409	\$ 33,500,000	\$ 32,564,601
Post Construction Performance Validation	\$ 7,700,000	\$ 3,850,000	\$ 0
Total	\$ 92,890,981	\$ 43,180,140	\$38,421,321

SCHEDULE

Table 4 provides a schedule summary of each project phase and major milestone with the associated start and completion date. Construction delays due to COVID-19 related supply-chain issues delayed the original construction completion date from March 2023 to August 2023. Additionally, there is a delay in permit procurement from the South Coast Air Quality Management District (AQMD) that has delayed commissioning. Since the last report, AQMD has informed LASAN that the project may proceed with commissioning while awaiting AQMD permit procurement. As a result, preparation is underway for commissioning of the facility.

Table 4 Project Schedule Summary

Activity	Start Date	Completion Date
Planning	<i>2/18/2019</i>	<i>5/29/2019</i>
Notice to Proceed No. 1	<i>5/29/2019</i>	
0 to 70 Percent Design	<i>5/29/2019</i>	<i>10/13/2020</i>
Site Preparation	<i>05/29/2019</i>	<i>06/26/2020</i>
Notice to Proceed No. 2	<i>4/20/21</i>	
Final Design	<i>4/21/2021</i>	<i>12/15/2021</i>
1.5 MGD AWWP Construction	<i>4/21/2021</i>	<i>8/23/2023</i>
Final Acceptance/Commissioning	<i>8/24/2023</i>	<i>10/01/2024*</i>
Post Construction Performance Validation	<i>10/2/2024*</i>	<i>03/1/2025*</i>
<i>*projected dates</i>		