



Los Angeles  
Department of  
Water & Power

RESOLUTION NO. 025 084

BOARD LETTER APPROVAL

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**ANSELMO G. COLLINS**  
Senior Assistant General Manager  
Water System

  
Aram Benyamini (Sep 16, 2024 15:33 PDT)

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**ARAM BENYAMINI**  
Chief Operating Officer

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Chief Executive Officer and Chief Engineer

**DATE:** September 12, 2024

**SUBJECT:** Agreement No. WR-24-1000 with the Los Angeles Department of Public Works, Bureau of Sanitation and Environment for the Groundwater Replenishment Project

**SUMMARY**

Memorandum of Agreement No. WR-24-1000 (Agreement) will authorize the LADWP to reimburse the Los Angeles Department of Public Works, Bureau of Sanitation and Environment (LASAN) up to \$740 million to construct the Groundwater Replenishment Project (GWR) Project. Upon completion of Construction, the Agreement will also authorize LADWP to reimburse LASAN for the Operations & Maintenance (O&M) of the GWR Project for a term of 35 years.

The GWR Project is a collaboration between LADWP and LASAN (Parties), whereby the Parties will build and operate the necessary facilities to produce purified recycled water from the Donald C. Tillman Water Reclamation Plant (DCTWRP). Over the past two years, the Parties have successfully partnered to design one of the largest potable reuse projects in the State of California, and the objective of this Agreement is to complete the GWR Project and provide a new sustainable and locally sourced supply of water to the City of Los Angeles (City) by 2028. The GWR Project includes the construction of several facilities at DCTWRP to produce and maximize the development of purified recycled water. The facilities include an Advanced Water Purification Facility

(AWPF), Equalization Storage Facility, Maintenance and Warehouse Facility, and the Japanese Garden Effluent Bypass (JGE Bypass).

The goal of the GWR Project is to produce up to 22,000 acre-feet per year (AFY) of purified recycled water that will be used entirely by LADWP to replenish the San Fernando Groundwater Basin (SFB). The GWR Project is a transformational step towards achieving the goals of developing local, sustainable, drought-resistant water supplies.

This partnership to initiate the GWR Project was approved by the Board of Water and Power Commissioners (Board) on November 29, 2022, under Agreement WR-22-1000 authorizing the engineering and design of the GWR Project. Agreement WR-22-1000 also stated that upon completion of the engineering and design of the GWR Project, staff would return to the Board to provide an analysis of the project and a recommended path forward.

LADWP and LASAN have substantially completed the design of the GWR Project, and the Parties agree that the Project is technically viable and cost effective, and as a result, the recommendation is to authorize this Agreement to allow for the Construction and O&M of the GWR Project.

City Council approval is required in accordance with Charter Section 373.

This Agreement expires 35 years after execution.

### **RECOMMENDATION**

It is recommended that the Board of Water and Power Commissioners adopt the attached Resolution authorizing execution of the Agreement.

### **ALTERNATIVES CONSIDERED**

Not approving the Agreement will compromise LADWP's ability to achieve the recycled water goals outlined in the 2020 Urban Water Management Plan (UWMP), the Los Angeles Green New Deal (GND), and the Mayor's Executive Directive No. 5 (ED5) goal of increasing local water supplies by utilizing recycled water, including through the GWR Project.

Alternatives to increase non-potable reuse in lieu of the GWR Project were evaluated by the 2012 Recycled Water Master Plan and were determined to be more expensive and not technically viable.

## **FINANCIAL INFORMATION**

LADWP will reimburse LASAN up to \$740 million for the construction of the facilities outlined below, which are all needed to produce and maximize the development of purified recycled water from LASAN's DCTWRP. All the facilities below are located within LASAN's DCTWRP.

This total capital cost of up to \$740 million will be utilized as follows:

- \$495 million for construction of a 30 MGD AWWP with full advanced treatment processes;
- \$130 million for design and construction of an Equalization Storage (EQ) Facility;
- \$20 million for construction of a Maintenance and Warehouse Facility (Maintenance WF);
- \$15 million for construction of the JGE Bypass; and,
- \$80 million for an overall project contingency.

A major financial consideration for the GWR Project is that LADWP has successfully secured nearly \$400 million in external funding support through Federal, State, and local partners for the GWR Project. Below is the funding that has already been secured, and the Parties will continue to pursue additional sources of external funding support to reduce ratepayer impacts.

- \$223,921,010 Water Infrastructure Finance and Innovation Act (WIFIA) Loan from the United States Environmental Protection Agency (USEPA) – The USEPA awarded the City a \$223,921,010 loan for the GWR Project as part of the USEPA's WIFIA.
- \$5,000,000 Grant from the State of California's Water Resources Control Board (SWRCB) – The SWRCB awarded the City a \$5,000,000 grant for the GWR Project as part of the SWRCB's Clean Water: Water Recycling Funding Grant Program.
- \$138,937,750 from the Metropolitan Water District of Southern California (MWD) – The MWD Local Resource Program will provide the City with up to \$138,937,750 of funding for the GWR Project.
- \$30,000,000 Grant from the Bureau of Reclamation – The Bureau of Reclamation awarded the City a \$30,000,000 grant for the GWR Project as part of their Title XVI Large Scale Water Recycling Grant Program.

Following the completion of construction and the start of O&M of the GWR Project, LADWP will reimburse LASAN for all actual O&M costs associated with the production of the purified recycled water from the AWPf. As with other recycled water facilities in the City, upon the start of O&M, LASAN will invoice LADWP monthly for the purified recycled water supplied to LADWP based on an agreed upon recycled water rate. In short, the estimated rate to produce recycled water at the start of operations in 2028 is estimated to be \$1,600 per acre-foot of purified recycled water produced. This rate will be adjusted every year based on reconciliation of actual costs incurred by LASAN.

LASAN also agrees to operate DCTWRP and the AWPf to maximize purified recycled water production and efficiency of its O&M. The Parties have included performance goals for the production of purified recycled water within the Agreement. Failure to achieve the performance goals will result in LASAN sharing the costs of O&M. In addition, the Parties have established a joint Management Oversight Committee (MOC) and Executive Management Committee (EMC) to provide proper oversight of the construction and O&M of the GWR Project.

The Agreement is effective once executed between the Parties and will expire in 35 years.

## **BACKGROUND**

ED5, issued October 14, 2014, specifies City goals to reduce per capita potable water use, reduce purchase of imported water, and create an integrated water strategy that increases local water supplies and improves water reliability. In addition, LA's Green New Deal has specifically identified the GWR Project as a milestone that will allow LADWP to form a more reliable and resilient water supply.

LADWP's 2020 UWMP identifies key strategies consistent with the ED5 and GND goals. A UWMP objective is to utilize 67,600 AFY of recycled water by 2045 to offset imported water. The UWMP identified the GWR Project as key to achieving this goal.

The GWR Project involves the construction of an AWPf at DCTWRP to produce purified recycled water utilizing a state-of-the-art treatment process validated in comparable projects in California and around the world. The purified recycled water will be spread at the Hansen Spreading Grounds, owned and operated by the Los Angeles County Department of Public Works, to replenish the SFB with enough water for 250,000 Angelenos. The replenished water will travel within the SFB for approximately two years before being extracted by LADWP's groundwater extraction wells. All aspects of the project, from the advanced treatment process to the travel time within the SFB, will allow LADWP to exceed the State's potable reuse regulations, and the water produced will be protective of public health.

Over the past 40 years, LADWP and LASAN have been partners in developing the City's recycled water program and have previously collaborated on other recycled water

projects in the City such as the recycled water facilities located at the Terminal Island Water Reclamation Plant (WRP), Los Angeles-Glendale WRP, and Hyperion WRP. The GWR Project is another collaborative recycled water project between the Parties. That said, one distinguishing factor about the GWR Project is that it will be the largest recycled water project in the City to date, and one of the largest in the entire State. As such, the Parties have incorporated lessons learned from previous projects, and this Agreement further improves upon those previous agreements by establishing clear roles and responsibilities, performance goals, joint partnership expectations, and accountability from both Parties. It also should be highlighted that previous recycled water agreements between the Parties provided funding for capital improvements and O&M, and this Agreement allows for this which is also allowed and approved by City Charter.

The Agreement requires LASAN to obtain the necessary contracts to design, construct, and operate the GWR Project. LADWP will support LASAN during the entire GWR Project and will provide oversight to ensure Board approved funds are utilized in accordance with the Agreement. This Agreement also formalizes the continuing partnership between LADWP and LASAN, and ensures that the Parties continue to work collaboratively together to advance the City's overall recycled water goals.

With regard to the scope of the GWR Project, several facilities within LASAN's DCTWRP will be constructed to produce purified recycled water:

1. AWPf: The new AWPf is a 52,000 square foot facility containing the treatment processes producing purified recycled water and a public learning center where community members can learn about the City's water system and potable reuse. The AWPf is designed to purify 25 million gallons per day (MGD) of DCTWRP effluent and can accommodate an expansion of up to 30 MGD.
2. EQ Facility: The new EQ Facility will provide approximately 8 million gallons (MG) of additional equalization capacity to DCTWRP, increasing the total to over 10 MG. Construction of the EQ Facility is necessary to maximize production of purified recycled water by providing constant flow to the AWPf.
3. Maintenance WF: The new Maintenance WF is a 47,000 square foot facility which will be used to provide space for LADWP and LASAN personnel, provide storage space for AWPf equipment, and house electrical, instrument, mechanical, and craft shops supporting the O&M of the GWR Project.
4. JGE Bypass: Upon approval of all necessary permits, the new JGE Bypass will include the construction of 100 feet of 16-inch diameter pipeline and appurtenances within DCTWRP with the objective of diverting 4 MGD of flow to the new AWPf instead of discharging to the Los Angeles River. This project is essential to maximize the production of water from the AWPf. It should be highlighted that upon completion of the JGE Bypass, the City will still supply

approximately 20 MGD of recycled water to the LA River from DCTWRP. The GWR Project will not adversely affect the health of the LA River.

The GWR Project is a large and complex project. To allow for efficient implementation, the facilities described above are each being delivered using a tailored approach prioritizing speed, cost-efficiency, collaboration, and flexibility to achieve project goals. For example, the AWP and the EQ Facility are the most intricately integrated facilities. As a result, the Parties have agreed to implement these Projects utilizing a progressive design-build (PDB) approach. PDB is an innovative project delivery method allowing the design and construction teams to collaborate during the entire project, from the early design phase through construction completion and project validation. PDB allows greater flexibility during the design, fosters collaboration amongst all stakeholders, and provides the City the most innovative and cost-effective Project. Staff recommends and plans to implement the Maintenance WF and JGE Bypass in a traditional design-bid-build approach, which is appropriate given the less complex nature of these facilities.

Upon approval of the Agreement by the Board, LASAN will seek authorization from the City's Board of Public Works by October 2024. LASAN will specifically request authorization to approve the necessary contracts needed to commence construction of the GWR Project. If approved by both Boards, the GWR Project will immediately start construction October 2024, and the Parties anticipate construction to be completed by the end of 2027. In other words, by 2028, the GWR Project will begin operation and is anticipated to produce enough drinking water for 250,000 Angelenos.

As mentioned above, a financial analysis for the Project was performed, and it is estimated that the total cost of producing the purified water compares favorably to other LADWP water supplies. In addition, the GWR Project has the added benefit of being a drought-resistant and local drinking water supply.

Given the size, complexity, and importance of this undertaking by the City, LADWP staff will return to the Board on a quarterly basis, or as needed, to provide updates on the progress of the Project.

In accordance with the Mayor's Executive Directive No. 4, the City Administrative Officer's (CAO) Report was approved on August 27, 2024.

## **ENVIRONMENTAL DETERMINATION**

In accordance with CEQA, an Environment Impact Report (EIR) was prepared to evaluate and disclose the potential environmental impacts associated with the construction and operation of the Groundwater Replenishment Project. On December 6, 2016, the Board certified the EIR, adopted the Mitigation Monitoring and Reporting Program, Findings of Fact and Statement of Overriding Considerations; and approved the Project.

## **CITY ATTORNEY**

The Office of the City Attorney reviewed and approved the Resolution as to form and legality.

## **ATTACHMENTS**

- Resolution
- Agreement
- CAO Report