

DATE: 8/24/2020

TO: Board of Harbor Commissioners

FROM: Matthew Arms, Director of Environmental Planning

SUBJECT: Cost Share with Long Beach Water Department for Advance Treated Recycled Water Feasibility Study

EXECUTIVE SUMMARY

In an effort to reduce the potable water demand of the Port and bolster regional drought resiliency, staff requests approval of a cost share with the City Of Long Beach Water Department (LBWD) of an amount not to exceed \$70,000 to conduct a study assessing the feasibility of supplying industrial water customers on the west side of Long Beach with Advance Water Treatment (AWT) recycled water.

KEY POINTS

- In 2016 the Port approached the LBWD regarding potentially transitioning high-demand industrial water users in the North Harbor to recycled water.
- LBWD and POLB have partnered to explore the feasibility of purchasing AWT water from LADWP and/or MWD to offset suitable potable water demands in west Long Beach and the Harbor District.
- AWT recycled water is highly purified and distinct from traditional (Title 22) recycled water. It is used primarily for industrial (non-potable) uses and indirect potable reuse.
- There is an opportunity to eliminate a large percentage of the Harbor District's potable water demand by converting a small number of high-demand industrial water users to AWT water.
- LBWD, in coordination with the Port, completed a feasibility study in 2019 to assess purchasing AWT water and delivering it to west Long Beach and the Harbor District area.
- The results of the 2019 study indicated significant cost savings could be achieved by utilizing existing Los Angeles Department of Water and Power (LADWP) recycled water lines to deliver AWT water to the Harbor District.
- LBWD and POLB staff approached LADWP regarding use of their lines, and staff from the three agencies proposed to share the costs of a study to determine if the LADWP lines have sufficient capacity to deliver AWT water to the Harbor District. .
- LADWP would pay 50% of the study costs (up to \$140,000), and POLB and LBWD would split the remaining 50% (POLB's portion would not exceed \$70,000).

REQUESTED ACTION(S)

Approve the transfer of up to \$70,000 from the Port of Long Beach to LBWD via a journal voucher.

FINANCIAL IMPACT/CONTRACT COMPLIANCE

The feasibility study's cost is not to exceed \$280,000. The LADWP will pay up to \$140,000 and LBWD has proposed a 50/50 cost share for the \$140,000 remainder. The Port's share would be up to \$70,000.

DISCUSSION

In early 2017, the Environmental Planning Division presented to the Board of Harbor Commissioners potential strategies to become more drought-resilient and reduce the Port's potable water demand. Transitioning to recycled water supplies in lieu of potable water when feasible was identified as a more sustainable and less impactful alternative to seawater desalination. Through coordination with the LBWD, AWT recycled water was identified as a promising solution and both agencies began investigating its potential in the Harbor District and west Long Beach area.

AWT water is highly-treated recycled water which is more purified than most potable water sources. It is primarily used in industrial processes such as boilers or cooling tower applications, or to recharge groundwater reserves (known as indirect potable reuse). It is treated to a much higher standard than traditional Title 22 recycled water, which is commonly used for irrigation purposes. AWT water is not considered appropriate for irrigation purposes due to its high level of purity.

Currently, the Los Angeles Department of Water and Power (LADWP) and the Metropolitan Water District of Southern California (MWD) are planning advanced treated recycled water facilities in close proximity to the western border of the LBWD service area. LADWP and MWD have indicated that these new regional recycled water supplies could potentially be made available to LBWD. Initial investigations indicate that converting a small number of high-demand industrial water users in the Harbor District to AWT water can eliminate a significant percentage of the Harbor District's potable water demand.

LBWD and POLB continue to explore the feasibility of purchasing advanced treated recycled water from LADWP and/or MWD to offset suitable potable water demands in west Long Beach and the Harbor District. LBWD and POLB completed feasibility study in 2019 to define the market demand for AWT recycled water in west Long Beach and the Harbor District, identify a range of alternatives for infrastructure required to deliver the AWT water to the service area, and identify costs associated with the capital improvements, operations and maintenance, and the water itself. The study recommended a range of alternatives, including utilization of existing LADWP recycled water transmission lines near the Harbor District to deliver AWT water to the Port.

The LBWD and the Port approached the LADWP regarding use of these lines, and agency staff proposed a study to determine if the lines have the capacity to serve the Harbor District. LADWP would pay 50% of the study costs (up to \$140,000) and POLB and LBWD would split the remaining 50%. POLB's portion would not exceed \$70,000 and would transfer the funds to the LBWD via journal voucher.

Attachments: Journal voucher request letter from LBWD