



Administrative Report

N.1., File # 22-4145

Meeting Date: 5/10/2022

To: MAYOR AND CITY COUNCIL
From: TED SEMAAN, PUBLIC WORKS DIRECTOR

TITLE

DISCUSSION AND POSSIBLE ACTION REGARDING UPDATES TO THE WEST BASIN MUNICIPAL WATER DISTRICT'S RECYCLED WATER EXPANSION ASSESSMENT STUDY IN REDONDO BEACH AND CURRENT RECYCLED WATER POLICIES

EXECUTIVE SUMMARY

The City Council has a 2022 strategic plan goal titled "Recycled Water: Develop a plan to connect recycled water (purple pipe) to Manhattan Beach Blvd., Anderson Park, and North Redondo Beach bike path". In 2017, West Basin Municipal Water District (West Basin) prepared a study on the feasibility of recycled water supply expansion within the City. The 2017 West Basin study concluded that it was feasible to expand the recycled water supply to all additional identified sites within the City, however, the cost to implement the additional water supply was significant. Updates to the 2017 study will be provided for discussion by West Basin staff, including current expansion cost estimates, at the City Council meeting. In addition, West Basin will share information on the organization's current guidelines and policies regarding recycled water.

BACKGROUND

The City currently receives limited recycled water, estimated to be 65 Acre-Feet per Year (AFY), serving several street medians, Aviation Park, Dominguez Park, Vincent Park, Redondo Beach Union High School, and the Redondo Technology Center. Climate change predictions forecast droughts and an increase in extreme temperatures over a longer period of time. As such, the City Council is requesting staff look at expanding the City's recycled water system to support addition locations. This item provides the City Council an opportunity to receive an updated report from West Basin on the feasibility of expanding the City's recycled water program.

In 2017, West Basin prepared a study on the physical and fiscal feasibility of recycled water supply expansion within the City that analyzed and evaluated the expansion to serve additional sites within Redondo Beach. This report was presented to the City Council on November 21, 2017. Attached is the exhibit from the 2017 study for potential alignment recycled water line expansion in Redondo Beach. The study assessed the opportunities within the City to bring recycled water to key sites identified such as schools, parks, and municipal facilities. The study breaks the potential sites into three major clusters, Northern, Mid-City, and Southern to best utilize the existing recycled water distribution systems. In 2017, potential recycled water customers, or sites, with non-potable water demands were identified and estimated based on irrigated acreage.

The Northern cluster had a total annual demand of 61 AFY among eight sites. An acre-foot of water

is the amount of water that would cover one acre to a depth of one foot, approximately 326,000 gallons. The Mid-City cluster had a total annual demand of 0.72 AFY among three sites, and the southern cluster had a total annual demand of 18.76 AFY among four sites.

Estimated costs were developed in 2017 to bring the recycled water to the identified sites. In 2017, the Northern cluster project cost was estimated at \$ 5.7 million to serve 61.1 AFY of demand with an estimated annualized cost of \$6,577/AF. The Mid-City cluster's 2017 cost was estimated at \$676,000 to serve 0.7 AFY of demand with an annualized cost of \$66,667/AF. The Southern cluster 2017 cost was estimated at \$2.4 million to serve 18.8 AFY with an annualized cost of \$8,950/AF. West Basin will be able to share an updated annualized cost estimate at the meeting. For reference, staff reviewed current costs for use of potable water and recycled water irrigations systems. Under current pricing, a unit of potable water is 24% greater than a unit of recycled water.

The 2017 West Basin study concluded that it was feasible to expand the recycled water supply to all additional identified sites within the City, however, the costs to implement the additional water supply, as noted above, were significant. The 2022 study updates were not available during the preparation of this agenda item. West Basin staff plan to attend the May 10 City Council meeting and present the updated report findings and the 2022 revised cost estimates for discussion. In addition, West Basin will share the current guidelines and policies regarding recycled water.

COORDINATION

The Public Works Department coordinated the preparation of this item with West Basin staff.

FISCAL IMPACT

Funding for the preparation of this admin report is available in the Public Works Department annual operating budget.

APPROVED BY:

Mike Witzansky, City Manager

ATTACHMENT

West Basin 2017 Recycled Water Potential Expansion Exhibits