



**DATE:** October 20, 2020

**TO:** Mayor and City Council

**FROM:** Director of Public Works

**SUBJECT:** Adopt a Resolution Authorizing the City Manager to Amend the Professional Services Agreement with HydroScience Engineers, Inc., to Increase the Contract Amount by \$75,000 for Additional Services to a Not-to-Exceed Amount of \$451,000 and Appropriate Funds

### **RECOMMENDATION**

That Council adopts a resolution (Attachment II), authorizing the City Manager to amend the professional services agreement (PSA) with HydroScience Engineers, Inc., (HydroScience), to increase the contract amount by \$75,000 for additional engineering and construction management support services for a total not-to-exceed amount of \$451,000, and to appropriate additional funds from the Sewer Improvement Fund to the Recycled Water Treatment Facility Project – Phase I, Project No. 07710.

### **SUMMARY**

The City is currently implementing Phase I of its Recycled Water Project that will provide a locally sustainable and drought-resistant supply of recycled water to customers for irrigation and industrial uses. Phase I of the Project consists of constructing a treatment facility, storage tank, and pump station at the City's Water Pollution Control Facility (WPCF), as well as installing nine miles of distribution system pipeline and establishing connections to the pipeline at thirty-one Phase I customer sites.

On December 19, 2017, the City and HydroScience entered into a professional services agreement for engineering, design, and construction support services related to the development of the treatment facility in an amount not-to-exceed \$296,000. On January 21, 2020, staff requested Council approval to increase the contract amount by \$80,000 to a not-to-exceed amount of \$376,000, to provide additional services required following staff departures. Due to subsequent project delays related to the delivery of treatment facility equipment and COVID-19, as well as the identification of additional services required for completion of the project, staff is now requesting Council approval to increase the contract amount by \$75,000 to a not-to-exceed amount of \$451,000. With this additional support, staff anticipates that the treatment facility will be completed and become operational in November 2020.

## BACKGROUND

The City is currently implementing Phase I of its Recycled Water Project, that will provide a locally sustainable and drought-resistant supply of recycled water to customers for irrigation and industrial uses. The Recycled Water Project consists of constructing a treatment facility, storage tank, and pump station at the WPCF, as well as installing nine miles of distribution system pipelines and customer connections that will deliver approximately 260,000 gallons per day (gpd) of recycled water to Phase I customers. Additional background and discussion of the recycled water treatment facility are included in the December 12, 2017 staff report<sup>1</sup>.

On December 19, 2017, the City and HydroScience entered into a professional services agreement not-to-exceed \$296,000 for the provision of engineering, design, and construction support services for the City's recycled water treatment facility. The facility is a packaged membrane treatment system, capable of further treating the WPCF's treated secondary effluent to meet disinfected tertiary recycled water treatment standards set by the State for unrestricted irrigation uses.

On July 17, 2018<sup>2</sup>, Council awarded a contract for procurement of the membrane treatment system equipment so that final design documents could be prepared for installing the pre-selected equipment. On February 26, 2019<sup>3</sup>, Council awarded a contract to construct the recycled water treatment facility for Phase I of the Recycled Water Project.

On January 21, 2020<sup>4</sup>, Council authorized that the contract not-to-exceed amount with HydroScience be increased by \$80,000 to a revised not-to-exceed amount of \$376,000, for additional engineering and construction support services. The additional services were required following City staff departures, and it allowed for HydroScience's performance of additional tasks such as submittal review, construction management services, startup and commissioning services, and assistance with regulatory approval prior to delivery of recycled water. The additional services authorized by this amendment assumed all work would be completed by the initial completion date of March 2020.

## DISCUSSION

Construction of the distribution system pipelines, as well as the storage tank and pump station, was completed in Spring 2020. In addition, retrofit of the 31 Phase I customer sites to connect them to the system will be complete soon. Most customers are already connected to the recycled water system but are currently receiving potable water while the City awaits its

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<sup>1</sup> <https://hayward.legistar.com/View.ashx?M=F&ID=5685222&GUID=F40736D3-A6CB-462A-99B0-78BB55D571DD>

<sup>2</sup> <https://hayward.legistar.com/View.ashx?M=F&ID=6364280&GUID=26267FE3-ADD1-45EA-8740-6A41985F30BA>

<sup>3</sup> <https://hayward.legistar.com/View.ashx?M=F&ID=7053023&GUID=01CFD26B-B1AE-44D0-8AA4-1E198E07B40F>

<sup>4</sup> <https://hayward.legistar.com/LegislationDetail.aspx?ID=4310189&GUID=C455D0DD-10B5-46A6-BC84-64BFADB403EB>

Recycled Water Permit from the State Water Resources Control Board's Division of Drinking Water (DDW). Staff anticipates that the City will be issued the permit later this month.

Installation of the packaged membrane treatment facility was originally expected to be complete by March 2020. However, due to delays in the delivery of the membrane equipment and other project delays stemming from COVID-19, the project is approximately seven months behind schedule, with a new anticipated completion date of November 2020.

Due to the extended project timeline, and additional required services that staff currently lack the capacity to perform, staff is requesting that HydroScience's budget be increased by \$75,000 for a total not-to-exceed contract amount of \$451,000, allowing for the contracted Scope of Work to be expanded to include support in the following areas:

***Conducting Additional Work to Meet Regulatory Requirements.*** Because the City is planning to use the storage tank as both a chlorine contact tank and a storage vessel, additional work has and will continue to be required to perform a tracer study to demonstrate the storage tank's ability to serve as a chlorine contact vessel fully capable of disinfecting the water, and to establish the minimum operating level required to provide sufficient time for chlorine disinfection to occur. This expanded Scope of Work will enable HydroScience to coordinate this testing and the preparation of a report demonstrating the results of this testing for submission to DDW. This is required before DDW will issue the City its Recycled Water Permit and allow delivery of recycled water to customers.

***Title 22 Report Preparation.*** Through the expanded Scope of Work, HydroScience would also help the City update the City's Engineering Report in compliance with Title 22 of the California Code of Regulations (Title 22). Title 22 requirements are stringent water quality standards set by the State to ensure the safe production, distribution, and use of recycled water in California. The report is also required for permit issuance by DDW.

***Development of an Operations & Maintenance (O&M) Manual.*** Because demands are expected to vary between summer and winter, staff requires additional assistance with the development of supplemental O&M manual sections and/or Standard Operating Procedures (SOPs) for system startup, shutdown, abnormal operations, and transitions (from recycled to potable backup and vice versa, batch disinfection, etc.). These needs extend beyond the basic O&M manual that the membrane treatment vendor will supply. The expanded Scope of Work with HydroScience will allow for the development of a tailored, comprehensive O&M Manual for staff use for system operation.

## **ECONOMIC IMPACT**

The community will benefit from the Recycled Water Project through greater diversity and reliability of water supplies, especially during periods of drought. The economic impact of the project on customers, will to some extent, depend on the total costs to implement the City's Recycled Water Project, which includes the capital and operating costs for the storage and distribution system, and recycled water treatment facility. Because the project is partially funded by grants, the overall cost impact to customers is reduced. On July 2, 2019, Council

adopted a recycled water rate structure that provides a balance between recovering costs over the life the project and offering an incentive to customers who receive recycled water.

## **FISCAL IMPACT**

### Recycled Water Treatment Project – Phase I

The total project cost for the City-owned recycled water treatment facility is estimated to be \$2,455,000, including the requested \$75,000 increase in HydroScience’s contract. The Ten-Year Capital Improvement Program (CIP) includes \$2,380,000 for the Recycled Water Treatment Project – Phase I (Project No. 07710). As such, staff is requesting an additional \$75,000 be appropriated from the Sewer Improvement Fund balance to cover the increased project cost, for a total appropriation of \$2,455,000. Sufficient funds are available in the fund balance. There will be no impact to the General Fund.

### Total Phase I Recycled Water Project Cost

The total amount of CIP funding for Phase I of the Recycled Water Project is \$30,191,000, which includes \$27,811,000 for the Recycled Water Storage and Distribution System Project (Project No. 07507) and \$2,455,000 for the Recycled Water Treatment Facility Project (Project No. 07710), if Council approves the requested \$75,000 increase in appropriations.

As shown in Table 1, the total estimated capital cost for the Recycled Water Project, which includes construction of the treatment facility, storage and distribution system, and customer conversions, is currently estimated at \$28,819,906. The Recycled Water Project is anticipated to come in under budget, primarily due to the construction of the distribution system pipeline that was completed nearly one year ahead of schedule and under budget. The Recycled Water Project will not utilize any General Fund monies.

The City has also secured outside grant funding and low interest loans from the State Water Resources Control Board (SWRCB) Clean Water State Revolving Fund Program to help finance the Recycled Water Project. The total SWRCB financial assistance package is approximately \$27 million, of which \$5.8 million is in the form of a grant and up to \$21.2 million is in the form of a low-interest loan.

**Table 1. Phase I Recycled Water Project Capital Cost Estimate**

<b>FACILITY</b>	<b>ESTIMATED COST</b>
Recycled Water Storage and Distribution System Project (Project No. 07507)	
Administration, Planning and Design	\$ 2,897,616
Construction	
Whitesell Pipeline <i>(completed in 2015)</i>	\$ 513,648
Distribution System Pipelines <i>(completed in June 2019)</i>	\$ 15,290,718
Storage Tank and Pump Station <i>(completed in January 2020)</i>	\$ 5,419,389
Customer Retrofits <i>(scheduled to be completed in October 2020)</i>	\$ 2,243,535
Subtotal	\$ 26,364,906
Recycled Water Treatment Facility Project – Phase I (Project No. 07710)	\$ 2,455,000
<b>Total Estimated Phase I Recycled Water Project Cost</b>	<b>\$ 28,819,906</b>

## **STRATEGIC ROADMAP**

This agenda item supports the Strategic Priority of Improve Infrastructure. Specifically, this item relates to the implementation of the following project:

Project 18, Part 18.a: Expand recycled water facilities; Complete recycled water construction (initial phase)

## **SUSTAINABILITY FEATURES**

Every gallon of recycled water that is used for irrigation, saves a gallon of potable water that can be used for drinking purposes. The use of recycled water improves the availability and reliability of drinking water for Hayward’s customers, while providing a sustainable and drought-resistant water supply for irrigation use. Recycled water use also reduces the volume of wastewater and associated nutrients and residual pollutants discharged to San Francisco Bay, which is required to meet increasingly stringent discharge regulations.

## **PUBLIC CONTACT**

Project updates are available on the City’s website at [www.Hayward-CA.gov/recycledwater](http://www.Hayward-CA.gov/recycledwater).

## **NEXT STEPS**

If Council approves the \$75,000 increase to the contract amount with HydroScience, staff will increase the budget with HydroScience to a not-to-exceed amount of \$451,000, including \$75,000, for additional engineering and construction management support services related to the recycled water treatment facility.

*Prepared by:* Suzan England, Senior Utilities Engineer

*Recommended by:* Alex Ameri, Director of Public Works

*Approved by:*

A handwritten signature in black ink, appearing to read 'K. McAdoo', written over a horizontal line.

Kelly McAdoo, City Manager