



DATE: January 21, 2020

TO: Mayor and City Council

FROM: Director of Public Works

SUBJECT: Adopt Resolutions Authorizing the City Manager to Amend the Professional Services Agreement with HydroScience Engineers, Inc., to Increase the Contract Amount by \$80,000 to a Not-to-Exceed Amount of \$376,000, for Additional Services and Appropriate Additional Funds from Sewer Improvement Fund

RECOMMENDATION

That Council adopts the attached resolutions:

1. Authorizing the City Manager to amend the professional services agreement with HydroScience Engineers, Inc., to increase the contract amount by \$80,000 to a total not to exceed amount of \$376,000, for additional engineering and construction management support services; and
2. Appropriating additional funds from the Sewer Improvement Fund for the Recycled Water Treatment Facility Project – Phase I.

SUMMARY

Implementation of the first phase of the City's Recycled Water Project is nearing completion and recycled water deliveries are scheduled to begin in late spring 2020. The Recycled Water Project includes installation of a City-owned recycled water treatment facility at the Water Pollution Control Facility to meet the initial demand for the Recycled Water Project. The recycled water treatment facility is currently in construction and scheduled to be substantially complete by March 2020. Due to a recent key staff departure, additional engineering and construction management services are needed to support this project.

On December 19, 2017, the City and HydroScience Engineers, Inc., entered into a professional services agreement for HydroScience to provide engineering, design, and construction support services for the Recycled Water Treatment Facility Project – Phase I. Staff is requesting Council approval to increase the contract amount with HydroScience by \$80,000 to a not-to-exceed amount of \$376,000, to provide additional support services related to the recycled water treatment facility.

BACKGROUND

The City is implementing the Recycled Water Project, which will provide a locally sustainable and drought-proof 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 City's Water Pollution Control Facility (WPCF) and installing nine miles of distribution system pipelines and customer connections to deliver 260,000 gallons per day (gpd) of recycled water to customers. The City-owned recycled water treatment facility was added to the project in December 2017, after the City was unable to make progress with Russell City Energy Corporation, LLC (RCEC) in finalizing an agreement for the City to obtain recycled water from RCEC's Recycled Water Facility, located adjacent to the WPCF. Once the initial infrastructure is constructed, staff will prepare a Recycled Water Master Plan to evaluate potential expansion of the system and identify customers that could be included in future phases.

On December 19, 2017, the City entered into an Agreement with HydroScience Engineers, Inc. (HydroScience) to provide engineering, design, and construction support services, in an amount not to exceed \$296,000, for a City-owned, 500,000 gpd recycled water treatment facility to meet the demand of the first phase of the City's project. The Phase I recycled water treatment facility is a package 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. Funding for the treatment facility is included as a separate project in the ten-year Capital Improvement Program. Additional background and discussion on the City-owned recycled water treatment facility is included in the December 12, 2017 staff report¹.

On July 17, 2018², 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. The procurement contract requires the membrane system supplier to become a subcontractor or supplier to the construction general contractor designated by the City to purchase and install the membrane treatment system equipment. On February 26, 2019³, Council awarded a contract to construct the recycled water treatment facility for Phase I of the Recycled Water Project.

DISCUSSION

As discussed in the Background section, the City-owned recycled water treatment facility was added to the project in 2017. Construction of the distribution system pipelines and storage

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

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

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

tank and pump station have been completed and the City is currently in construction to retrofit thirty-one customer sites to use recycled water. Staff anticipates that the first customers will be ready to use recycled water in late spring, with all customers connected to the recycled water system by late summer.

Construction of the recycled water treatment facility is now on the critical path for implementing the Recycled Water Project. The current schedule anticipates substantial completion and commissioning of the facility by March 2020. Due to the recent departure of the project manager, a senior utilities engineer, at the end of December 2019, the City does not have the expertise or resources to provide the necessary construction support for the recycled water treatment facility. Therefore, staff is requesting that HydroScience's budget be increased by \$60,000, for a total not to exceed contract amount of \$356,000, to provide additional support to staff in the following areas:

- **Engineering Services During Construction.** HydroScience will perform additional engineering services during construction that were previously being handled by the City's Utilities engineer. This will include coordinating with the recycled water membrane system supplier to review remaining procurement submittals and responding to submittals and requests for information from the general contractor.
- **Construction Management.** HydroScience will assume the role of Construction Manager in place of City staff, starting January 2, 2020 and continuing until completion of the project, which is assumed to be March 2020. The level of effort required is estimated at 8-10 hours per week. HydroScience will be responsible for administering the construction contract and coordinating closely with the City's Inspector and WPCF staff to minimize any potential for schedule delays.
- **Start-up and Commissioning.** During the project start-up and commissioning phase, HydroScience will be onsite to oversee and coordinate start-up activities with the City, general contractor, and membrane equipment supplier.
- **Regulatory Approvals.** In November 2017, the City received approval from the San Francisco Bay Regional Water Quality Control Board (RWQCB) for distribution and use of recycled water under the State's 2016 General Order for recycled water. The General Order is essentially a master recycled water use permit that allows the State to delegate its authority for managing recycled water programs to public agencies and private entities, which allows agencies to directly permit customers rather than needing to apply for individual use permits from the State. Staff is currently working with the RWQCB to revise the City's permit application to add production of recycled water from the City-owned recycled water treatment facility. This effort requires updating 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.

Staff plans to submit the revised permit application to the RWQCB in January 2020. Staff anticipates needing HydroScience's support to respond to RWQCB comments and successfully obtain approval of the revised permit application. As part of the permitting process, the City needs to perform a dye tracer test of the recycled water storage tank to demonstrate the effectiveness of the City's use of the storage tank to meet disinfection requirements. HydroScience will assist the City in finalizing the dye test protocol, conducting the test, and preparing the test report for submittal to the RWQCB.

ECONOMIC IMPACT

The community as a whole 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. To the extent that 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 of the project and offering an incentive to customers who are able to receive recycled water.

FISCAL IMPACT

Recycled Water Treatment Project – Phase I

The total capital cost for the City-owned recycled water treatment facility is estimated at \$2,380,000, including the requested \$80,000 increase in HydroScience's contract. The Ten-Year Capital Improvement Program (CIP) includes \$2,300,000 for the Recycled Water Treatment Project – Phase I (Project No. 07710). Therefore, staff is requesting that an additional \$80,000 be appropriated from the Capital Improvement Program - Sewer Improvement Fund balance to cover the increased project cost, for a total appropriation of \$2,380,000. 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 \$2,380,000 for the Recycled Water Treatment Facility Project (Project No. 07710), if Council approves the requested \$80,000 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 \$28,413,011. The Recycled Water Project is anticipated to come in under budget, primarily due to the construction of the distribution system pipelines 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

FACILITY	ESTIMATED COST
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>to be completed January 2020</i>)	\$ 5,087,494
Customer Retrofits (<i>under construction</i>)	\$ <u>2,243,535</u>
Total (rounded to nearest thousand)	\$ 26,033,011
Recycled Water Treatment Facility Project – Phase I (Project No. 07710)	\$ 2,380,000
Total Estimated Phase I Recycled Water Project Cost	\$ 28,413,011

STRATEGIC INITIATIVES

Implementation of the Recycled Water Project supports the Tennyson Corridor Strategic Initiative. The purpose of this initiative is to develop an attractive, cohesive, thriving Tennyson Corridor through thoughtful engagement with residents, businesses and community partnerships.

There are two sites located in the Tennyson Corridor that are proposed to be connected to the recycled water system, and would therefore support the following goal and objectives:

- Goal 3: Improve Community Appearance
 - Objective 1: Enhance landscaping
 - Objective 3: Decrease blight

The use of recycled water will help create attractive outdoor spaces in the Tennyson Corridor. Since recycled water is a sustainable and drought-proof source of supply, customers will be able to maintain their landscaping during water supply shortages when drinking water supplies are limited.

SUSTAINABILITY FEATURES

The use of recycled water will reduce the demand for drinking water and improve the reliability and availability of drinking water, while providing a sustainable and drought-proof water supply for some irrigation uses. It will also reduce 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

The City completed an environmental review of the Recycled Water Project in October 2014 and a draft Initial Study/Mitigated Negative Declaration (IS/MND) was circulated for a thirty-day public review from October 24, 2014 through November 24, 2014. The IS/MND included environmental review of construction of a City-owned recycled water treatment facility. The IS/MND was adopted on December 16, 2014, incorporating all the comments that were received.

On November 26, 2018, staff provided the Council Sustainability Committee with an update on the Recycled Water Project. The Committee concurred with staff's recommendation to proceed with construction of the City-owned recycled water treatment facility option to ensure a supply for the initial phase of the City's Recycled Water Project.

NEXT STEPS

If Council approves the \$80,000 increase in the contract amount with HydroScience, staff will increase the budget with HydroScience to a not to exceed amount of \$376,000 for additional engineering and construction management support services related to the recycled water treatment facility.

Prepared by: Jan Lee, Assistant Director of Public Works – Utilities

Recommended by: Alex Ameri, Director of Public Works

Approved by:



Kelly McAdoo, City Manager