



DATE: October 20, 2020

TO: Mayor and City Council

FROM: Director of Public Works

SUBJECT: Adopt a Resolution Authorizing the Sole Source Purchase of Specialized Laboratory Equipment for Use at the Water and Wastewater Laboratory at the Water Pollution Control Facility

RECOMMENDATION

That Council adopts a resolution (Attachment II) authorizing the City Manager to execute a sole source purchase of specialized laboratory equipment for use at the Water and Wastewater Laboratory at the Water Pollution Control Facility (WPCF) in an amount not-to-exceed \$110,000.

SUMMARY

The Water and Wastewater Laboratory at the WPCF currently utilizes a highly specialized instrument known as an Inductively Coupled Plasma-Mass Spectrometer (ICP-MS), for the analysis of metals in the City's wastewater, surface water, and drinking water. The City's current ICP-MS instrument has been in service for more than fifteen years, is past its useful life, and is no longer operational or repairable because the manufacturer no longer provides any support. The City's water and wastewater tests must meet an exceedingly high level of accuracy, as well as other unique specifications, which only one vendor, Agilent Technologies, Inc., (Agilent), is currently able to provide. As such, staff recommends that the City Manager be authorized to execute the sole source purchase of a replacement ICP-MS from Agilent in an amount not to exceed \$110,000. Council has previously approved funding for the replacement of this equipment as part of the FY 2021 Capital Improvement Program.

BACKGROUND

The City's WPCF provides wastewater treatment for Hayward's residential and business communities, treating an annual average of eleven million gallons of wastewater per day (MGD) to ensure that the treated water meets local, State, and Federal requirements for discharge to the deep waters of the San Francisco Bay. The Water and Wastewater Laboratory at the WPCF tests the City's wastewater to ensure compliance with these regulations, in addition to testing wastewater samples from certain industrial dischargers throughout the City. Regularly testing the wastewater produced by the City's industrial

businesses is critical in ensuring continued compliance with regulations, and their respective discharge permits.

Specialized ICP-MS equipment is required to conduct these water and wastewater tests accurately and efficiently. The City's current ICP-MS has been in service for more than fifteen years and, due to its age, it is no longer operational or repairable because it has been discontinued by its manufacturer and is no longer supported. It is now in need of replacement so staff can continue to regularly test the City's water.

DISCUSSION

Only one product on the market meets the specifications required to effectively test the City's water and wastewater: the ICP-MS 7800, which has the ability to run high-sensitivity tests, as well as test for multiple elements at the same time. It is equipped with configurable software for improved accuracy of data analysis, reporting, and quality assurance. It also allows for testing at a lower detection limit than any other spectrometer available today, and is the only instrument precise enough to meet the City's needs. Laboratory analysts utilizing the same instrument throughout the Bay Area have verified the equipment's superior accuracy. Its manufacturer, Agilent, also provides more training, maintenance, and technological support than any other in the field. Agilent is a global analytical instrumentation manufacturing company in the environmental and forensic field, with headquarters in Santa Clara, CA.

Agilent is the sole manufacturer of the suitable ICP-MS 7800 and, as such, staff is requesting Council authorization to execute the sole source purchase of this critical piece of equipment from this vendor.

ECONOMIC IMPACT

The replacement of the ICP-MS will have no direct impact on the local economy.

FISCAL IMPACT

The cost of the replacement equipment, as quoted by Agilent, is approximately \$110,000 including tax. Investment in a replacement ICP-MS will enable the City to avoid relying on third party organizations to test water samples, saving an estimated \$195,000 per year. Funding for the replacement of this equipment was previously approved as part of the FY2021 Capital Improvement Program, Project No. 07743 at an amount of \$200,000 within Sewer Improvement Fund 612.

STRATEGIC ROADMAP

This agenda item is a routine operational item and does not relate to any of the six priorities outlined in the Council's Strategic Roadmap.

SUSTAINABILITY FEATURES

Purchase of this equipment will enable staff to continue conducting water and wastewater tests to ensure compliance with regulations including those set forth by the Environmental Protection Agency and Clean Water Act. Regular and accurate testing of the City's water and wastewater helps ensure protection of the Bay, as well the health and safety of the Hayward community.

PUBLIC CONTACT

Purchase of this replacement equipment requires no public contact.

NEXT STEPS

If Council approves the recommendation, staff will work with the City Manager to execute the sole source purchase of this equipment from Agilent.

Prepared by: Farid Ramezanzadeh, Water and Wastewater Laboratory Supervisor

Recommended by: Alex Ameri, Director of Public Works

Approved by:

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

Kelly McAdoo, City Manager