



City of Arts & Innovation

City Council Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL DATE: JUNE 14, 2022

FROM: PUBLIC WORKS DEPARTMENT WARDS: ALL

SUBJECT: APPROVE THE PURCHASE ORDER OF FOUR (4) GAS MASTRRR SUBMERSIBLE MIXING SYSTEMS FROM CHARLES P. CROWLEY COMPANY OF IRWINDALE, CALIFORNIA, IN THE AMOUNT OF \$85,088.75 FOR THE RIVERSIDE REGIONAL WATER QUALITY CONTROL PLANT USING SECTION 404 AND 602 OF PURCHASING RESOLUTION 23812

ISSUE:

Approve the purchase order of four Gas Mastrrr submersible mixing systems for the Riverside Regional Water Quality Control Plant from Charles P. Crowley Company of Irwindale, California, in the amount of \$85,088.75, using Sections 404 and 602(j) of Purchasing Resolution 23812.

RECOMMENDATIONS:

That the City Council:

1. Approve the purchase order of four Gas Mastrrr submersible mixing systems from Charles P. Crowley Company of Irwindale, California, in the amount of \$85,088.75, in accordance with Sections 404 and 602(j) of the Purchasing Resolution 23812; and
2. Authorize the City Manager, or his designee, to execute the purchase order and all other documents for the purchase as needed, including making minor and non-substantive changes.

BACKGROUND:

The City of Riverside Public Works Department, Wastewater Division, is responsible for the collection, conveyance, and treatment of wastewater generated within the City of Riverside and the communities Service Districts of Edgemont, Jurupa, Rubidoux, and the unincorporated community of Highgrove. Sewage treatment is performed at the Riverside Regional Water Quality Control Plant (RWQCP), which provides primary, secondary, and tertiary treatment which has a hydraulic rating capacity of 46 million gallons per day (MGD). Discharge of treated effluent from RWQCP is mandated by the City's National Pollutant Discharge Elimination System (NPDES) permits as authorized by the Clean Water Act, issued by the California Regional Water Quality Control Board (RWQCB), Santa Ana Region, and Title 22 (The State of California Water Recycling Criteria) for disinfected tertiary recycled water.

RWQCP operates as two individual plants with a final combined effluent which is discharged to the Santa Ana River. Plant 1, Membrane Bioreactors (MBR) Treatment Train, was completed in Summer 2017, with a total treatment capacity of 26 MGD. Additionally, 6 MGD of capacity of MBR and associated equipment were installed in 2021 to increase Plant 1 MBR capacity up to 32 MGD total.

Plant 2, Activated Sludge Treatment Plant, has a treatment capacity of 20 MGD. Currently, the RWQCP treats 27 MGD of wastewater, in which Plant 1 treats 22 MGD of wastewater, and the remaining flow of 5 MGD is treated through Plant 2. Due to the decreased flows from Plant 2, Chlorine Contact Basin 3 (CCB3) has been taken offline for better operational strategy, and to streamline process efficiency. The flow from both Plants is commingled prior to Chlorine Contact Basin 2 (CCB2), where the effluent is chlorinated to meet the RWQCB's requirements and dechlorinated prior to being discharged to the Santa Ana River.

DISCUSSION:

In May 2019, the City of Riverside received conditional approval from the State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) for the conversion of CCB2 from chloramine disinfection with a residual contact time of 450 milligram-minutes per liter (mg-min/L) to free chlorine disinfection with a free chlorine residual contact time of 30 mg-min/L. The shorter contact time in the CCB2 will reduce disinfection byproducts, reduce chemical dosages and cost, and improve overall operational efficiency. In order to comply with the conditions listed on the conditional acceptance letter from DDW, the modification of existing CCB2 is required for conversion to free chlorine operation.

The design for the CCB2 modifications is currently being finalized and will be advertised for construction in the summer of 2022. When CCB2 is offline for 10-12 months during the conversion, the flow from both Plants will need to be diverted to CCB3 to maintain compliance with State and Federal requirements.

Since CCB3 has been offline since 2017, Plant staff has run thorough tests on all associated piping and equipment to bring CCB3 back online and in full compliance. Staff has determined that four existing Gas Mastrrr flash mixing submersible systems are inoperable and are at their end of useful life expectancy.

The first two Gas Mastrrr mixing systems are located on the influent side and second two are located on the effluent side of CCB3. The Gas Mastrrr submersible mixing systems are critical components to allow chemicals to be flash mixed directly into the flow for the continued treatment process. Due to the existing design and configuration of CCB3, the Gas Mastrrr is the only compatible submersible mixing system in the market to be used for CCB3. It is necessary to procure the same mixing system for expedited in-kind replacement without making costly, unnecessary, and substantial modifications to the existing CCB3 configuration for the use of 10-12 months only. CCB2 will continue to be used to disinfect the effluent from Plant 1 and Plant 2 after the modification of CCB2 is completed.

Purchasing Resolution 23812, Section 404 lists products and services for the Water, Electric, and Sewer Utilities for which an exception to competitive procurement is allowed. Specifically, section 602(j) states an exception for products "When the Procurement is subject to Section 404 of this Resolution, which generally allows for items peculiar to the needs of Riverside Public Utilities (Section 1203 of the City Charter) and Public Works - Sewer to be made through Informal or Negotiated Procurement". The product falls under multiple items in Section 404 as it is a system of combined parts and functions. Section 404 lists "Electric Motor Controls, Electrical Motors, and

Pumps” and the submersible mixing system is a combination of all 3 of these. In addition, there is only one manufacturer-approved distributor of the devices in the Southern California area so the use of 602(j) allows for procurement from a timely and reliable source.

The Purchasing Manager concurs that the recommendation to approve complies with Purchasing Resolution No. 23812.

STRATEGIC PLAN ALIGNMENT:

This project aligns with **Strategic Priority 6 – Infrastructure, Mobility, and Connectivity** and supports **goal 6.2** – Maintain, protect, and improve assets and infrastructure within the City’s built environment to ensure and enhance reliability, resiliency, sustainability, and facilitate connectivity.

Furthermore, this project aligns with each of the five Cross-Cutting Threads as follows:

1. **Community Trust** – Conducting regular preventative maintenance routines ensures wastewater discharges do not negatively impact the community and environment. The RWQCP manages and protects capital assets through on going condition assessments and system maintenance by requiring all services and equipment to align with local laws and regulations.
2. **Equity** – This purchase order supports RWQCP efforts in protecting the public’s health and the environment by ensuring critical infrastructure and equipment are operating efficiently and effectively.
3. **Fiscal Responsibility** – This purchase order will target ways to reduce costs, minimize inefficiencies, and develop control methods to optimize operating processes and maintenance routines to protect City assets.
4. **Innovation** – This purchase order exemplifies a collaborative partnership between RWQCP and Charles P. Crowley Company to enhance operational reliability by achieving measurable improvements through proper maintenance services and equipment checks.
5. **Sustainability & Resiliency** – This purchase order supports the continuous evaluation of performance measures and practices that can be managed and maintained for overall optimum performance and to meet future needs.

FISCAL IMPACT:

The total fiscal impact of the action is \$85,088.75. Funds are budgeted and available in the Sewer Fund, Rehabilitation of Chlorine Contact Basin 2 & 3 Project account number 9917923-440301.

Prepared by: Gilbert Hernandez, Public Works Director
Certified as to
availability of funds: Edward Enriquez, Interim Assistant City Manager/CFO/Treasurer
Approved by: Kris Martinez, Assistant City Manager
Approved as to form: Phaedra A. Norton, City Attorney

Attachments:

1. Quote from Charles P. Crowley Company
2. Sole Source Letter from Charles P. Crowley Company