



Staff Report

File #: 23-0854

**REQUEST FOR CITY COUNCIL AND
CORONA UTILITY AUTHORITY ACTION**

DATE: 10/18/2023

TO: Honorable Mayor and City Council Members
Honorable President and Board Members

FROM: Utilities Department

SUBJECT:
PURCHASE ORDER WITH TORAY MEMBRANE USA FOR REVERSE OSMOSIS MEMBRANES

EXECUTIVE SUMMARY:

This staff report asks the City Council to approve a purchase order with Toray Membrane USA for four years for the purchase of reverse osmosis membranes for the Temescal Desalter treatment facility.

RECOMMENDED ACTION:

That the City Council:

- a. Authorize the City Manager, or his designee, to issue a purchase order with Toray Membrane USA in the amount of \$210,000 per year, for a term of four years, including any non-substantive extensions or change orders up to the amount authorized by Corona Municipal Code [Section 3.08.080\(I\)](#) which is equivalent to 10% or \$21,000.
- b. Make a determination under Corona Municipal Code [Section 3.08.140\(B\)](#) that competitive bidding is not required for this purchase based upon the reasons provided in this agenda report.

That the Corona Utility Authority review, ratify, and to the extent necessary, direct the City Council to take the above actions.

BACKGROUND & HISTORY:

The Utilities Department operates the Temescal Desalter to treat 12.13 million gallons per day of

brackish groundwater. The Temescal Desalter removes Total Dissolved Solids (TDS), nitrates, and Polyfluoroalkyl Substances (PFAS). The Temescal Desalter operations process includes the following:

- Pre-chemical injection for optimal performance
- Cartridge filtration to remove sand and sediment
- First stage reverse osmosis membrane treatment
- Second-stage reverse osmosis membrane treatment
- Decarbonation to increase pH
- Post-chemical injection for pH adjustment and disinfection
- Blending and pumping into the distribution system

The heart of the process is the membrane treatment. Staff conducts routine preventive maintenance and clean-in-place procedures to ensure the longevity of the membranes, but membranes begin to lose effectiveness after several years (between 5 and 7 years depending on source water quality). The Temescal Desalter has four trains of membranes. Typically, the Utilities Department changes out one train of membranes at a time and works through all four trains every 5 to 7 years based on plant performance. Specifically, staff uses several indicators such as differential pressure and salt passage to identify the need for a membrane changeout. The age of the current membranes is provided in the table below.

Train	Install Date	Membrane Age
1	August 2020	3 years
2	July 2016	7 years
3	June 2019	4 years
4	October 2020	3 years

ANALYSIS:

The Train 2 membranes are over 7 years old and due for immediate replacement. For optimal facility performance, the Utilities Department recommends replacing Train 2 in Fiscal Year (FY) 2024, Train 3 in FY2025, Train 1 in FY2026, and Train 4 in FY2027.

Staff believes that an exception to competitive bidding is warranted for this purchase pursuant to Corona Municipal Code (CMC) [Section 3.08.140\(B\)](#), which states as follows:

“No competitive market. When the purchasing agent and the authorized contracting party, with the approval of the City Manager, determines, in accordance with applicable law, that a competitive market does not exist and that no competitive advantage will be gained by the public bidding process.”

Staff believes this purchase qualifies for an exception to competitive bidding based on previous third-party analysis and bidding conducted by the City. The Utilities Department hired Separation Processes, Inc. (SPI) in August 2019 to conduct an analysis of the Temescal Desalter and identify the most appropriate type of membrane for optimal treatment performance. SPI offers 40 years of

knowledge in membrane technologies; additionally, SPI participated in the original design of the Temescal Desalter. SPI is knowledgeable about membrane system operation and their analysis and guidance is based on sound practices. SPI has worked extensively with other membrane treatment plant operators including Yucaipa Valley Water District, Orange County Water District, Western Water, Chino Basin Desalter Authority, and Irvine Ranch Water District. SPI reviewed 11 years of operating data for the Temescal Desalter as well as water supply data to determine the ideal membrane from each manufacturer to accommodate Corona’s water quality and flow requirements. SPI delivered a set of Technical Specifications for the type, size and material of membrane for the Temescal Desalter.

In April 2020, the Purchasing division issued a Notice Inviting Bids (NIB) No. 20-057WY Reverse Osmosis Membrane Material and Equipment using the Technical Specifications provided by SPI. The NIB was advertised on the PlanetBids page and the Weekly Sentinel News. The City solicited seven reverse osmosis membrane material and equipment contractors with one vendor submitting a bid and one vendor submitting a “no bid” response. The Purchasing division reached out to the seven firms that downloaded the NIB and requested their feedback as to why they chose not to submit a proposal and learned that contractors did not participate due to the uniqueness of the bid’s Technical Specifications. On June 17, 2020, the City Council approved purchase orders for three years commencing with FY2020 through FY2022 with the intent of replacing membranes for Trains 1, 4, and 2. Trains 1 and 4 were completed but Train 2 was not completed during the three-year period due to competing staff priorities, primarily PFAS treatment analysis.

Therefore, since there is only one vendor available to bid on the Technical Specifications, and the operating parameters of the Temescal Desalter have not changed, there is no competitive market and no competitive advantage from conducting a public bidding process.

Further, the pricing offered to the City by Toray Membrane is fair. Toray Membrane raised their pricing from \$395 in April 2020 to \$425 in June 2023 representing a 7.6% increase. During the same time period the Consumer Price Index, Riverside Area, increased by 21.2%. Therefore, even though Toray Membranes pricing has increased, it is still well below inflation for the same time period.

The table below reflects the costs over the next four years. Toray Membrane has agreed to hold the pricing of \$425/membrane through June 30, 2025, and \$450/membrane through June 30, 2028.

Year	Train	Qty Membranes	Unit Price	Cost*
FY2024	2	315	\$425	\$133,875
FY2025	3	315	\$425	\$133,875
FY2026	1	315	\$450	\$141,750
FY2027	4	462	\$450	\$207,900
Grand Total				\$617,400

*Does not include miscellaneous parts, tax, freight

FINANCIAL IMPACT:

Funding for the recommended action is available in the Desalter Membrane Replacements Operating and Maintenance Project No. 75060 within the Water Utility Fund 570 for Fiscal Year 2024. Future funding will be included in the annual budget request process.

ENVIRONMENTAL ANALYSIS:

This action is exempt pursuant to Section 15061(b)(3) of the Guidelines for the California Environmental Quality Act (CEQA), which states that a project is exempt from CEQA if the activity is covered by the common sense exemption that CEQA applies only to projects that have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA. This action involves the purchase of materials, and there is no possibility that the purchase will have a significant effect on the environment. Therefore, no environmental analysis is required.

PREPARED BY: KATIE HOCKETT, ASSISTANT DIRECTOR OF UTILITIES

REVIEWED BY: TOM MOODY, DIRECTOR OF UTILITIES

Attachments:

1. Exhibit 1 - Toray Membrane Quote