



AGENDA MEMORANDUM

Action Item for the City Council Meeting August 10, 2021

DATE: August 10, 2021

TO: Peter Zanoni, City Manager

FROM: Kevin Norton, Director of Water Utilities
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Polyethylene Storage Tanks for 50% Concentrated Caustic Soda for the Utilities Department

CAPTION:

Motion authorizing a one-year service agreement with Environmental Improvements, Inc. of Houston, Texas in an amount not to exceed \$253,999.92 for nine cylindrical polyethylene storage tanks (12-foot diameter, 14-foot height) for 50% concentrated caustic soda for O. N. Stevens Water Treatment Plant, effective upon issuance of notice to proceed, with FY 2021 funding in an amount of \$253,999.92 available through the Utilities Department Water Fund.

SUMMARY:

This supply agreement provides nine polyethylene storage tanks for 50% concentrated caustic soda used during the treatment process at O. N. Stevens Water Treatment Plant. Polyethylene is a durable thermoplastic valued for its strength and lightness.

BACKGROUND AND FINDINGS:

Liquid Caustic Soda (Sodium Hydroxide) is a slippery, highly corrosive chemical utilized at the O. N. Stevens Water Treatment Plant for pH adjustment of the final filter effluent to raise the pH of water. Due to the corrosive nature of this product, storage tanks are required to be double walled and stored in a confined containment space. Liquid Caustic Soda must be kept at a specific temperature to prevent it from becoming a solid.

At present, O. N. Stevens Water Treatment Plant has nine tanks used for Liquid Caustic storage. The current tank material is cross-linked polyethylene (XLPE). XLPE is a commonly used product in the industry for water and wastewater bulk chemical storage and is the best-suited material for

this product. The current tanks used for Liquid Caustic Soda were ordered and constructed per design in 1998 and have surpassed their life expectancy.

The proposed manufacturer's warranty is for five years, but the proposed manufacturer and contractor agree that at least ten years is an ample life expectancy for the tanks.

PROCUREMENT DETAIL:

The Contracts and Procurement Department conducted a competitive Request for Bids process to obtain bids. The City received one responsive, responsible bid and staff is recommending the award to Environmental Improvements, Inc.

ALTERNATIVES:

The alternative to accepting this bid would be to purchase replacement tanks made of polyvinyl carbonate with fiberglass-coated wrapping and polyethylene terephthalate (PET), which are costlier materials, but XLPE offers the best-suited material for this product.

FISCAL IMPACT:

The fiscal impact for the Water Fund in FY2021 is \$253,999.92.

FUNDING DETAIL:

Fund:	4010	Water Fund
Organization/Activity:	31010	O. N. Stevens Water Treatment Plant
Mission Element:	062	Treat Water
Project # (CIP Only):	N/A	
Accounts:	550010	Building – Capital Outlay

RECOMMENDATION:

Staff recommends approval of this motion authorizing a one-year service agreement with Environmental Improvements, Inc.

LIST OF SUPPORTING DOCUMENTS:

Service Agreement
Bid Tabulation