



**AGENDA MEMORANDUM**  
for the City Council Meeting of June 12, 2012

**DATE:** May 29, 2012

**TO:** Ronald L. Olson, City Manager

**FROM:** Daniel Biles, P.E., Interim Director of Engineering Services  
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**Approval of Contract for Professional Services:  
Whitecap Wastewater Treatment Plant  
Ultra-Violet (UV) Disinfection System Upgrade  
(Project No. E10179)**

**CAPTION:**

Motion authorizing the City Manager, or designee, to execute a Contract for Professional Services contract with Freese and Nichols of Corpus Christi, Texas in the amount of \$249,352.00 for the Whitecap Wastewater Treatment Plant Ultra-Violet (UV) Disinfection System Upgrade.

**BACKGROUND AND FINDINGS:**

The existing Whitecap Wastewater Treatment Plant utilizes an ultra-violet (UV) disinfection system for the final effluent in order to comply with bacteria limits in the TCEQ discharge permit. The system was originally designed for the inactivation of E. coli. Since the plant discharges to saltwater, TCEQ now requires that enterococci be monitored for compliance with the discharge permit rather than E. coli. Enterococci bacteria are more difficult to inactivate than E. coli and often require a higher dosage of UV. The plant has periodically had difficulty meeting the enterococci limits. The purpose of this project is to upgrade the disinfection system to allow continuous compliance with the enterococci limits. Freese and Nichols Inc. was selected to perform this work because of their experience in designing multiple UV disinfection systems for wastewater treatment plants around the state of Texas. Freese and Nichols, Inc. is also providing peer review for the UV system on the New Broadway Wastewater Treatment Plant Project.

The proposed project will design an upgrade for the existing disinfection system including larger UV modules, flow metering to flow pace the UV dosage, piping, instrumentation and control, electrical and miscellaneous items of work to provide a complete installation.

**ALTERNATIVES:**

1. Award the contract to Freese and Nichols as proposed.
2. Do not award the contract to Freese and Nichols as proposed.

**EMERGENCY / NON-EMERGENCY:**

Not Applicable.

**DEPARTMENTAL CLEARANCES:**

Wastewater Department

**FINANCIAL IMPACT:**

Not Applicable     Operating Expense     Revenue     CIP

<b>FISCAL YEAR: 2011-2012</b>	<b>Prior Year (CIP Only)</b>	<b>Current Year</b>	<b>Future Years</b>	<b>TOTALS</b>
Budget		\$90,000.00	\$720,000.00	\$810,000.00
Encumbered/Expended Amt.				
This item		\$90,000.00	\$159,352.00	\$249,352.00
BALANCE				
FUNDS: Wastewater CIP				

**Comments:**

The total design cost for the engineering services is \$249,352. The total project budget with engineering services and reimbursements is \$269,300.16. Engineering Design Services include design of upgrades to the UV disinfection system including UV modules, flow metering, instrumentation and control, and electrical. Design will be completed in approximately seven months. Construction procurement is anticipated in future out years under the Wastewater CIP Program. It is estimated that the construction costs will range between \$2.5M - \$3M.

**RECOMMENDATION:**

City staff recommends the Contract for Professional Services be awarded to Freese and Nichols of Corpus Christi, Texas, in the amount of \$249,352.00 for professional services.

**LIST OF SUPPORTING DOCUMENTS:**

- Project Budget
- Location Map
- A/E Contract