



Department of Public Utilities
Public Utilities Administration
Inter-Office Memorandum

DATE: December 16, 2023

FILE: PU-24-38

TO: George R. Keller, Jr., CPPT
City Manager

VIA: Adam Reichbach
Assistant City Manager for Finance and Administration ^{DS} AR

VIA: Gus Zambrano
Assistant City Manager for Sustainable Development ^{DS} GZ

THRU: Steve Stewart
Director, Procurement and Contract Compliance ^{DS} SS

^{DS} PS. **FROM:** Vincent Morello, P.E.
Director, Department of Public Utilities ^{DS} VM

^{DS} WM **SUBJECT:** Recommendation to Approve the Issuance of Purchase Orders to: Cardinal Contractors, Inc., in an amount up to \$4,250,000.00; for Emergency Response during the period of December 12, 2023 – June 30, 2024, related to the Ocean Outfall Pump Station Motor No.1 Failure. The Procurement Method used is Emergency.

ISSUE:

The Department of Public Utilities (DPU) had an emergency need to implement repair work, on a time and material basis, related to the Ocean Outfall Pump Station Motor No.1 Failure, which occurred on December 12, 2023, at the Southern Regional Wastewater Treatment Plant (SRWWTP).

EXPLANATION:

The Ocean Outfall Pump Station is equipped two pumps, each with an 800 H.P.-motor that allow discharge of up to 100 million gallons per day (MGD) of treated effluent via the ocean outfall pipeline. These large motors are equipped with slip recovery drives for pump speed control, which are currently out of service.

On December 12, 2023, at approximately 2:30 PM, motor no.1 failed, rendering the entire Ocean Outfall pump station inoperable (pump no.2 is inoperable due to the failure of its discharge pipe on November 17, 2023). DPU initiated an emergency response to this incident as follows:

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- Operations staff maximized the effluent flow discharged via deep injection wells to help prevent an overflow.
- City staff contacted Cardinal Contractors, Inc. (Contractor), the general contractor already on-site at the SRWWTP for the Injection Wells No. 3 and 4 project, to mobilize immediately after the incident. The contractor procured the necessary equipment (cranes, etc.), to initiate the removal of the failed motor. City staff, assisted by the Contractor, worked through the night to install an available motor. Installation was completed and the pump station was placed back in service approximately at 4:40 AM on December 13, 2023.
- At 6:30 AM on December 13, 2023, the Contractor shipped the failed motor to the manufacturer to be evaluated and refurbished.

City Staff engaged the engineering consulting firm, Hazen and Sawyer, P.C.; (Hazen) to evaluate the failure and provide recommendations. Given the importance of the effluent outfall pumps to plant operations, Hazen recommended repairing/refurbish the two existing motors as an interim measure and that the slip recovery drives be repaired to reduce the stress on the pump/motor system and also to maintain control of the effluent pump station wet well level. Motor no.2 currently in operation, is operating without speed control (slip recovery drive out of service), starting at full speed multiple times an hour which causes stress in the system and is believed to reduce the life span of the motor.

The DPU recommends the installation of a backup effluent discharge bypass, to help prevent an overflow, in the event motor no.2 fails under its current operating conditions. This bypass is expected to be in place until both motors and drives have been repaired and reinstalled (6 months estimated). The estimated cost associated with the repairs is as follows:

Not to Exceed Estimate

Refurbish Motor No.1 & No.2	\$ 500,000.00
Refurbish Slip Recovery Drives	\$ 500,000.00
Ocean Outfall Bypass (100 MGD)	
Installation/Removal	\$ 610,000.00
Freight	\$ 140,000.00
Monthly rental @\$250,000 x 6 months	\$ 1,500,000.00
Diesel fuel cost x 6 months	\$ 1,000,000.00
Estimated total cost	\$4,250,000.00

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AUTHORITY:

§ 38.41 COMPETITIVE SOLICITATIONS REQUIRED: EXCEPTIONS

(C)(1) Emergency purchases:

*In urgent cases of compelling emergency that require the immediate purchase of goods, supplies, materials, equipment or services, the CPO is authorized to secure, when possible, emergency goods, supplies, materials, equipment, or services by open market procedure. **All such emergency purchases must receive prior administrative approval except for the most urgent situations presenting a clear and present substantial threat to life or property where immediate action is required.***

Since necessary short-term work, such as motor evaluation and refurbishment is to be performed, the purchase order amount may need to be increased. After all costs are finalized, the DPU plans to get the approvals ratified by the City Commission.

Funding has been provided in the amended fiscal year 2024 Capital Improvement Budget in Account Number to be determined.

RECOMMENDATION:

Authorize the issuance of Purchase Orders to: Cardinal Contractors, Inc. in an amount up to \$4,250,000.00, related to the Ocean Outfall Pump Station Motor No.1 Failure.

DocuSigned by:

George R. Keller Jr., CPPT

12/16/2023

APPROVED BY: George R. Keller, Jr., CPPT
City Manager

Date