



AGENDA MEMORANDUM

Action Item for the City Council Meeting October 25, 2022

DATE: October 18, 2022

TO: Peter Zanoni, City Manager

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Professional Services Contract

Wesley Seale Dam Instrumentation Rehabilitation

CAPTION:

Motion authorizing a professional services contract with Freese and Nichols, Inc., Corpus Christi, Texas, to provide design, bid, and construction phase services for Wesley Seale Dam Instrumentation Rehabilitation in an amount not to exceed \$358,005.32, with FY 2023 funding available from Water Capital Fund.

SUMMARY:

This motion authorizes approval of a professional services contract for design, bid, and construction phase services for the Wesley Seale Dam Instrumentation Testing and Rehabilitation Project.

BACKGROUND AND FINDINGS:

The Wesley Seale Dam is located on the Nueces River, four miles west of Mathis, Texas, at the intersection of Live Oak, San Patricio and Jim Wells countries which is about 32 miles northwest of the City of Corpus Christi. The dam is owned and operated by the City of Corpus Christi and impounds Lake Corpus Christi, which is used for municipal water supply and recreational purposes. At full capacity the lake stores approximately 256,338 acre-feet of water with a surface area of 19,251 acres at a lake level of 94 feet above sea level.

The dam construction was completed on April 26, 1958, with earthen embankment sections, two concrete spillways and 60 crest gates with dam safety monitoring instrumentation. The crest gates are only used when excessive water needs to be released during flood events.

This project was developed based on recommendations in a Preliminary Engineering Report (PER) prepared in February 2019. The report included a condition assessment of the dam safety monitoring instrumentation and recommended upgrades to the instrumentation system to ensure safe operation. This project will modernize the instrumentation systems to ensure continued safe operation of the Wesley Seale Dam system.

The design scope includes developing bid documents and construction phase services for following work elements:

- Cleaning and testing overall performance of 16 manually monitored piezometers
- Clean 25 relief wells and relief well outfall pipes by water jetting
- Replacing vibrating wire sensors in piezometers and extensometers
- Replacing existing data-loggers with a modern system and providing wireless communications between instrumentation panels
- Replacing the existing SCADA system with a new SCADA system that is compatible with the system used by the Citywide Utilities Department
- Replacing the existing Access database with a custom database and dashboard accessible through the City's network
- Installing permanent GPS monitoring stations and monitoring points with the Trimble GPS system

PROJECT TIMELINE:

2022 - 2023	2023-2024	2024 - 2025
October - November	December - March	April - October
Design	Bid/Award	Construction

Projected schedule reflects City Council award of design services in October 2022 with anticipated construction completion by October 2025.

COMPETITIVE SOLICITATION PROCESS:

Freese & Nichols, Inc. was selected for FY 2022 Professional Services for Capital Improvement Projects, under RFQ 3977. Wesley Seale Dam Instrumentation Rehabilitation was one of nine selections that were announced under the Utility Projects Category of the RFQ.

Freese & Nichols, Inc. has been working on the Wesley Seale Dam which led to them being selected for this portion of the construction. The selection committee was comprised with representatives from the Utilities Department and Engineering Services. The final evaluation ranked Freese & Nichols, Inc. the highest and recommended the firm as most qualified based five factors: 1) experience of the firm, 2) experience of the key personnel with specific experience in major water supply dams and major flood retention structures as well as water and wastewater treatment, 3) project approach and management plan, 4) capacity to meet the project requirements and timelines, and 5) past performance.

Freese & Nichols, Inc. has extensive experience with dams, reservoirs, levees, canals, and flood protection systems. Some of the previous projects that were completed by Freese and Nichols, Inc. at Wesley Seale Dam include dam stabilization repairs, crest gate rehabilitation, instrumentation system, sluice gate replacement, and outlet rehabilitation.

ALTERNATIVES:

Council could choose not to award the contract to Freese & Nichols, Inc. Not awarding the contract for professional services to Freese & Nichols, Inc., will delay necessary improvements and may affect the ability to satisfy the safety, operational, and regulatory requirements.

FISCAL IMPACT:

The fiscal impact to FY 2023 is an amount not to exceed \$358,005.32 with funding available through the Water Capital Fund.

Funding Detail:

Fund: **Water 2015 MRP2 (Fund 4095)**
Mission Elem: Water Treatment Raw (061)
Project: Wesley Seale Dam Instrumentation Testing and Rehabilitation (Project No. 20258)
Account: Outside Consultants (550950)
Activity: 20258-A-4095-EXP
Amount: \$285,047.00

Fund: **Water 2023 CIP (Fund 4486)**
Mission Elem: Water Treatment Raw (061)
Project: Wesley Seale Dam Instrumentation Testing and Rehabilitation (Project No. 20258)
Account: Outside Consultants (550950)
Activity: 20258-A-4486-EXP
Amount: \$72,958.32

Total: \$358,005.32

RECOMMENDATION:

Staff recommends approval of the professional services contract with Freese & Nichols, Inc., in an amount not to exceed \$358,005.32 for the Wesley Seale Dam Instrumentation Rehabilitation project. The design phase will begin in October 2022 with estimated design completion by November 2023.

LIST OF SUPPORTING DOCUMENTS:

Location & Vicinity Maps
Evaluation Matrix
Proposal
Presentation
20258 FY 2023 CIP Pages