



AGENDA MEMORANDUM

Action Item for the City Council Meeting of March 29, 2022

DATE: March 29, 2022

TO: Peter Zanoni, City Manager

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Professional Services Contract

Wesley Seale Dam Crest Gate Rehabilitation and Dewatering System

CAPTION:

Motion awarding a professional services contract to Freese and Nichols, Inc., Corpus Christi, Texas, to provide design, bid and construction administration phase services for the Wesley Seale Dam Crest Gate Rehabilitation and Dewatering System projects, in an amount of \$2,053,094.00, with funding available from the Water Capital Fund. The total design budget available for these project is \$2,907,000. The fiscal impact for FY 2022 is an amount of \$2,053,094.00 with funding available from the Water Capital Fund.

SUMMARY:

This motion authorizes approval of a professional services contract to provide design, bid and construction administration phase services for the Wesley Seale Dam Crest Gate Rehabilitation and Dewatering System project.

BACKGROUND AND FINDINGS:

The Wesley Seale Dam is located on the Nueces River, four miles west of Mathis, Texas, at the intersection of the Live Oak, San Patricio, and Jim Wells counties 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 256,339 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 and is composed of an earth fill embankment and two concrete spillways with 60 gates. The normal release of approximately 150 acre-feet of water per day, for

operating purposes, is made through a 48" bypass pipe. The crest gates are only used when excessive water needs to be released during flood events.

This project was initially planned to be designed and constructed as 2 separate projects: Wesley Seale Dam Crest Gate Rehabilitation project (21029) and Wesley Seale Dam Dewatering System project (20278). The projects were then combined into one project due to the coordination involved between the 2 projects.

The project scope of work is developed based on an inspection of the dam performed by Texas Commission on Environmental Quality (TCEQ) in March 2017. The inspection identified the need to develop a rehabilitation program for both the South and North spillway crest gates. The spillway crest gates were last rehabilitated and recoated approximately 25 years ago. It is typical to recoat metal facilities every 10-15 years. In addition, a dewatering system to allow for maintenance of the gates and individual spillways is not available at the site. This project will facilitate maintenance of the existing 60 Crest Gates at the Wesley Seale Dam over the next six years as well as the design and construction of a robust dewatering system.

The detailed project design and construction scope includes:

- Topographic survey of the spillway bridges, piers, gates, and other appurtenances at both the South and North spillways
- Physical Hydraulic Model Study and US Army Corp of Engineer permitting
- Existing Spillway Gate Inspection, Structural Analysis, Evaluation and Reports
- New Spillway Crest Gate Design for the first 10-gates
- Detailed Design of Pier and Deck Modifications
- Detailed Design of Stoplog Dewatering and Deployment Systems for North and South Spillways
- Dewatering Construction Drawings and Specifications for North and South Spillways
- Bid Phase services for Stoplog Dewatering and Deployment Systems for North and South Spillways as well as first 10 Spillway Crest Gates.
- Construction Phase services for Stoplog Dewatering and Deployment Systems for South Spillway

PROJECT TIMELINE:

2022 - 2023	2023			2024 - 2025
May (2022) - October (2023)	O	N	D	January (2024) - November (2025)
Design	Bid/Award			Construction

Following approval of the contract, the attached project schedule reflects; design of South spillway dewatering system from May 2022 to October 2023; design of spillway crest gates (first 10 – phase 1 of 6) from May 2022 to April 2024; construction bid and award in various time periods as shown and construction of South spillway dewatering system from June 2024 to September 2024.

COMPETITIVE SOLICITATION PROCESS:

This project was initially planned to be designed and constructed as 2 separate projects: Wesley Seale Dam Crest Gate Rehabilitation project and Wesley Seale Dam Dewatering System project. Hence the project was RFQ'd as 2 separate projects.

Wesley Seale Dam Spillway Crest Gates Rehabilitation: Freese & Nichols, Inc. was selected for FY 2018 Capital Improvement Projects, Group B Utilities Projects in April 2018 under RFQ 2018-01. Wesley Seale Dam Spillway Crest Gates Rehabilitation was one of fourteen awards that were announced under the Utility Projects Category. Freese & Nichols was selected from two qualified respondents for the Wesley Seale Dam Spillway Gates Rehabilitation project

Wesley Seale Dam Dewatering System project: Freese and Nichols, Inc. was selected for RFQ under 2019-01 Professional Services, Exhibit A in June 2019 under RFQ 2019-01. Wesley Seale Dam Dewatering System was one of seven awards that were announced under the RFQ. Freese & Nichols was the only qualified respondent for the Wesley Seale Dam Dewatering System project.

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 on five factors: 1) experience and qualifications of the firm, 2) experience and qualifications of the project manager (key personnel with specific experience in major water supply dams and major flood retention structures), 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 & Nichols, Inc. at Wesley Seale Dam include dam stabilization repairs, crest gate rehabilitation, instrumentation system, sluice gate replacement, and outlet rehabilitation.

ALTERNATIVES:

Not awarding the professional services contract to Freese and Nichols, Inc. will delay necessary improvements to the Wesley Seale Dam and may affect the ability to meet the safety, operational and regulatory requirements recommended in Wesley Seale Dam gate seals evaluation report 2010, inspection report 2017, and dewatering alternatives report 2018 as well as jeopardize the reliability of the City's water supply.

FISCAL IMPACT:

This project was initially planned to be designed and constructed as two separate projects: Wesley Seale Dam Crest Gate Rehabilitation project (21029) and Wesley Seale Dam Dewatering System project (20278). The project was then combined into one project due to the coordination involved between the two projects. Wesley Seale Dam Crest Gate Rehabilitation project has a design budget of \$900,000 and Wesley Seale Dam Dewatering System project has design budget of \$2,007,000. Wesley Seale Dam Dewatering System project was initially planned to be implemented in FY 2021 but rolled into FY 2022 due to the merger of the projects. There were no prior year expenditures on both projects. The Wesley Seale Dam Dewatering System project FY CIP 2022 page has been revised to reflect the information. The total design budget available for these project is \$2,907,000. The fiscal impact for FY 2022 is an amount of \$2,053,094.00 with funding available from the Water Capital Fund.

FUNDING DETAIL:

Fund:	Water 2015 MRP2 (Fund 4095)
Mission Elem:	Water Distribution (041)
Project:	Wesley Seale Dewatering System and Spillway Gates Rehabilitation (22023) Reference project 20278 and 21029 in the FY21-22 CIP.
Account:	Outside Consultants (550950)

Activity: 22023-4095-EXP
Amount \$2,053,094.00

RECOMMENDATION:

Staff recommends approval of the professional services amendment contract with Freese and Nichols, Inc. in the amount of \$2,053,094.00 to provide design, bid and construction administration phase services for the Wesley Seale Dam Crest Gate Rehabilitation and Dewatering System to be fully designed and ready for construction of the South Spillway dewatering system in October 2022; first 10 Spillway Crest Gates in April 2023; and North Spillway dewatering system in July 2023.

LIST OF SUPPORTING DOCUMENTS:

Project Schedule
Location & Vicinity Maps
Professional Services Agreement
Presentation
20278-21029 FY 2022 CIP Pages