



AGENDA MEMORANDUM

Future Item for the City Council Meeting of October 25, 2016
Action Item for the City Council Meeting of November 1, 2016

DATE: October 18, 2016

TO: Margie C. Rose, City Manager

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Engineering Agreement

Wesley Seale Dam Instrumentation Testing and Replacement

CAPTION:

Motion authorizing the City Manager, or designee, to execute a contract for professional services with Freese and Nichols, Inc. of Corpus Christi, Texas in the amount of \$447,020 for the Wesley Seale Dam Instrumentation Testing and Replacement project.

PURPOSE:

The purpose of this agenda item is to execute the contract for professional services with Freese and Nichols, Inc. for the Wesley Seale Dam Instrumentation Testing and Replacement project.

CIP DESCRIPTION: Wesley Seale Dam Instrumentation Testing and Replacement

This project provides for improvements to the original instrumentation system including annual safety inspection, integration with O.N. Stevens Water Treatment Plant process controls, the Howell-Bunger Valve, the downstream sluice gates, and the dewatering system, in response to previous inspection and priority investment recommendations into the system. This project will protect the integrity of the Wesley Seale Dam system (1957), to provide for proper inspection and updated regulatory reports per Texas Commission on Environmental Quality (TCEQ).

BACKGROUND AND FINDINGS:

This project provides for the five-year inspections of the conditions and operations as required by the Texas Commission on Environmental Quality (TCEQ) regulatory requirements for high hazard dams. The final report will include recommendations for short and long-term maintenance and prioritized repairs based on funding, need and cost effectiveness.

The dam was constructed in 1958 with three earthen embankment sections, two 40-foot-high concrete spillways and the outlet tower. The concrete spillways include 60 crest gates that protect from uncontrolled water overtopping the dam during large storm events. The outlet tower includes seven sluice gates and a 48-inch diameter low flow release valve. Three of the sluice gates provide for the intake (upstream) to the tower and three outfall (downstream) gates. The seventh sluice gate serves as maintenance of the 48-inch low flow release valve. The valve provides the optimal controlled low flow release. The sluice gates serve as redundant controlled low flow and maintenance of the valve. The outlet tower provides the municipal/industrial water supply, downstream water rights, and freshwater releases required under the agreed order.

The sluice gates and the 48-inch valve are beyond their service life and need replacement to ensure continued reliable operations. The crest gates also require improvements for the protective coating system, seals, and miscellaneous structural repairs. This project also provides for a feasibility study to replace the dewatering system that is required for the maintenance to the crest gates. The previous dewatering system was decommissioned in 2008.

The planned improvements include the following:

- Wesley E. Seale Dam safety inspection and reports with prioritized list of maintenance and repair actions
- Inspection of the salt water barrier dam (Calallen Reservoir Dam)
- Sluice gates and Howell-Bunger valve replacement (Phase 2)
- Wesley E. Seale Dam dewatering system study

Freese and Nichols was selected as the Consultant Engineer through the Request for Qualifications 2012-03 Bond Issue 2012 and CIP Projects.

ALTERNATIVES:

1. Authorize the execution of the contract.
2. Do not authorize the execution of the contract. (Not Recommended)

OTHER CONSIDERATIONS:

N.A.

CONFORMITY TO CITY POLICY:

Conforms to City Fiscal Policy

EMERGENCY / NON-EMERGENCY:

Non-Emergency

DEPARTMENTAL CLEARANCES:

Utilities Department

FINANCIAL IMPACT:

Operating ☐ Revenue ☒ Capital ☐ Not applicable

Fiscal Year 2016-2017	Project to Date Budget & Expenditures	Current Year	Future Years	TOTALS
Line Item Budget	\$850,600	\$2,000,000	\$3,000,000	\$5,850,600
Encumbered / Expended Amount	\$50,600			\$50,600
This Item		\$447,020		\$447,020
Future Anticipated Expenditures This Project		\$1,552,980	\$3,669,986	\$5,222,966
BALANCE	\$800,000	\$0	(\$669,986)	\$130,014

Fund(s): Water Supply CIP #4

Comments: This contract will result in an expenditure not to exceed \$447,020.

RECOMMENDATION:

City Staff recommends approval of the contract for professional services with Freese and Nichols, Inc. of Corpus Christi, Texas in the amount of \$447,020 for the Wesley Seale Dam Instrumentation Testing and Replacement project.

LIST OF SUPPORTING DOCUMENTS:

Project Budget
Location Map
Contract
Presentation
Form 1295