



AGENDA MEMORANDUM

Action item for the City Council Meeting of September 19, 2023

DATE: September 8, 2023

TO: Peter Zanoni, City Manager

FROM: Drew Molly, Director of Water Systems and Support Services
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**Joint Funding Agreement with the United States Geological Survey (USGS) for
Automated River Gauging Station Monitoring**

CAPTION:

Motion authorizing a Joint Funding Agreement with the United States Geological Survey (USGS), United States Department of the Interior, for USGS to maintain automated river gauging stations that record stream flows and water quality parameters associated with the Frio and Nueces Rivers and associated tributaries, which is data the City uses daily to manage releases from the City's reservoir system and for water treatment operations, whereby the USGS contributes \$28,950.00 and the City contributes \$169,350.00.

SUMMARY

The motion authorizes the City to contribute \$169,350.00 to maintain automated river gauging stations along the Frio River, Nueces River, and associated tributaries, which the City uses to record stream flows and water quality information as well as to manage daily inflows and releases from the City's reservoir system. Knowledge of the incoming raw water quality allows the City's Water Treatment Plant Operators to optimize the treatment process, and knowledge of the inflows to Lake Corpus Christi and Choke Canyon Reservoir allows the City's Dam Operators to adjust the downstream releases to protect public safety, maintain as much water as possible in the reservoirs, and protect the integrity of the dams.

BACKGROUND AND FINDINGS:

The City utilizes the USGS automated river gauging stations to record all inflows and releases in the reservoir system to properly manage the diversion of raw water and health of the reservoir system, in addition to water quality monitoring.

To better manage the treatment of water at O. N. Stevens Water Treatment Plant, the gathering of real-time water quality data from the Nueces River prior to the intake pumps is critical. Streamflow gauges are the primary system used by the City’s Dam Operations team at Choke Canyon Reservoir and Lake Corpus Christi to track water levels in and out of the City’s reservoirs, which gives the operations essential data to maintain reservoir levels, ensure Dam safety, and provides a means of early flood warning to protect public safety.

The contract period is October 1, 2023 through September 30, 2024.

ALTERNATIVES:

The alternative would be to eliminate the City’s knowledge of inflows and outflows to the reservoir system, lake levels, the City would not know how to plan for raw water diversions and flood mitigation. Knowledge of the incoming raw water quality allows the City’s Water Treatment Plant Operators to optimize the treatment process, and knowledge of the inflows to Lake Corpus Christi and Choke Canyon Reservoir allows the City’s Dam Operators to adjust the downstream releases to protect public safety, maintain as much water as possible in the reservoirs, and protect the integrity of the dams.

FISCAL IMPACT:

The motion authorizes the City to contribute \$169,350.00 in FY 24 to USGS to maintain automated river gauging stations along the Frio and Nueces Rivers and associated tributaries, which the City uses to record stream flows and water quality information as well as to manage daily inflows and releases from the City’s reservoir system.

Funding Detail:

Fund:	4010	Water Fund
Organization/Activity:	30200	Water Wesley Seale Dam, 30210 Choke Canyon Dam
Department:	45	Water
Account:	530000	Professional Services

RECOMMENDATION:

Staff recommends approval of the Joint Funding Agreement with the USGS with a City contribution of \$169,350.00

LIST OF SUPPORTING DOCUMENTS:

Joint Funding Agreement