City of Richwood
TEXAS

AGENDA MEMORANDUM

CONTACT: CLIF CUSTER

SUBJECT: PRELIMINARY ENGINEERING (ELEVATED WATER STORAGE)

SUMMARY:

Planning and engineering for water system infrastructure upgrades takes considerable amounts of time. Staff wishes to begin the planning process immediately for additional elevated water storage capacity in the City of Richwood.

BACKGROUND INFORMATION:

Public Water systems in the State of Texas are held responsible for maintaining compliance with five (5) separate criteria set by the TCEQ.

1. Water Distribution Pressure
2. Total Water Storage
3. Elevated Water Storage
4. High Service Pump Capacity
5. Water Production

Richwood is currently out of compliance with items 1, 4, and 5. The addition of the North Water Plant will bring the city back into compliance with these items. An additional item noted in Freese and Nichols 2017 Capital Improvements Project Study was the need for additional elevated storage capacity. Based on calculations from staff, at the time of development of all properties currently developed or being developed in Richwood, Richwood's connection count will represent a demand of 85% of Richwood's capacity to serve its customers with regards to elevated storage capacity.

The 85th percentile of a Public Water System's capacity to serve is the maximum demand allowable by TCEQ before planning must begin for infrastructure upgrades to ensure continued compliance by the Public Water System. Based on staff's knowledge of Richwood's potential future connection count, it is felt that preliminary engineering is the first logical step in planning for increased elevated storage infrastructure. Preliminary engineering will provide much needed answers for questions such as:

1. How much additional elevated storage capacity is necessary to accommodate Richwood's growing population into the future?
2. What location will serve best for additional elevated storage considering Richwood's water system distribution's geographical layout?
3. Will increased static pressures (higher elevated towers) be required to effectively serve Richwood's utility customers within the distribution's geographical layout

FISCAL IMPACT:

This engineering initiative will cost and estimated $30,000.00. The initiative will be funded utilizing revenue generated from impact fees. A new elevated tower project is 100% eligible for funding from impact fee revenue as it is a project to accommodate growing populations and demand within Richwood's water system.

RECOMMENDATION:

I recommend that Council make a motion to approve Strand Associates Task Order in an amount not to exceed $30,000.00 to perform preliminary engineering for additional elevated storage capacity for the City of Richwood