

AGENDA ITEM REPORT

K.5



To: Town Council

Subject:

Discuss, consider and act upon awarding an engineering design contract to Freeman-Millican, Inc., in the amount of \$799,600 for the surveying and design of improvements to the Riverstone Pump Station and authorizing the Town Manager to execute the contract.

Meeting: Town Council - April 28, 2025

Department: Engineering

Staff Contact: Matt Holzapfel

SUGGESTED ACTION:

Staff recommends approval.

BACKGROUND INFORMATION:

The Riverstone Pump Station was initially constructed in 1997 and was designed by Freeman-Millican, Inc. (FMI). The principal engineering designer was Terry Millican, P.E. with assistance from Damir Lulo, P.E. and other FMI staff members. The initial pump station was constructed with a 0.5-million-gallon steel ground storage tank, yard piping, pump electrical control room, two 200-HP pumps, and associated site improvements. In 2003 Freeman-Millican, Inc. designed additional Riverstone Pump Station pumping and electrical improvements to add a third 200-HP pump, a 200kW diesel emergency generator and upgrades to the HVAC system to improve electrical equipment cooling.

The 2017 Water Distribution System Master Plan (by Freese & Nichols, Inc.) projected a 2027 population of 8,129 and a need to complete improvements to the Riverstone Pump Station by that date to support a peak hour pumping of 11.42 million gallons per day (MGD). The Town's growth has far exceeded these projections made by Freese & Nichols as the Town's population is currently at 10,000. Therefore, pump station improvements are needed to reliably supply the continued growth of the Town.

The subject engineering design contract for the Riverstone Pump Station has the following scope items:

- Upgrade of the existing NTMWD Valve Vault per NTMWD Requirements.
- Paralleling of the existing 16-inch supply line from NTMWD vault to the new ground storage reservoir (GSR).

- Design of 3.5 MG Ground Storage Reservoir, above ground prestressed concrete type, including level monitoring, mixing and pump low-level lockout.
- New 3.0 to 3.5 MG Ground Storage Reservoir will be equipped with an electric mixer to prevent water stratification, improve water quality and reduce sedimentation settlement.
- New 36-inch header and suction piping.
- Replacement of three existing 200-HP pumps and motors with new 300 to 350-HP pumps and motors.
- Enclosure of all pumps in a CMU room (architectural, structural, mechanical and electrical design).
- Electrical Design: New Switchboard and Automatic Transfer Switch.
- Electrical Design: Three (3) new VFDs (300HP-350HP) **
- Electrical Design: Three (3) new electromagnetic flow meters **
- Discharge pipeline improvements from the pump station to tie-in at Planter's Road.
- Site storm water drainage improvements.
- Rehabilitation/replacement of site fencing, landscaping and irrigation systems.
- Generator Access Driveway.
- Emergency generator design to handle firm pump station capacity. The existing emergency generator and the existing automatic transfer switch can be repurposed for another Town facility (such as the Service Center, new animal shelter or Town Hall).
- Design of the water quality installation, including chlorination, ammonization, emergency scrubber and Personal Protective Equipment (PPE).
- Demolition plan for the existing 0.5 MG steel tank once the 3.5 MG tank is operational. Explore yard piping modifications to allow the building of a second ground storage tank on the existing site of the 0.5 MG steel tank to produce a "make-ready" location for that tank should the Town feel that further storage at Riverstone is advisable.
- Platting of the Riverstone PS tract and two town-owned tracts that encompass the Riverstone Pump station along with what will be the new animal shelter.
- Prepare easements for the water and sewer line currently located inside tracts.
- Possible plans for relocating existing utilities on the site (water and sewer) if they become an obstacle to building the animal shelter or the pump station improvements.
- Writing of a digital pump station (PS) operations manual with QR codes on equipment with links to digitized maintenance schedules, checklists and equipment drawings and manuals.
- Preparation of the bidding package in a digital form for bidding via CivCast. Management of the bidding process in the CivCAST bid hosting site.
- Construction project management and inspection.
- Investigate existing SWBTC/AT&T easement that cuts through the site in Dallas County Court House (third-party service).
- Site Topo Survey, Control Survey and Plat Boundary Survey and prepare Plat

The contract is attached to the agenda item with a detailed scope and fee break down. In addition, a tentative design and construction schedule is attached to the contract.

Design would start immediately upon Town Council approval of the contract with a tentative construction start date of March 2026 (43-weeks) after design notice to proceed (NTP). Construction will take approximately 18-months with an estimated completion date of September 2027.

FINANCIAL IMPACT:

Funding for the design and construction of the Riverstone Pump Station improvements will be funded by water and sewer revenue, water bond sales and water impact fees revenue.

ATTACHMENTS:

[2025-04-17 Riverstone PS Eng Contract-FMI-Final.pdf](#)