

CITY OF BASTROP

Simsboro Aquifer Water Treatment Plant, Well Field and Transmission Facilities-GMP1

**City Council Meeting
August 9, 2022**

**Engineering and
Capital Project Management Department**



Background

- In 2018:
 - City approved an engineering services agreement with Freese and Nichols, INC. (FNI) for the preliminary design
- In 2020:
 - City approved an engineering services agreement with FNI for the design and construction administration services
 - FNI's recommendation of construction manager at risk (CM@Risk) delivery method and
 - City approved the use of CM@Risk delivery method



Background

- In 2021:
 - City advertised a Request for Qualifications (RFQ) for the use of CM@Risk for the design phase services
 - City received 7 Statement of Qualifications (SOQs)
 - Selection Committee comprised of City staff selected Archer Western as the most qualified
 - City approved a professional services contract with Archer Western



Project Overview

- The City is intending to convert its water supply source from shallow alluvial wells fed by the Colorado River, to deep wells that draw from the Simsboro Aquifer, with a water supply:
 - More reliable
 - More resilient
 - Better quality



Project Overview

- The whole project consists of:
 - A new well field and production facilities:
 - 3 wells to meet Phase 1 demands (avg capacity 3 MGD, peak capacity 6 MGD)
 - water collection piping and access roads
 - Groundwater Treatment Facilities:
 - gravity filtration with green sand media for iron and manganese removal
 - chemical building and filter building



Project Overview (cont.)

- Low Lift pump station:
 - water will be pumped from filter effluent to a 0.5 MG clearwell
- Clearwell (above grade Ground Storage Tank):
 - 0.5 MG prestressed concrete tank
- Backwash pump station
 - Backwash pumps will pull water from clearwell



Project Overview (cont.)

- Transmission facilities to transfer finished water from treatment plant to Willow Plant for pumping to distribution system
 - 24" pipeline, normally operating by gravity in Phase I
 - standby backwash pump can serve as transfer pump (to extend useable volume of clearwell)
 - future transmission pump station for build-out

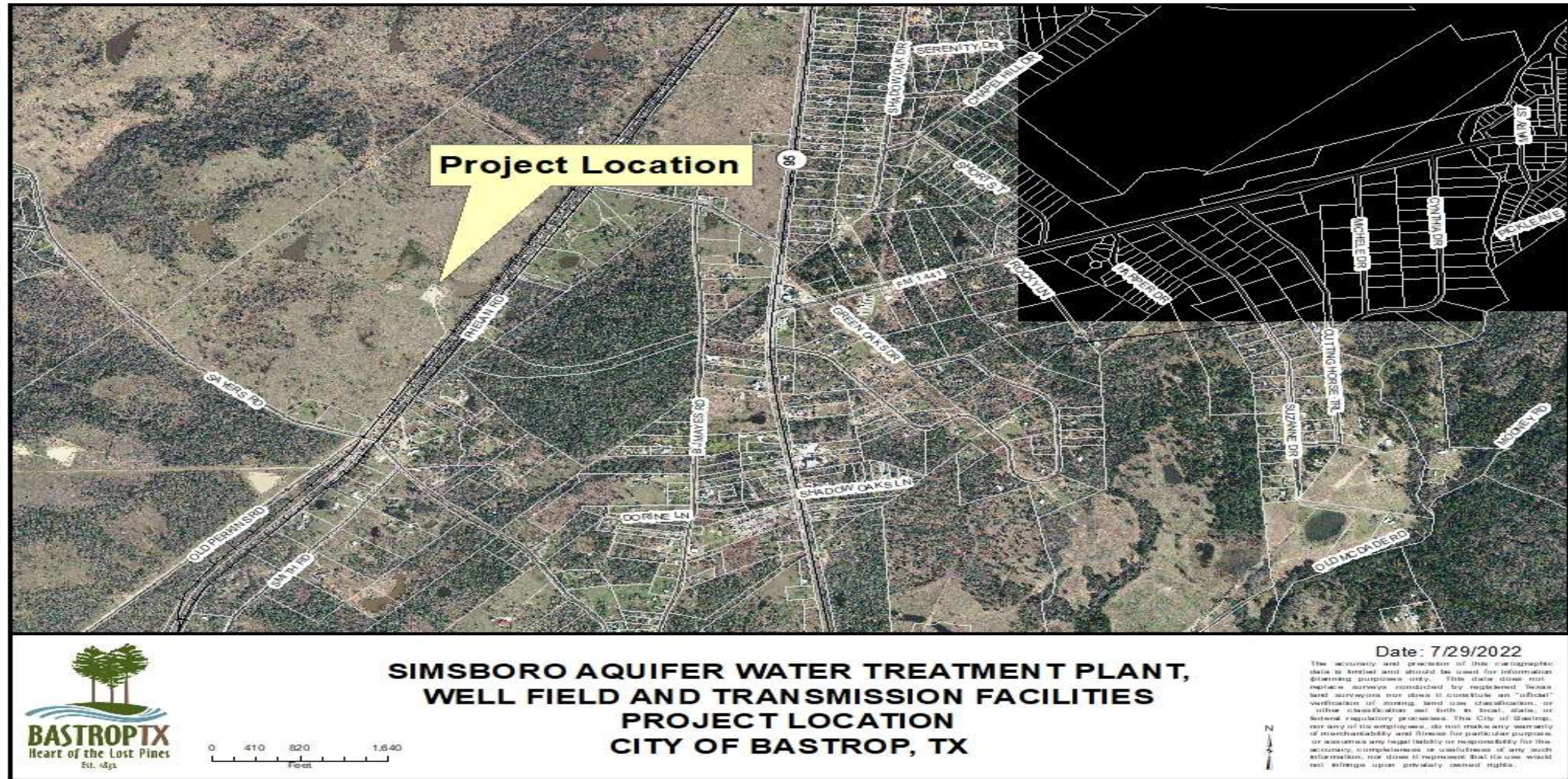


Project Overview (cont.)

- Lift Station and Force Main:
 - Convey backwash water and wastewater generated at the WTP to City's collection system
- Other work:
 - Electrical, instrumentation, site access and improvements, etc.



Project Location



Project Team

- City:
 - Project Manager: Fabiola M. de Carvalho, AMP MIAM
 - Construction Manager: Rene Aguilar, P.E.
 - Project Owner: Curtis Hancock
- FNI:
 - Project Manager: Kira Iles, P.E.
 - Principal: Kendall King, P.E.
 - Construction Inspector/Manager: Kenneth Barnes



Project Team (cont.)

- Archer Western:
 - Program Principal: Mark Tepera
 - Project Manager : Thor Benson



CMAR Selection and GMP Process

- Archer Western selected as CM@Risk for design phase services: March 23, 2021
- Work is advertised as packages, bids analyzed to select contractor offering the best value to the City
- CMAR may bid on work packages, and are reviewed as any other bidder
- Total of all work packages, plus CMAR fee, contingency = Guaranteed Maximum Price (GMP)



CMAR Selection and GMP Process

- CM@Risk advertised on July 6, 2022 for construction services for the Clearwell and Well Field (Drilling) work packages
- CM@Risk held a Bid Opening on July 27, 2022 and recommended as follows:
 - Weisinger: for the Well Field (Drilling) work package, and
 - Preload: for the Clearwell work package



Summary of Evaluation Results

Rank	Contractor/Well Driller	Project Cost	Total Score
1	Weisinger	\$6,025,000	91 ★
2	Hydro Resources	\$6,240,729	89
3	Alsay	\$7,026,950	86



Summary of Evaluation Results

Rank	Contractor/Clearwell	Project Cost	Total Score
1	Preload	\$1,480,800	93 ★
2	DN Tanks	\$1,591,430	90



Project Budget & Schedule

- Funding Source:
 - CO Bond Series 2021
- Notice to Proceed: August 2022
- Anticipated Completion: January 2024



Project Impact and Notification

- No service interruption to water, wastewater or traffic
- Notification Plan:
 - Provide project updates through Building Bastrop page



Staff Recommendation

Authorize the approval of the Construction Phase Services Contract for the Simsboro Aquifer Water Treatment Plant, Well Field and Transmission Facilities, GMP1 in the amount of \$8,931,902; authorizing the City Manager to execute all necessary documents; providing for a repealing clause; and establishing an effective date.



Questions

