

East Williamson County Expansion Trinity Well Blending Infrastructure Engineering Design Contract

***Presented by
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Central & Lower Basin Regional Manager***

**East Williamson County
Regional Water System
Raw Water Pipeline**

2021

**Intake Structure
15 MGD
Expandable to 50 MGD**

*Lake
Granger*

**EWC
Water Treatment Plant**

**Incoming Raw Water Pipeline
Capacity 50 MGD
3.6 Miles**

**Outgoing
Treated Water
Pipeline**

FM 1331

Feet

0

2,000



Aerial Imagery courtesy of Texas Imagery Service

Prepared by



Brazos
RIVER AUTHORITY

EWC-Expansion-BX16-Intake-Aerial.mxd



East Williamson County 13 MGD Water Treatment Plant

2021

Groundwater Well
Pipeline

Terminal
Storage

Incoming
Raw Water

Administration
Building

Sludge
Ponds

CR 496

Trinity Aquifer
Groundwater Well

FM 1331

Outgoing
Treated Water

fence
gate

Feet
0 500





East Williamson County Regional Water System Treated Water Pipeline

2021

In-coming
Raw Water
3.6 Miles

EWC
Water Treatment Plant

Outgoing Treated Water Pipeline
Capacity \approx 15 MGD
3.7 Miles

Delivery take point for
Jonah Water SUD

Delivery take point for
City of Taylor

Delivery take point for
Lone Star RWA

FM 1331

SH 95

Feet
0 2,000



Aerial Imagery courtesy of Texas Imagery Service

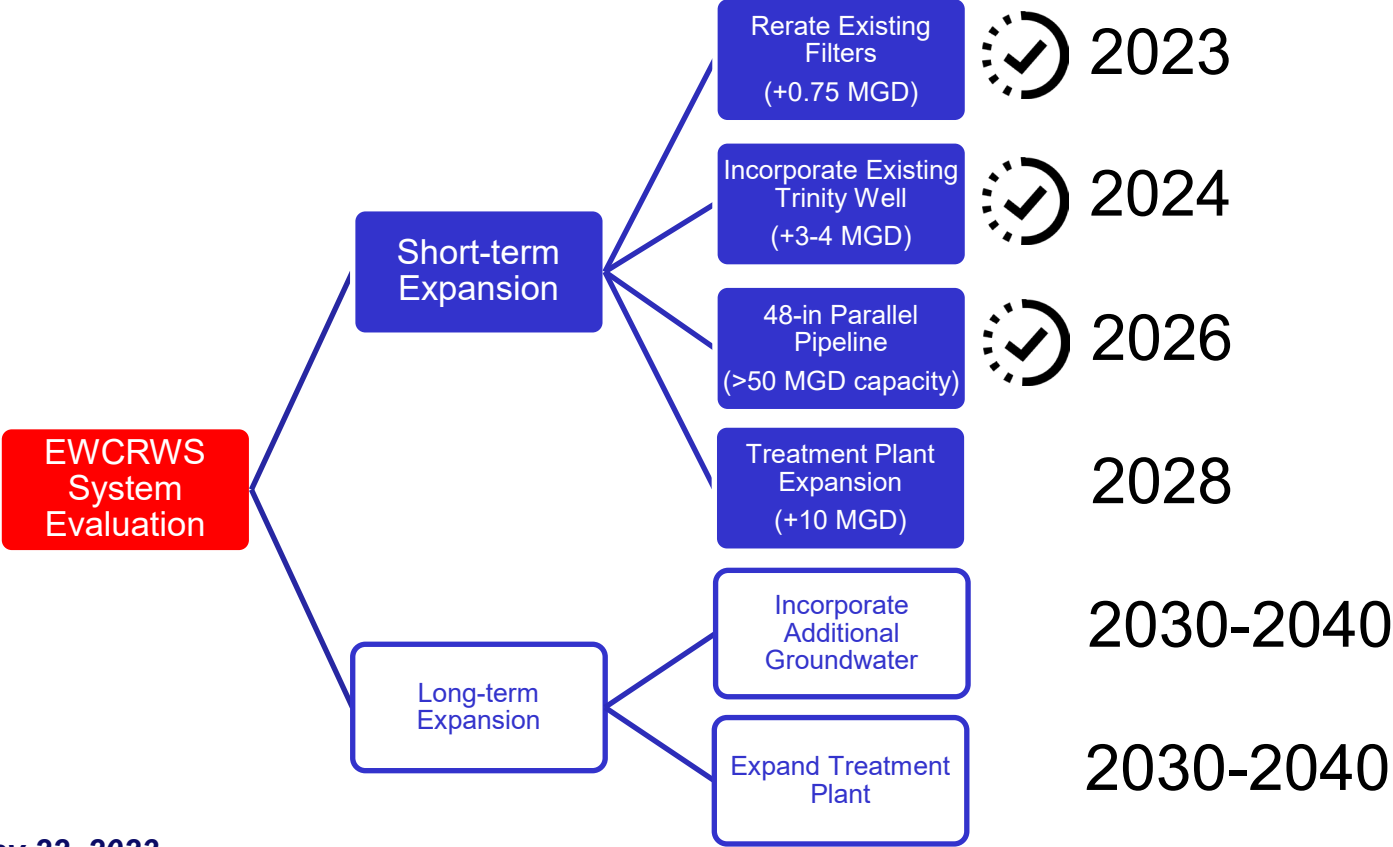


Project Objectives

- Expand EWCRRWS to meet customer demands:
 - Rerate Existing Filters
 - Construct 48-in Pipeline
 - **Incorporate Groundwater**
 - 10 MGD Surface Water Plant Expansion



Project Approach





Trinity Well



Current Infrastructure & Proposed Use

- Max capacity is \approx 4 MGD
- Construction complete in 2020
- Blended downstream of the treatment plant
- Used to meet max day demands

Proposed Infrastructure Improvements

- Cooling towers
- Pipe reconfiguration (bypass and blending)
- Groundwater disinfection system



Engineering Contract Tasks

- **Detailed Design**
 - 30/60/95% Design Submittals
 - Design Finalization
 - Bid Ready Documents
- **Bid Phase Services**
 - Assist with Pre- and Post- Bid Coordination
 - Conform Documents
 - Assist with Bid Evaluation
- **Engineering Services During Construction**
 - Submittal, RFI, and Change Order Review
 - Record Drawings
 - Substantial Completion and Final Inspection Site Visit/Checklist



Engineering Tasks Cont'd

- **Other Services to Support Design/Construction**
 - **Treatability Studies**
 - **Subsurface Utility Engineering**
 - **Surveying**
 - **Geotechnical Investigation**
 - **Regulatory and Agency Coordination (TCEQ)**
 - **Construction Materials Testing**
 - **Resident Project Representative Services**

Cost and Schedule

Design/Bid Phase Schedule & Cost	Duration	Cost
Design Phase	Month 1-8	\$1,319,279
Other Services Supporting Design	Month 1-20	\$955,918
Bid Phase Services	Month 8-11	\$142,762
Engineering Services During Construction	Month 12-20	\$660,249
Total	20 Months	\$3,078,208

“BE IT RESOLVED that the Board of Directors of the Brazos River Authority hereby authorizes the General Manager/CEO to negotiate and execute a professional services contract with CDM Smith, Inc., for all activities associated with the permitting, engineering, design services, and construction oversight services for the construction of Trinity well blending infrastructure engineering design contract to increase the finished water capacity for the East Williamson County Regional Water System, in an amount not to exceed \$3,386,029.”



**Brazos
River
Authority**