



# ***East Williamson County Expansion Pipeline***

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



# 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 SUD

Delivery take point for  
City of Taylor

Delivery take point for  
Lone Star RWA

FM 1331

SH 95



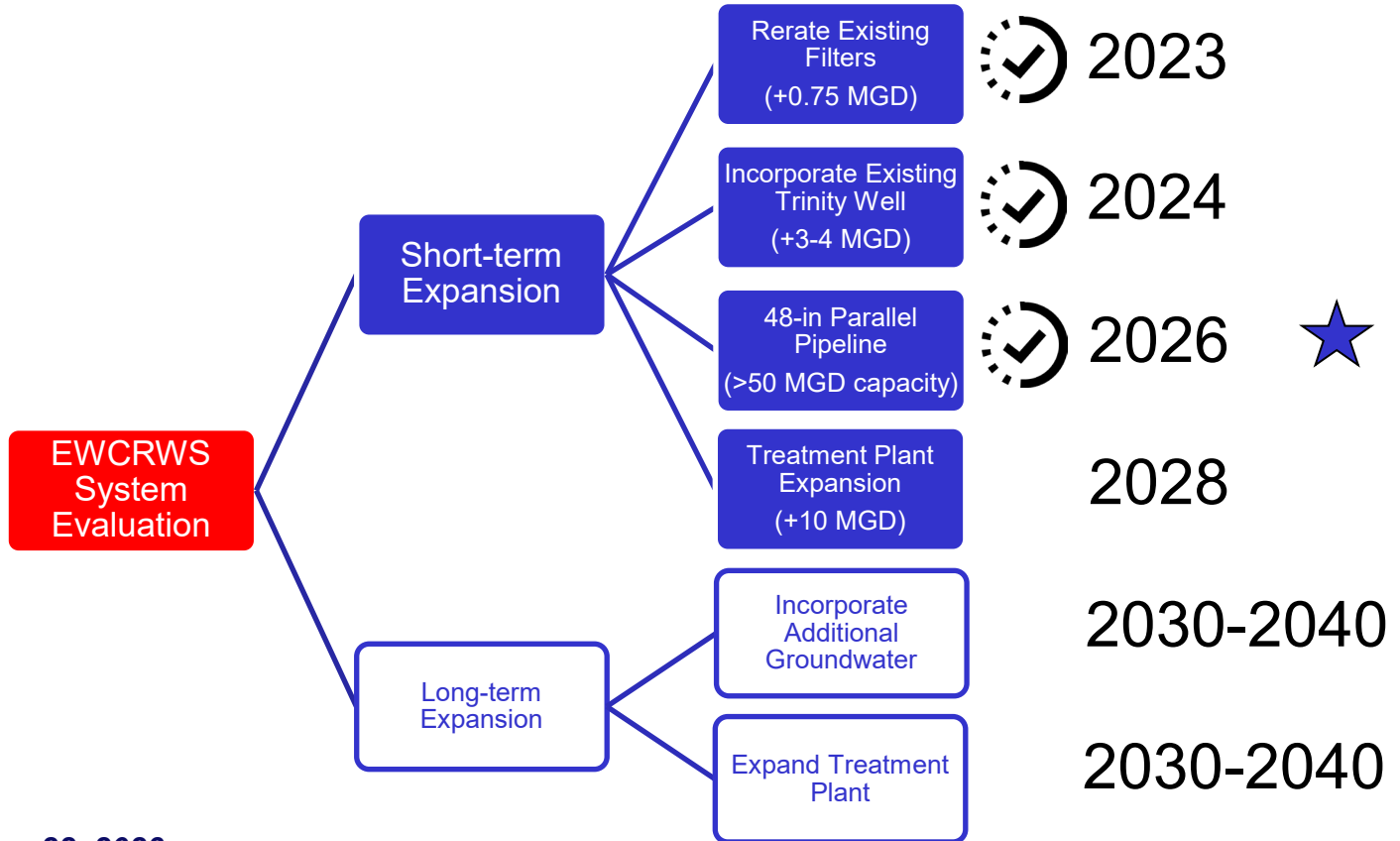


# *Project Objectives*

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

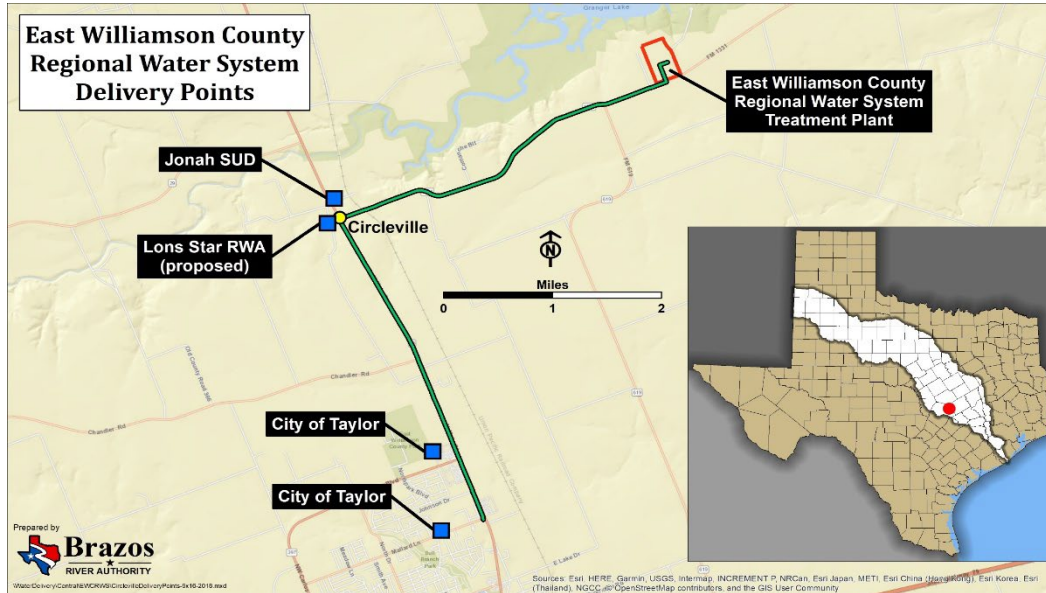


# Project Approach





# Pipeline



## Current 27-in Pipeline

- Max capacity is  $\approx$  15 MGD
- Built in 1990
- Possible single point of failure

## Proposed 48-in Pipeline

- Max capacity is  $\approx$  35 MGD
- Critical path for short-term expansion
- Provide system resiliency/ redundancy
- Existing 27-in pipeline will become dedicated to the City of Taylor



# ***Engineering Contract Tasks***

- **Data Acquisition and Review**
  - GIS, CAD, and Record Drawing Files for Utilities
  - Available Easements, Deeds, and Property Records
- **Detailed Design**
  - 10% Conceptual Design
  - 30/60/95% Detailed Design Submittals
- **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 Site Visit/Checklist



# ***Engineering Tasks Cont'd***

- **Other Services to Support Design/Construction**
  - **RPR Services**
  - **Transient Pipe Analysis**
  - **Corrosion Engineering Services**
  - **Surveying – Topographic and Subsurface Utility Engineering**
  - **Environmental Site Assessment, Investigation, and Permitting**
  - **Geotechnical Borings and Baseline Report**
  - **Regulatory and Agency Coordination (TCEQ, TXDOT, and Union Pacific)**
  - **Easement Acquisition**
  - **Construction Materials Testing**
  - **Traffic Control Plan**



# ***Cost and Schedule***

<b>Design/Bid Phase Schedule &amp; Cost</b>	<b>Duration</b>	<b>Cost</b>
Data Acquisition and Review	Month 1	\$20,538
Detailed Design	Month 1-18	\$813,645
Other Services Supporting Design	Month 1-21	\$1,576,515
Bid Phase Services	Month 18-21	\$58,630
Engineering Services During Construction	Month 21-33	\$307,624
<b>Total</b>	<b>33 Months</b>	<b>\$2,776,952</b>





**“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, property/right-of-way acquisition, and construction oversight services for the construction of a treated water pipeline between the East Williamson County Regional Water Plant and the customer delivery points at Circleville, Texas, in an amount not to exceed \$3,054,647.”**



**Brazos  
River  
Authority**