

**Red River Valley Association
Texarkana, Texas
May 30, 2018**



Riverbend Water Resources District

Who is Riverbend?

- ❑ Bowie County
- ❑ Cass County
- ❑ Red River County
- ❑ City of Annona
- ❑ City of Atlanta
- ❑ City of Avery
- ❑ City of De Kalb
- ❑ City of Hooks
- ❑ City of Leary
- ❑ City of Maud
- ❑ City of Nash
- ❑ City of New Boston
- ❑ City of Redwater
- ❑ City of Texarkana (TX)
- ❑ City of Wake Village
- ❑ TexAmericas Center (TAC)
- ❑ City of Red Lick*
- ❑ Central Bowie County WSC*

The Riverbend Water Resources District is a conservation and reclamation district that provides water and waste water services to the Red River Army Depot and the TexAmericas Center industrial, collectively a 40,000 acre-footprint. Riverbend formally represents through Interlocal Agreements the interests in water supply for the most northeastern region of the state of Texas, including 3 counties, 12 municipalities, and the largest industrial park footprint in Texas at ~12,000 acre-feet.

***Denotes supporting, non-member entities.**



What is Riverbend's Mission

- ❑ Riverbend was created (1) for the purpose of providing a regional governance structure for water resources, (2) in order to protect the ownership and distribution of the water resources of the region, and (3) to take leadership of the regional water infrastructure issues facing the region.

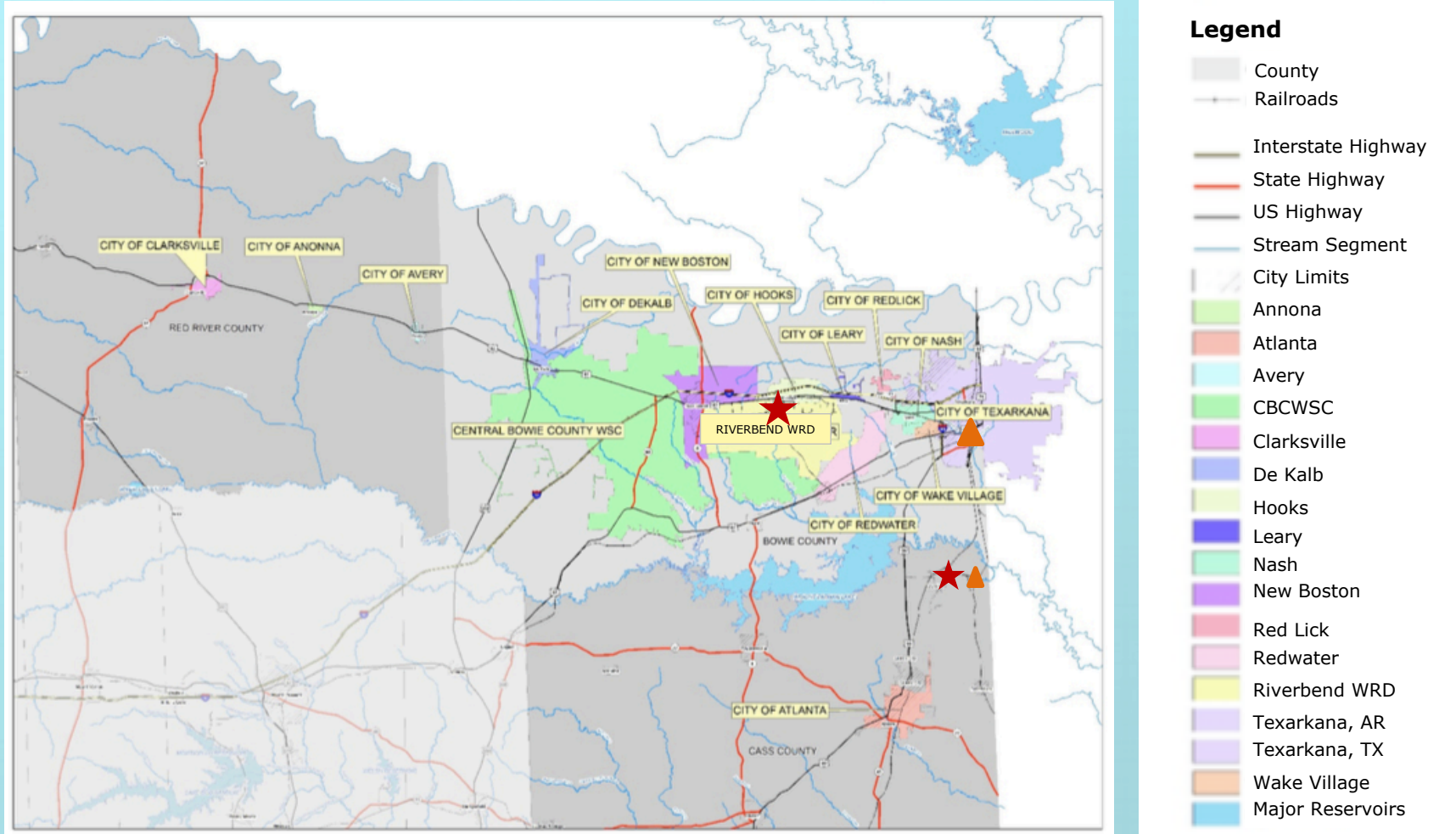
- ❑ **Two primary functions:**
 - Operational
 - Planning



Operational – Wholesale

- ❑ **Water User Group (Region D)**
- ❑ **Future**
 - Regional Water Treatment Plants
- ❑ **Current**
 - Red River Army Depot
 - TexAmericas Center

Operational – Wholesale



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Operational - Retail

- ❑ **Wet Utilities for Red River Army Depot[^]**
 - Operational Water Services
 - Domestic Wastewater Plant
 - Industrial Pre-Treatment Wastewater Plant

- ❑ **TexAmericas Center**
 - 30 MGD Raw Water by 2021 (latest 2026)

- ❑ **Member Entities**
 - Sampling and Repairs

[^]*U.S. Army Installation*



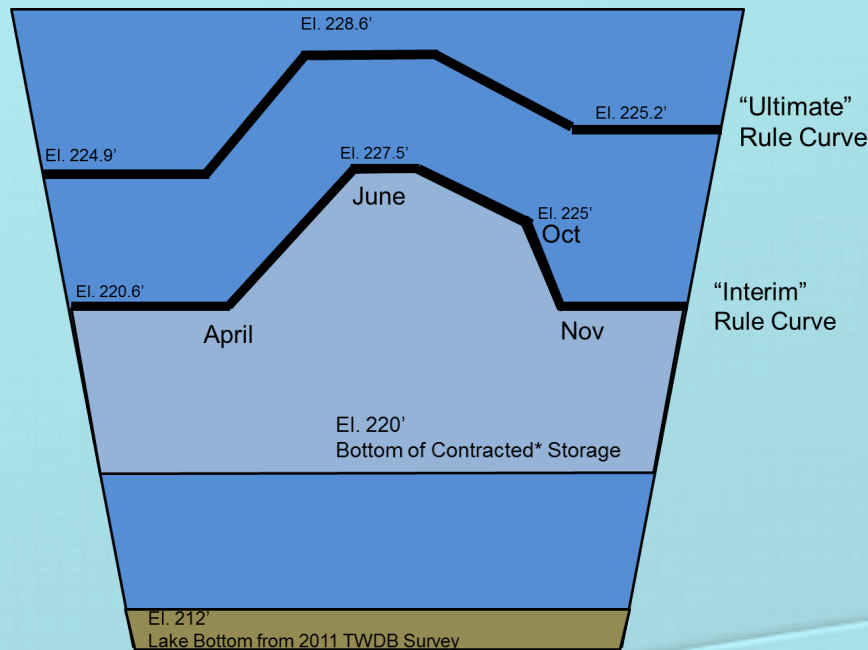
Planning

- ❑ Implementation of the Ultimate Rule Curve
- ❑ State Water Plan and Region D Planning
- ❑ Regional Water Master Planning
- ❑ Data Driven Planning
 - GIS Mapping (Phase I Sept 2018 + Phase II Dec 2018)
 - Water Availability Modeling (Dec 2018)
 - Industrial Pre-Treatment Wastewater Feasibility (Aug 2018)
 - Volumetric and Sedimentation Study (Sept 2018)
 - Hooks Wastewater Feasibility Study (Oct 2018)
- ❑ Continuation of Local, State, and Federal Engagement
- ❑ Implementation of Regional Infrastructure Upgrades
 - Preliminary Design of New Intake and Raw Water Line



Implementation of Ultimate Rule Curve

- ❑ Implementation of the Ultimate Rule Curve
- ❑ Contracts w/ US Army Corps of Engineers
 - 1968 – Interim Curve ~ 4 months operation 225-227.5
 - 1968 – Permanent Curve ~ 8 months operation 225-228.64

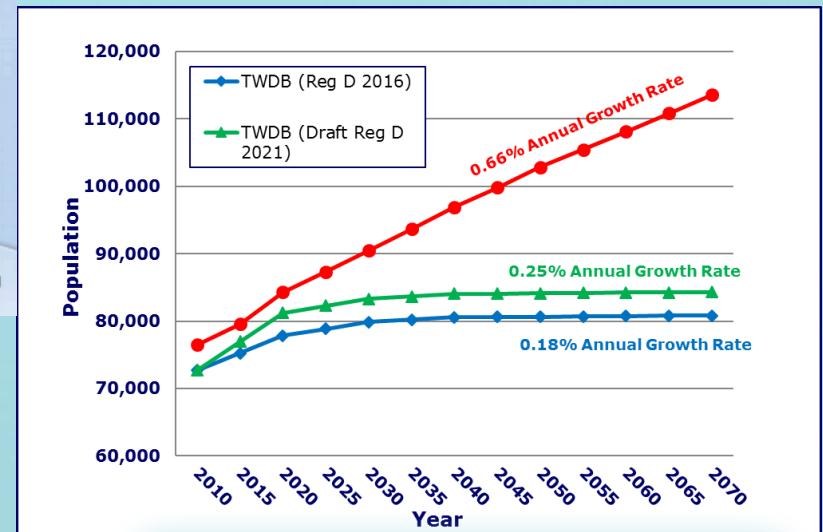


Planning

- ❑ Regional Water Master Plan (Adopted by TWDB April 2018)
 - High on Stakeholder Engagement

Name of Entity	2021 TWDB (Pop. & %Annual Growth)*		2016 TWDB (Pop. & %Annual Growth)	
	Pop.	%Annual Growth	Pop.	%Annual Growth
Central Bowie Co. WSC (Bowie Co.)	12,101	1.03%	7,937	0.64%
City of Atlanta (Cass Co.)	7,427	0.51%	5,818	0.04%
City of Clarksville (Red River Co.)	3,315	0.01%	3,016	0.02%
City of Redwater (Bowie Co.)	5,429	0.84%	1,134	0.12%
City of Texarkana (TX) (Bowie Co.)	47,102	0.43%	39,046	0.12%

* Data provided by participating entities; approved by TWDB Board on April 16, 2018



Planning

❑ Regional Water Master Plan

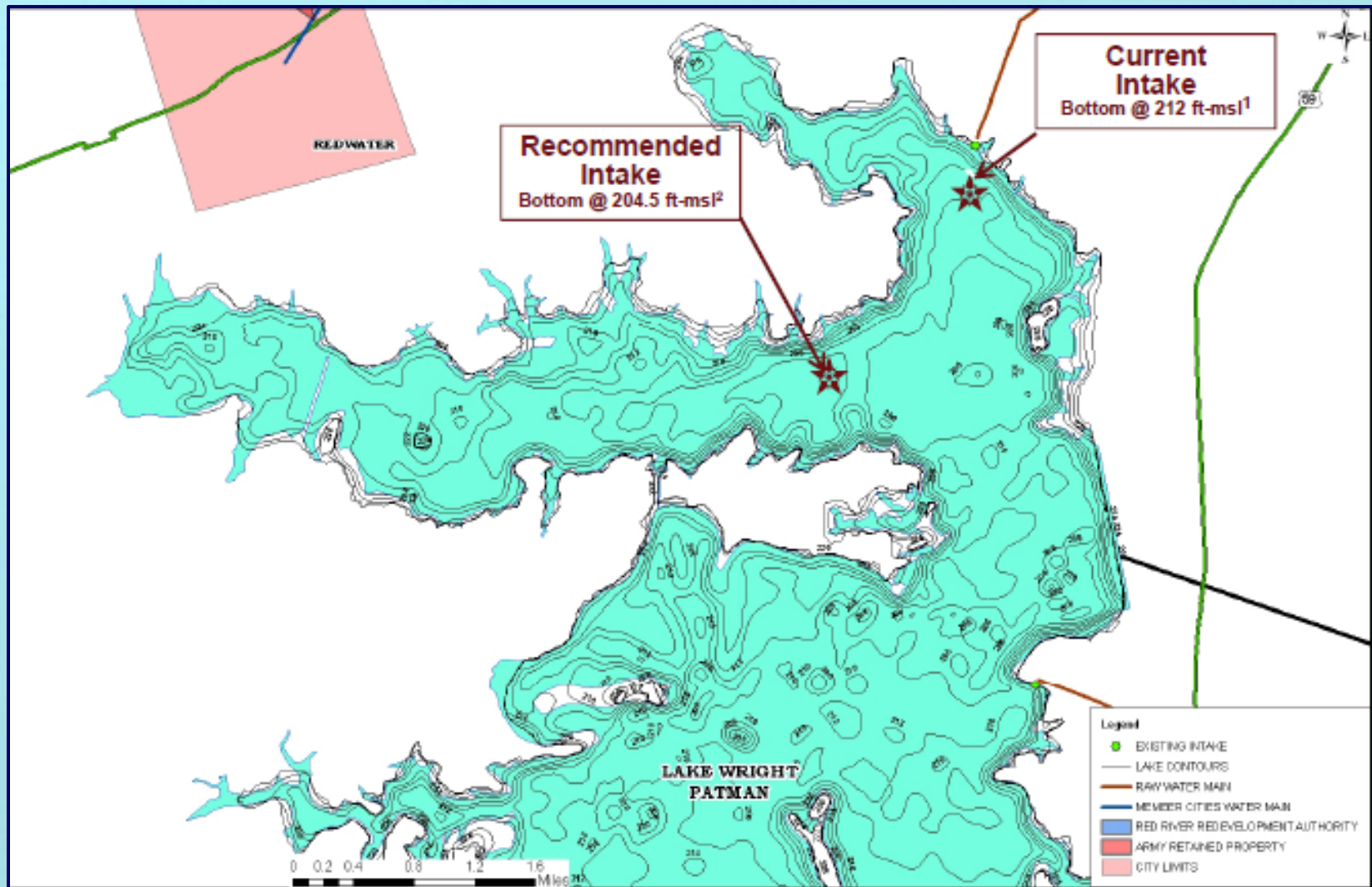
- Identification of Infrastructure Improvements (Short “Priority” List) for Further Cost Analysis:
 - Creation of New Intake and Raw Water Line to Riverbend Footprint @ TAC
 - Improvements to New Boston Rd Intake System and Pipeline;
 - Expansion or development of future water treatment in Cass County;
 - Development of new water treatment in Bowie County on or near Riverbend footprint @ TAC. Calculation of monthly, average and max day water demand data; and
 - Implementation of Ultimate Rule Curve.

❑ Water Rates Study

- Creation of an Affordable Roadmap for our region to pursue. Key word here is “affordability.”

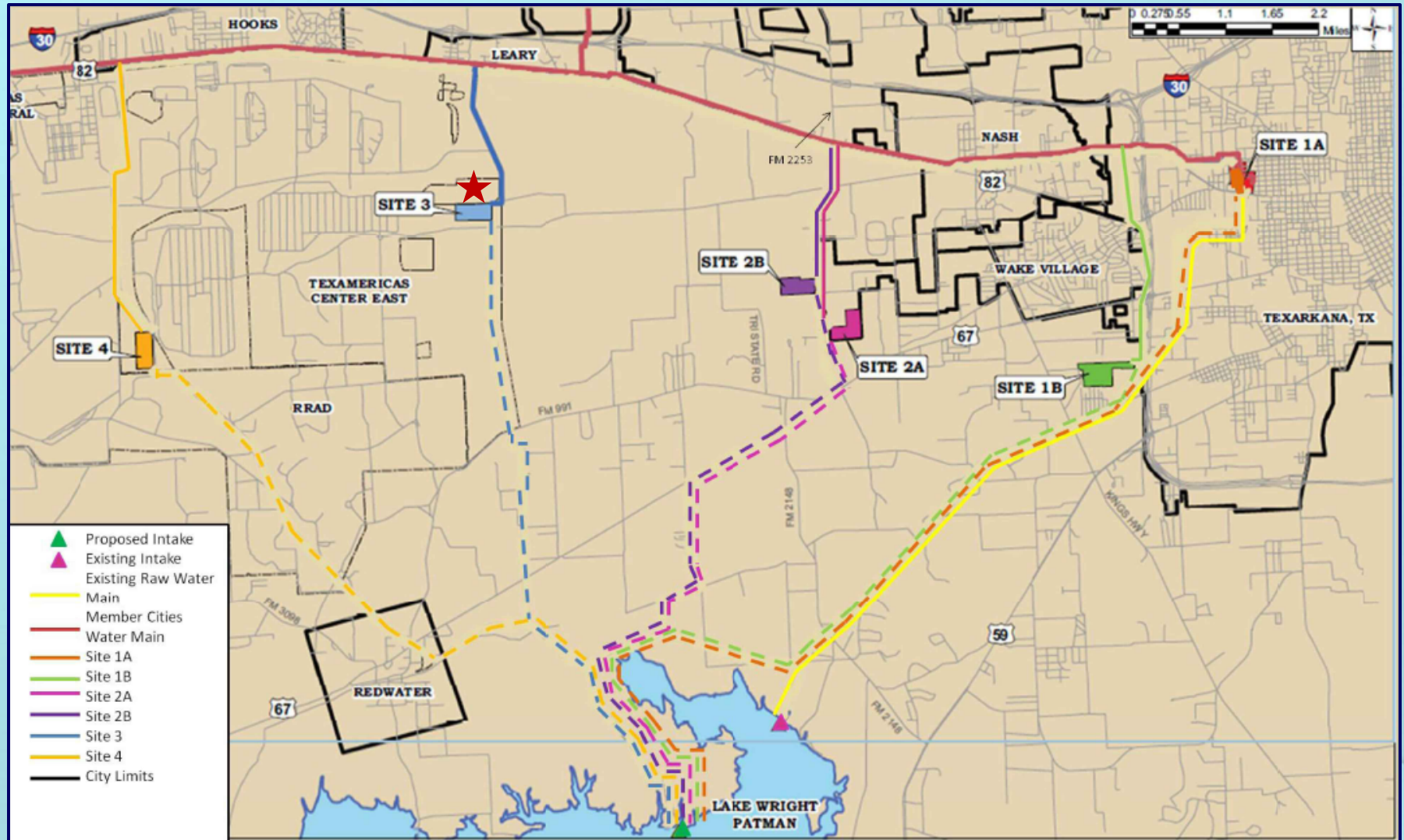


Raw Water Intakes



*Source: RWRD Phase 3 Report on Water Treatment Plant and Raw Water Intake Site Selection; CH2M HILL (August 29, 2012)

New Water Treatment Plant



*Source: RWRD Phase 3 Report on Water Treatment Plant and Raw Water Intake Site Selection; CH2M HILL (August 29, 2012)

Projected Regional Infrastructure Costs

- ❑ Ultimate Rule Curve*
 - \$14-\$18M Cultural Resources
 - \$6-\$28M Water Storage Fees
- ❑ New Intake and Raw Water Line
 - \$15M CH2MHill 2012 Study
 - ~\$50M Regional Water Master Study
- ❑ New Water Treatment Plants
 - ~\$150M-\$200M
- ❑ Operational Costs

**Portion of costs to be covered by Industrial Users per Contracts with City of Texarkana, TX.*

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Water Rates

❑ Water Rates Study

- Creation of an affordable roadmap for our region to pursue.

❑ TML Survey on Water and Waste Water Rates Across TX

2016	Water	Waste	Reported 2017
	687	661	
5,000 gal	\$37.13	\$29.03	7,583 gal avg.
% Increase Over 2015	2.51% (\$36.22)	7.92% (\$26.90)	

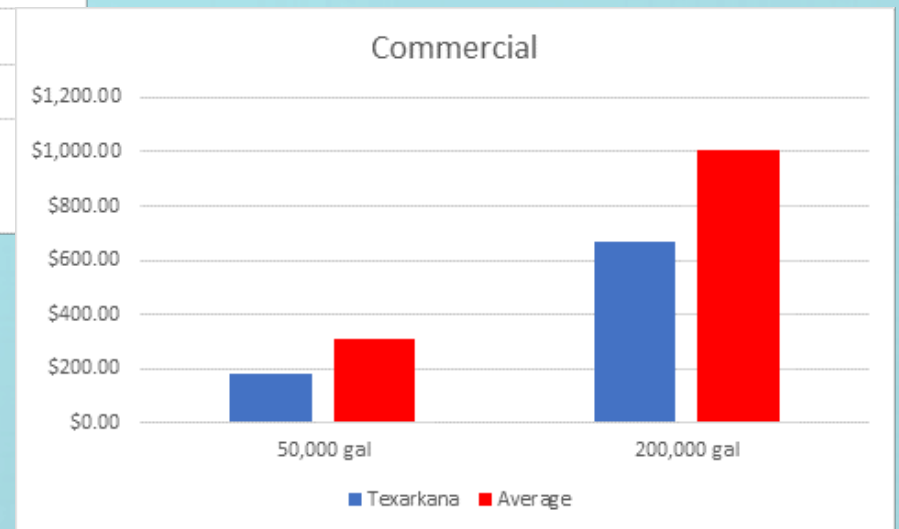
2017	Water	Water	Reported 2018
	638	615	
5,000 gal	\$38.38	\$29.19	5,961 gal avg.
% Increase Over 2016	3.37% (\$37.13)	0.55% (\$29.03)	

More information <https://www.tml.org/surveys#water>



Water Rates

◆ Water Rates Statewide Comparison



Projected Regional Water Rates

- ❑ Today's Actual Cost to Produce Water
 - \$4.5M Operational Costs = \$.89/1,000 gal
- ❑ Estimates on Covering
 - \$48M Infrastructure Costs = ~\$.51/1,000 gal
 - \$2.8M Operational Costs = ~\$.51/1,000 gal
- ❑ Other Considerations When Thinking About Rates
 - Fixed Income Individuals
 - Conservation Modeling
 - One-time Increases vs. Incremental Phasing Over Time

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Q&A Discussion



For More Information

Riverbend Water Resources District

2017-2018 Board of Directors

Marshall Wood, President

Fred Milton, Vice President

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Sean Rommel, Secretary

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Executive Director/CEO

Elizabeth Fazio Hale

(903) 831-0091

lizfazio@rwrld.org

