



March 29, 2023

Allen W. Fair WUG Representative Crystal Systems Texas PO Box 1084 Tyler, TX 75710-1084

Subject: East Texas Regional Water Planning Area

Population, Municipal Water Demand, and Water Source Projections

Dear Mr. Fair:

The Water User Group (WUG) Crystal Systems Texas is located within the water planning region known as the East Texas Regional Water Planning Area (ETRWPA), otherwise known as Region I. The East Texas Regional Water Planning Group (ETRWPG) is in the process of updating the regional water plan for the ETRWPA to be adopted in 2026. For information about the ETRWPG or to see the schedule of upcoming meetings, please visit www.etexwaterplan.org.

We are seeking your input on data necessary to prepare the plan and comply with Legislative requirements. The first step in developing a regional water plan is confirming that **population and demand projections** reflect your future. The Texas Water Development Board (TWDB) has developed two sets of draft projections for the population and annual municipal water demands for your WUG, based on the Texas Demographic Center (TDC) 0.5 migration and 1.0 migration scenarios. More on these projections can be found online on the TWDB website, located here: https://www.twdb.texas.gov/waterplanning/data/projections/2027/municipal.asp.

For your consideration, please review the following tables on Page 4, which summarize population (Table 1) and municipal water demand projections (Table 2) for Crystal Systems Texas. These tables are derived from the TWDB draft projections referenced above.

In addition to the population and demand projections, we are asking you to confirm your water supply sources for the 2026 East Texas Water Plan or reply with any updates. A list of sources from the most recently adopted 2021 East Texas Water Plan can be found in Table 3.

As you review the population and demand projections, please keep in mind the following:

- **Population** is for your <u>RETAIL</u> service area only, which may differ from your city limits (for cities) or other political boundaries.
- **Demands** are intended to represent drought year (dry year) conditions and are in acre-feet per year. *Note: 1 million gallons/day (MGD) is equivalent to 1,120 acre-feet per year.*
- The projections do not include your wholesale customers' population or demand.
- The projections do not include the demand for any major industrial/manufacturing customers. Those are included in a separate demand category by county. Please contact us if you are interested in reviewing the manufacturing/industrial demand projects.



• The TWDB has placed restrictions on changes to the regional population. We may not be able to satisfy all the revision requests submitted by water suppliers, but we will do our best to incorporate your requested changes.

Information we would like to receive your feedback on include:

- Do the population projections in Table 1 accurately reflect for your WUG?
- Do you believe the water use (GPCD) projections in Table 2 to be reasonable?
- Do you agree with the municipal water demand projections in Table 2?
- Which projection scenario (0.5 or 1.0 migration) is more representative of your WUG?
- Do your current water sources match with the sources in Table 3?
- Have there been any changes to the status of your planned water management strategies?
 If you had a strategy recommended in the 2021 Plan that was projected to be online in 2020 and included capital costs, we will follow up to see if that strategy has been implemented.
- For applicable entities, do you have water conservation plans or drought contingency plans developed or updated since January 2020? Please note that plan updates for applicable entities are due May 1, 2024, to the TWDB and the Texas Commission on Environmental Quality (TCEQ). Please let your consultant team representative know if you have any questions about preparing water conservation plans or drought contingency plans.

If you agree with the information provided, please reply to the email below stating your agreement. If you do not agree, please reply to the email below by explaining what data needs revisions and providing your suggested projections or corrected data. If available, please include any supporting information for your changes. Supporting information can include evidence regarding population growth rates over the last 5 years, maps of changed service areas, historical residential connections from 2000 to present, or other data.

Please provide your responses and proposed updates no later than April 14, 2023. The ETRWPG will be considering compiled regional projections at its June 2023 meeting. If we do not hear otherwise from you, the draft projections and water source information will be accepted for purposes of the regional water plan update to be adopted in 2026.

Your ETRWPG consultant team representative is:

Brigit Buff, P.E. bbuff@plummer.com Phone: (972) 996-5681 Plummer Associates, Inc. 14755 Preston Road, Suite 420 Dallas, TX 75254

The ETRWPG will provide ongoing updates of the regional water planning process in this cycle. In the meantime, if you have any comments or questions, please send them to your ETRWPG consultant team representative. Thank you for taking time to review this information.



Yours very truly,

John Martin

John Martin, Chair East Texas Regional Water Planning Group

Enclosure: Projection Criteria for Adjustment and Data Requirements

cc: Ms. Cheryl Bartlett, Administrative Contact, City of Nacogdoches

Ms. Brigit Buff, Plummer, Inc.

Mr. Jordan Skipwith, Freese and Nichols, Inc.



Table 1 - Crystal Systems Texas Population by Decade

TDC Projection Scenario	2030	2040	2050	2060	2070	2080
0.5 Migration Scenario	4,861	5,002	5,086	5,121	5,157	5,194
1.0 Migration Scenario	4,990	5,264	5,457	5,579	5,703	5,828

Table 2 – Crystal Systems Texas Water Demand Projections by Decade

	Baseline						
Projection Type	GPCD	2030	2040	2050	2060	2070	2080
Water Use (GPCD) ¹	280	267.92	263.48	262.28	261.85	261.61	261.39
Demand – 0.5 Migration Scenario (af/yr) ²		1,458	1,476	1,494	1,502	1,511	1,521
Demand – 1.0 Migration Scenario (af/yr) ²		1,498	1,554	1,603	1,636	1,671	1,706

¹ Water use values have been calculated from draft TWDB population and water demand projections. These values are intended to represent water use during a dry (high use) year and account for accumulated plumbing code savings. Please refer to the "2026 Regional Water Plan DRAFT Population and Municipal Demand Projections" portal on the TWDB website for more information.

Table 3 –2021 Regional Water Plan Water Sources for Crystal Systems Texas

Water Supply Source(s)	
Self-supplied from Carrizo-Wilcox Aquifer	

² Water demand projections are measured in acre-feet per year (af/yr). The projections do not include your wholesale customers' population or demand. The projections also do not include the demand for any major industrial/manufacturing.