Region I
East Texas Regional
Water Planning Group

John Martin, Chair
P.O. Box 1407
Jasper TX 75951
409-383-1577

March 23, 2023

Honorable Milton Powers
Tyler County Judge
100 W Bluff, RM 102
Woodville, TX 75979

Re: East Texas Regional Water Planning Area
Draft Tyler County Water Demand Projections

Dear Judge Powers:

Tyler County is located within the East Texas Regional Water Planning Area (ETRWPA, or Region I), and the next Region I water plan update is currently underway.

Water supply planning has been a part of Region I for over 25 years now. The planning process requires a comprehensive evaluation of available water supplies, water demands, and development of strategies to meet identified needs. This is a public process that works best with public involvement from across the region. The East Texas Regional Water Planning Group (ETRWPG) meets regularly to discuss the next Region I water plan to be adopted in 2026. For information about the planning process, ETRWPG, or the next meeting, visit www.etexwaterplan.org.

The **Texas Water Development Board** (TWDB) has developed two sets of draft projections for the population and annual municipal water demands in your county, based on the Texas Demographic Center (TDC) 0.5 migration and 1.0 migration scenarios, which can be found online at https://www.twdb.texas.gov/waterplanning/data/projections/2027/municipal.asp. Please review the information at the above link and/or in the enclosed Fact Sheet and identify which projection scenario (0.5 or 1.0 migration) is more representative of your county.

The TWDB has released water demand projections for this cycle of regional water planning for the following non-municipal water use categories: **Irrigation**, **Livestock**, **Manufacturing**, **Mining**; and **Steam-Electric Power** for your county where applicable. Available projections can be viewed in the enclosed fact sheets or online at the following address: http://www.twdb.texas.gov/waterplanning/data/projections/2027/projections.asp.

For your review and consideration, enclosed are the draft projection fact sheets for Tyler County and Region I. If you do not agree with the draft projections, or would like more information about them, we want to hear from you. The TWDB has developed specific criteria for revisions to projections. Enclosed is an excerpt from the TWDB with guidance governing projection revisions. If the county or any water user group within the region desires to request a revision to the

projections, please forward any comments and supporting data to the consultant team representative Brigit Buff of Plummer at (972) 996-5681 or bbuff@plummer.com.

The ETRWPG will be considering comments to these projections at its **April 19, 2023** meeting in Nacogdoches. Please provide any comments by April 10th. If we do not hear otherwise from you, the draft projections provided herein will be accepted by the ETRWPG for purposes of the regional water plan update. Thank you for taking time to review this information, and please let us know if you would prefer to receive future correspondence digitally via email.

Yours very truly,

John Martin

John Martin, Chair
East Texas Regional Water Planning Group

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Enclosures: Tyler County Regional Water Planning Fact Sheet
Region I Non-Municipal Regional Water Planning Fact Sheets
Projection Criteria for Adjustment and Data Requirements

cc: Ms. Cheryl Bartlett, City of Nacogdoches

ENCLOSURE 1

East Texas Regional Water Planning Area (Region I)
Draft Population and Water Demand Projections for Tyler County
0.5 Migration Scenario

	WUG Name	DECADE OF PLAN					
		2030	2040	2050	2060	2070	2080
POPULATION PROJECTION	POPULATION SERVED BY WUGS	12,330	12,171	12,082	12,098	12,163	12,304
	COUNTY-OTHER, TYLER	6,478	5,523	4,575	3,763	2,910	1,989
	TOTAL COUNTY POPULATION	18,808	17,694	16,657	15,861	15,073	14,293
MUNICIPAL WATER DEMAND (ACRE-FEET PER YEAR)	CHESTER WSC	96	82	69	60	50	40
	COLMESNEIL	156	147	141	137	134	131
	CYPRESS CREEK WSC	97	83	73	65	58	53
	MOSCOW WSC	3	3	4	5	6	7
	SENECA WSC	102	93	87	84	80	77
	TYLER COUNTY SUD	324	299	284	276	268	262
	WARREN WSC	255	245	243	242	242	242
	WILDWOOD POA	72	64	58	54	49	44
	WOODVILLE	843	860	901	950	1,007	1,076
	COUNTY-OTHER, TYLER	730	591	485	398	308	211
	TOTAL MUNICPAL WATER DEMAND	2,678	2,467	2,345	2,271	2,202	2,143
NON MUNICIPAL WATER DEMAND (ACRE-FEET PER YEAR)	MANUFACTURING	118	122	127	132	137	142
	MINING	42	42	42	42	42	42
	STEAM-ELECTRIC	3	3	3	3	3	3
	LIVESTOCK	253	253	253	253	253	253
	IRRIGATION	270	270	270	270	270	270
TOTAL COUNTY WATER DEMAND (ACRE-FEET PER YEAR)		3,364	3,157	3,040	2,971	2,907	2,853

East Texas Regional Water Planning Area (Region I)
Draft Population and Water Demand Projections for Tyler County
1.0 Migration Scenario

	WUG Name	DECADE OF PLAN					
		2030	2040	2050	2060	2070	2080
POPULATION PROJECTION	POPULATION SERVED BY WUGS	12,152	11,697	11,276	10,949	10,632	10,330
	COUNTY-OTHER, TYLER	6,364	5,263	4,206	3,334	2,469	1,606
	TOTAL COUNTY POPULATION	18,516	16,960	15,482	14,283	13,101	11,936
MUNICIPAL WATER DEMAND (ACRE-FEET PER YEAR)	CHESTER WSC	94	78	63	53	42	32
	COLMESNEIL	154	140	130	122	114	106
	CYPRESS CREEK WSC	95	79	67	58	50	42
	MOSCOW WSC	3	3	4	5	5	5
	SENECA WSC	100	88	80	74	68	62
	TYLER COUNTY SUD	319	285	261	244	227	211
	WARREN WSC	255	245	243	242	242	242
	WILDWOOD POA	71	61	53	47	42	36
	WOODVILLE	828	820	829	841	855	868
	COUNTY-OTHER, TYLER	718	563	446	353	261	170
	TOTAL MUNICPAL WATER DEMAND	2,637	2,362	2,176	2,039	1,906	1,774
NON MUNICIPAL WATER DEMAND (ACRE-FEET PER YEAR)	MANUFACTURING	118	122	127	132	137	142
	MINING	42	42	42	42	42	42
	STEAM-ELECTRIC	3	3	3	3	3	3
	LIVESTOCK	253	253	253	253	253	253
	IRRIGATION	270	270	270	270	270	270
TOTAL COUNTY WATER DEMAND (ACRE-FEET PER YEAR)		3,323	3,052	2,871	2,739	2,611	2,484

ENCLOSURE 2

Table 1. Comparison of Region I Manufacturing Demand Projections by County

County Name	2021 Regional Water Plan Projections (ac-ft/yr)						Draft 2026 Regional Water Plan Projections (ac-ft/yr)					
	2020	2030	2040	2050	2060	2070	2030	2040	2050	2060	2070	2080
Anderson	0	0	0	0	0	0	1,686	1,748	1,813	1,880	1,950	2,022
Angelina	3,658	3,878	3,878	3,878	3,878	3,878	5,518	5,722	5,934	6,154	6,382	6,618
Cherokee	115	129	129	129	129	129	82	85	88	91	94	97
Hardin	40	45	45	45	45	45	64	66	68	71	74	77
Henderson	806	985	985	985	985	985	1,269	1,316	1,365	1,416	1,468	1,522
Houston	169	232	232	232	232	232	201	208	216	224	232	241
Jasper	45,973	57,364	57,364	57,364	57,364	57,364	57,668	59,802	62,015	64,310	66,689	69,156
Jefferson	202,902	233,902	233,902	233,902	233,902	233,902	150,970	156,556	162,349	168,356	174,585	181,045
Nacogdoches	2,508	2,529	2,529	2,529	2,529	2,529	2,892	2,999	3,110	3,225	3,344	3,468
Newton	52	56	56	56	56	56	2	2	2	2	2	2
Orange	44,335	48,193	48,193	48,193	48,193	48,193	47,365	49,118	50,935	52,820	54,774	56,801
Panola	852	1,272	1,272	1,272	1,272	1,272	1,298	1,346	1,396	1,448	1,502	1,558
Polk	438	471	471	471	471	471	399	414	429	445	461	478
Rusk	32	34	34	34	34	34	26	27	28	29	30	31
Sabine	246	265	265	265	265	265	449	466	483	501	520	539
San Augustine	6	6	6	6	6	6	4	4	4	4	4	4
Shelby	1,696	1,696	1,696	1,696	1,696	1,696	1,860	1,929	2,000	2,074	2,151	2,231
Smith	2,960	3,353	3,353	3,353	3,353	3,353	2,850	2,955	3,064	3,177	3,295	3,429
Trinity	0	0	0	0	0	0	0	0	0	0	0	0
Tyler	0	0	0	0	0	0	118	122	127	132	137	142
Regional Total	**306,788**	**354,410**	**354,410**	**354,410**	**354,410**	**354,410**	**273,445**	**283,562**	**294,054**	**304,936**	**316,219**	**327,920**

Table 2. Comparison of Region I Steam Electric Power Demand Projections by County

County Name	2021 Regional Water Plan Projections (ac-ft/yr)						Draft 2026 Regional Water Plan Projections (ac-ft/yr)					
	2020	2030	2040	2050	2060	2070	2030	2040	2050	2060	2070	2080
Anderson	1,408	1,408	1,408	1,408	1,408	1,408	2,296	2,296	2,296	2,296	2,296	2,296
Angelina	3,520	3,520	3,520	3,520	3,520	3,520	0	0	0	0	0	0
Cherokee	3,211	3,211	3,211	3,211	3,211	3,211	310	310	310	310	310	310
Hardin	1	1	1	1	1	1	1	1	1	1	1	1
Henderson	3,709	3,709	3,709	3,709	3,709	3,709	2,131	2,131	2,131	2,131	2,131	2,131
Houston	0	0	0	0	0	0	0	0	0	0	0	0
Jasper	0	0	0	0	0	0	0	0	0	0	0	0
Jefferson	3,291	3,291	3,291	3,291	3,291	3,291	0	0	0	0	0	0
Nacogdoches	0	0	0	0	0	0	400	400	400	400	400	400
Newton	5,778	5,778	5,778	5,778	5,778	5,778	6,808	6,808	6,808	6,808	6,808	6,808
Orange	4,298	4,298	4,298	4,298	4,298	4,298	4,336	4,336	4,336	4,336	4,336	4,336
Panola	0	0	0	0	0	0	0	0	0	0	0	0
Polk	0	0	0	0	0	0	0	0	0	0	0	0
Rusk	45,304	45,304	45,304	45,304	45,304	45,304	19,406	19,406	19,406	19,406	19,406	19,406
Sabine	0	0	0	0	0	0	0	0	0	0	0	0
San Augustine	0	0	0	0	0	0	0	0	0	0	0	0
Shelby	0	0	0	0	0	0	0	0	0	0	0	0
Smith	0	0	0	0	0	0	0	0	0	0	0	0
Trinity	0	0	0	0	0	0	0	0	0	0	0	0
Tyler	200	200	200	200	200	200	3	3	3	3	3	3
Regional Total	**70,720**	**70,720**	**70,720**	**70,720**	**70,720**	**70,720**	**35,621**	**35,621**	**35,621**	**35,621**	**35,621**	**35,621**

Table 3. Comparison of Region I Mining Demand Projections by County

County Name	2021 Regional Water Plan Projections (ac-ft/yr)						Draft 2026 Regional Water Plan Projections (ac-ft/yr)					
	2020	2030	2040	2050	2060	2070	2030	2040	2050	2060	2070	2080
Anderson	140	177	185	147	105	75	34	34	34	34	34	34
Angelina	486	585	410	312	237	180	780	819	855	887	915	940
Cherokee	295	304	267	204	141	97	187	187	187	187	187	187
Hardin	12	12	12	12	12	12	13	13	13	13	13	13
Henderson	511	592	558	543	519	497	188	198	210	241	277	322
Houston	322	254	187	119	51	22	302	302	302	302	302	302
Jasper	148	118	88	58	28	14	28	28	28	28	28	28
Jefferson	194	216	244	294	329	368	294	312	332	354	379	406
Nacogdoches	7,000	4,500	1,643	1,299	958	707	891	891	891	891	891	891
Newton	429	373	279	209	146	107	3	3	3	3	3	3
Orange	309	314	313	314	319	327	11	11	11	11	11	11
Panola	5,916	5,859	5,049	4,268	3,620	3,938	2,280	2,280	2,280	2,280	2,280	2,280
Polk	247	195	144	92	41	18	52	54	56	58	60	60
Rusk	2,990	4,007	3,870	3,724	3,601	3,592	489	489	489	489	489	489
Sabine	1,500	1,365	1,203	1,046	888	776	203	203	203	203	203	203
San Augustine	4,000	3,000	1,479	1,180	884	662	1,411	1,411	1,411	1,411	1,411	1,411
Shelby	3,283	2,938	2,496	1,980	1,467	1,087	2,070	2,070	2,070	2,070	2,070	2,070
Smith	421	448	481	503	518	555	427	446	466	487	510	534
Trinity	10	10	10	10	10	10	18	18	18	18	18	18
Tyler	160	198	150	103	55	29	42	42	42	42	42	42
Regional Total	**28,373**	**25,465**	**19,068**	**16,417**	**13,929**	**13,073**	**9,673**	**9,759**	**9,847**	**9,952**	**10,062**	**10,179**

Table 4.Comparison of Region I Irrigation Demand Projections by County

County Name	2021 Regional Water Plan Projections (ac-ft/yr)						Draft 2026 Regional Water Plan Projections (ac-ft/yr)					
	2020	2030	2040	2050	2060	2070	2030	2040	2050	2060	2070	2080
Anderson	657	657	657	657	657	657	905	905	905	905	905	905
Angelina	779	779	779	779	779	779	147	147	147	147	147	147
Cherokee	451	451	451	451	451	451	399	399	399	399	399	399
Hardin	989	989	989	989	989	989	180	180	180	180	180	180
Henderson	885	885	885	885	885	885	1,202	1,202	1,202	1,202	1,202	1,202
Houston	2,137	2,137	2,137	2,137	2,137	2,137	1,531	1,531	1,531	1,531	1,531	1,531
Jasper	151	151	151	151	151	151	303	303	303	303	303	303
Jefferson	88,536	88,536	88,536	88,536	88,536	88,536	51,621	51,621	51,621	51,621	51,621	51,621
Nacogdoches	266	266	266	266	266	266	97	97	97	97	97	97
Newton	101	101	101	101	101	101	42	42	42	42	42	42
Orange	1,824	1,824	1,824	1,824	1,824	1,824	864	864	864	864	864	864
Panola	574	574	574	574	574	574	1,069	1,069	1,069	1,069	1,069	1,069
Polk	562	562	562	562	562	562	179	179	179	179	179	179
Rusk	276	276	276	276	276	276	173	173	173	173	173	173
Sabine	0	0	0	0	0	0	0	0	0	0	0	0
San Augustine	4	4	4	4	4	4	0	0	0	0	0	0
Shelby	10	10	10	10	10	10	7	7	7	7	7	7
Smith	772	772	772	772	772	772	712	712	712	712	712	712
Trinity	553	553	553	553	553	553	136	136	136	136	136	136
Tyler	354	354	354	354	354	354	270	270	270	270	270	270
Regional Total	**99,881**	**99,881**	**99,881**	**99,881**	**99,881**	**99,881**	**58,629**	**58,629**	**58,629**	**58,629**	**58,629**	**58,629**

Table 5. Comparison of Region I Livestock Demand Projections by County

County Name	2021 Regional Water Plan Projections (ac-ft/yr)						Draft 2026 Regional Water Plan Projections (ac-ft/yr)					
	2020	2030	2040	2050	2060	2070	2030	2040	2050	2060	2070	2080
Anderson	1,026	1,026	1,026	1,026	1,026	1,026	1,252	1,252	1,252	1,252	1,252	1,252
Angelina	1,028	1,028	1,028	1,028	1,028	1,028	659	659	659	659	659	659
Cherokee	1,874	1,874	1,874	1,874	1,874	1,874	1,153	1,153	1,153	1,153	1,153	1,153
Hardin	198	198	198	198	198	198	178	178	178	178	178	178
Henderson	2,267	2,267	2,267	2,267	2,267	2,267	3,560	3,560	3,560	3,560	3,560	3,560
Houston	1,564	1,707	1,860	2,027	2,208	2,439	1,595	1,738	1,894	2,063	2,279	2,279
Jasper	10,000	10,000	10,000	10,000	10,000	10,000	489	489	489	489	489	489
Jefferson	837	837	837	837	837	837	713	713	713	713	713	713
Nacogdoches	9,693	10,122	10,619	11,195	11,854	12,836	2,491	2,613	2,755	2,917	3,159	3,159
Newton	168	168	168	168	168	168	98	98	98	98	98	98
Orange	255	255	255	255	255	255	186	186	186	186	186	186
Panola	2,652	2,652	2,652	2,652	2,652	2,652	1,069	1,069	1,069	1,069	1,069	1,069
Polk	355	355	355	355	355	355	273	273	273	273	273	273
Rusk	1,660	1,683	1,714	1,745	1,777	1,777	1,239	1,262	1,285	1,309	1,309	1,309
Sabine	129	176	231	294	363	363	263	345	439	542	542	542
San Augustine	2,004	2,219	2,465	2,751	3,066	3,066	519	577	644	718	718	718
Shelby	11,858	14,128	16,891	20,263	24,373	24,373	3,188	3,811	4,572	5,499	5,499	5,499
Smith	1,094	1,094	1,094	1,094	1,094	1,094	892	892	892	892	892	892
Trinity	403	403	403	403	403	403	336	336	336	336	336	336
Tyler	249	249	249	249	249	249	253	253	253	253	253	253
Regional Total	**49,314**	**52,441**	**56,186**	**60,681**	**66,047**	**67,260**	**18,965**	**20,016**	**21,259**	**22,718**	**23,176**	**23,176**

ENCLOSURE 3

7. Documentation of potential future growth, such as utility master plans, capital improvement plans, land use and zoning plans, maps of vacant lands with number of dwelling units per acre or number of households and average household size.
8. Other data and evidence that the RWPG believes provides a reasonable basis for justifying changes to an individual WUG-level population projection.

2.2.2 Water demand projections

2.2.2.1 Municipal water demand projections

Municipal water use includes both residential and non-residential water use. Residential use includes single and multi-family residential household water use. Non-residential use includes water used by commercial establishments, public offices, institutions, and light industrial facilities, but does not include significant industrial water users, such as large manufacturing, mining, or power generation facilities. Residential and non-residential water uses are categorized together because they are similar types of use, both use water primarily for drinking, cleaning, sanitation, cooling, and landscape watering.

Per capita water use is developed as gallons per capita daily (GPCD) using historical population estimates and net use for the utility. The reported data included in the municipal draft projections includes surface water, groundwater, and direct and indirect potable reuse, but does not include non-potable reuse sources.

The TWDB-generated draft municipal water demand projections must incorporate limited, anticipated future water savings **due <u>only</u> to the transition to more water-efficient plumbing fixtures and appliances, as detailed in relevant legislation and provided to the RWPGs by the TWDB**. Any additional anticipated future water savings due to conservation programs undertaken by utilities or county-other WUGs must be quantified and considered as a potential, recommended water management strategy by the RWPG.

Dry-year and baseline GPCD

Municipal water demand projections will be based upon dry-year demand conditions. The baseline GPCDs used in the 2026 RWPs will be carried over from the 2021 RWPs and used as default baseline GPCDs **with water efficiency savings due to more efficient plumbing fixtures and appliances through 2020 subtracted** to develop the draft water demand projections for municipal WUGs in the 2026 RWPs.

Regions may make a request to use a WUG's GPCD value from a different base dry-year within the most recent five years (2015-2019) as the basis for the demand projections of that WUG. The TWDB will consider an alternative base dry-year GPCD if the RWPG provides sufficient evidence that the alternative base dry-year GPCD is more representative of demands expected under dry-year conditions or that the draft default GPCD fails to adequately reflect water efficiency and conservation savings that have already been implemented.

Note that any adjustment to the population projections for a WUG will require an associated adjustment to the municipal water demand projections.

Criteria for adjustment:

One or more of the following criteria must be verified by the RWPG and the Executive Administrator for consideration of revising the municipal water demand projections:

1. Evidence that per capita water use from a more recent year (2015-2019) would be more appropriate as the baseline because that year was more representative of dry-year conditions.
2. Evidence of errors identified in the historical water use or GPCD for a utility or public water system, including evidence that volumes of reuse (potable reuse) water used for municipal purposes should be or should not be included in the draft projections.
3. Evidence that the base dry-year water use was abnormal due to temporary infrastructure constraints or water restriction triggered by utility's drought management plan.
4. Trends indicating that per capita water use for a utility or rural area of a county have increased substantially in recent years, and evidence that these trends will continue to rise in the short-term future due to commercial development.
5. Evidence that the most recent water efficiency and conservation savings that have already been implemented are not reflected in the default baseline GPCD.
6. Evidence that the number of installations of water-efficient fixtures and appliances between 2010 and 2020 is substantially different than the TWDB estimate or evidence that the projected replacement rate of water-efficient fixtures and appliances is substantially different than the TWDB projections.
7. Evidence that future water efficiency savings are projected much higher than the draft projections due to a utility's conservation plans that accelerate the replacement of the existing outdated plumbing fixtures and appliances.

Data requirements:

The RWPG must provide the following data to the Executive Administrator associated with the identified criteria for justifying any adjustments to the municipal water demand projections:

1. Annual municipal water intake (total surface water diversions and/or groundwater pumpage and water purchased from other entities) for a utility measured in acre-feet.
2. The volume of water sales by a utility to other water users (utilities, industries, public water systems, etc.) measured in acre-feet.
3. Net annual municipal water use, defined as total water production less sales to other water users (utilities, industries, public water systems, etc.) measured in acre-feet.
4. Documentation of temporary infrastructure, drought restrictions, or other water supply constraints that were in place.
5. Drought index or seasonal rainfall data to document a year different than the designated dry-year as a more appropriate base year for projections.
6. Conservation plans or other documentation that show the number or rate of water-efficient fixtures replaced or planned to be replaced for the future.
7. Estimated water efficiency or conservation savings implemented.

8. To verify increasing or decreasing per capita water use trends for a utility or rural area of a county and therefore revising projections of per capita water use to reflect the trend, the following data should be provided with the request from the RWPG:
    a. Historical per capita water use estimates based on net annual municipal water use for a utility or rural area of a county, beginning in 2015.
    b. A trend analysis which takes into account the variation in annual rainfall.
    c. Revised projections of per capita water use for a utility or rural area of a county, that demonstrate an increasing or decreasing trend of per capita water use.
    d. Growth data in the residential, commercial and/or public sectors that would justify an increase or decrease in per capita water use.
    e. Convincing documentation of planned future growth that would result in higher per capita water use.
9. Other data and evidence that the RWPG considers reasonable and adequate to justify an adjustment to the municipal water demand projections.

2.2.2.2 Manufacturing water demand projections

Manufacturing water use is defined as water used to produce manufactured goods. Manufacturing facilities report their water use to the TWDB annually through the Water Use Survey. Different manufacturing sectors are denoted by North American Industrial Classification System (NAICS) codes. The baseline for draft manufacturing water demand projections is based on the highest county-aggregated manufacturing water use in the most recent five years (2015-2019), plus estimated unaccounted water use. The most recent 10-year historical number of establishments from the U.S. Census Bureau County Business Pattern data or other relevant economic measures available are used as proxy for growth between 2030 and 2080.

Criteria for adjustment:

One or more of the following criteria must be verified by the RWPG and the Executive Administrator for consideration of revising the manufacturing water demand projections:

1. Evidence of a new or existing facility that has not been included in the TWDB's Water Use Survey.
2. Evidence of an industrial facility that has recently closed its operation in a county.
3. Plans for new construction, or expansion or closure of an existing industrial facility in a county at some future date.
4. Evidence of a long-term projected water demand of a facility or industry within a county that is substantially different than the draft projections.
5. Evidence of errors identified in historical water use, including volumes of reuse (treated effluent) or brackish groundwater that were not included in the draft projections.
6. Evidence that holding demands constant from 2040-2080 would better reflect future efficiencies and water use.

Data requirements:

The RWPG must provide the following data to the Executive Administrator associated with the identified criteria for justifying any adjustments to the manufacturing water demand projections.

1. Historical water use data and the 6-digit NAICS code of a manufacturing facility.
2. Documentation and analysis that justify that a new manufacturing facility not included in the Water Use Survey database will increase future manufacturing water demand for the county above the draft projections.
3. The 6-digit NAICS code of the industrial facility that has recently located in a county and annual water use volume.
4. Documentation of plans for a manufacturing facility to locate in a county at some future date, including the following data:
   a. The quantity of water required by the planned facility on an annual basis,
   b. The proposed construction schedule for the facility including the date the facility will become operational, and
   c. The 6-digit NAICS code for the planned facility.
5. Reports or research documents describing alternative trends or anticipated water use for manufacturing.
6. Specific information regarding incorrect location for a facility.
7. Other data and evidence that the RWPG considers reasonable and adequate to justify an adjustment to the manufacturing water demand projections.

2.2.2.3 Steam-electric power generation water demand projections

Water use for steam-electric power generation is consumptive use reported to the TWDB through the annual Water Use Survey. Steam-electric power water demand projections do not include water used in cogeneration facilities (included in manufacturing projections) or facilities which do not require water for production (wind, solar, dry-cooled generation), or hydro-electric generation facilities.

The baseline for draft water demand projections are based on the highest county-aggregated historical steam-electric power water use in the most recent five years (2015-2019). Subsequent demand projections after 2030 are held constant throughout the planning period. The anticipated water use of future facilities listed in state and federal reports is added to the demand projections from the anticipated operation date through 2080. The reported water use of power generation facilities scheduled for retirement in the state and federal reports is subtracted from the baseline or the decade in which they are projected to retire.

Criteria for adjustment:

One or more of the following criteria must be verified by the RWPG and the Executive Administrator for consideration of revising the power generation water demand projections:

1. Documentation that the draft projections have not included a facility that warrants inclusion.

2. Any local information related to new facilities or facility closures that may not have been included in U.S. Energy Information Administration report.
3. Evidence of a long-term projected water demand of a facility or a county that is substantially different than the draft projections.
4. Evidence of errors identified in historical water use, including volumes of reuse (treated effluent) water or brackish groundwater that were not included in the draft projections.
5. Evidence that a currently operating power generation facility has experienced a higher dry-year water use beyond the most recent five years, within the most recent 10 years.

Data requirements:

The RWPG must provide the following data to the Executive Administrator associated with the identified criteria for justifying any adjustments to the steam-electric water demand projections.

1. Historical water use data and description of a surveyed or future facility, including the fuel type, cooling process, capacity, average percent of time operating, and any other information necessary to estimate water use.
2. Reports or research documents describing alternative trends or anticipated water use for steam-electric power generation.
3. Documentation of an anticipated new facility not listed in state or federal reports necessary to estimate the volume of water reasonably expected to be consumed. Such information should include power generation method, cooling method, generation capacity and any additional information necessary to reasonably estimate the future water use.
4. Documentation regarding facility closures that may impact county projections.
5. Specific information regarding incorrect location for a facility.
6. Other data and evidence that the RWPG considers reasonable and adequate to justify an adjustment to the steam-electric power water demand projections.

2.2.2.4 Mining water demand projections

Mining water demand includes water used for oil and gas development, as well as extraction of coal and lignite, sand aggregate, and other resources. Projections do not include water use required for the transportation or refining of materials. The TWDB's annual mining water use estimates are comprised of data from both surveyed and non-surveyed entities and are based on the mining study conducted in partnership with the U.S. Geological Survey and the University of Texas Bureau of Economic Geology.

Criteria for adjustment:

One or more of the following criteria must be verified by the RWPG and the Executive Administrator for consideration of revising the mining water demand projections:

1. Evidence that mining water use in a county is substantially different than the draft projections. This could include trends in water use data from the FracFocus national online registry, the Texas Railroad Commission, or other sources.

2. Evidence of new facilities coming online or reported closures in surveyed facilities that may impact county projections.
3. Evidence of errors identified in historical water use, including volumes of reuse (treated effluent) water or brackish groundwater that were not included in the draft projections.
4. Evidence of a long-term projected water demand of a facility or industry within a county that is substantially different than the draft projections.

Data requirements:

The RWPG must provide the following data to the Executive Administrator associated with the identified criteria for justifying any adjustments to the mining water demand projections.

1. Historical water use data and description of a surveyed or future facility, and any other information necessary to estimate water use.
2. Reports describing alternative trends or anticipated water use for mining.
3. Documentation of an anticipated new mining facility or new mining activities.
4. Specific information regarding facility closures that may impact county projections.
5. Specific information regarding incorrect location for a facility.
6. Reports or research documents describing alternative trends or anticipated water use for mining.
7. Other data and evidence that the RWPG considers reasonable and adequate to justify an adjustment to the mining water demand projections.

2.2.2.5 Irrigation water demand projections

Irrigation water demand projections include the water necessary for irrigation activities, primarily field crops, but also include orchards, pasture, turf grass farms, vineyards, and self-supplied golf courses. Note that for the purposes of regional water planning, irrigation demands account for the amount of water pumped for irrigation, not the water needed or used by the crop or associated with dry-land farming.

The baseline methodology for draft irrigation water demand projections is the average of the most recent five-years (2015-2019) of water use estimates held constant between 2030 and 2080. In counties where the total groundwater availability over the planning period is projected to be less than the groundwater-portion of the baseline water demand projections, the draft irrigation water demand projections will begin to decline starting in 2040, or a later decade, commensurate with the decline in the associated groundwater availability.

Criteria for adjustment:

One or more of the following criteria must be verified by the RWPG and the Executive Administrator for consideration of revising the irrigation water demand projections:

1. Evidence that irrigation water use estimates for a county from another information source or more recent modeled available groundwater (MAG) volumes are more accurate than those used in the draft projections.

2. Evidence that recent (10 years or less) irrigation trends are more indicative of future trends than the draft water demand projections.
3. Evidence that the baseline irrigation demand projection is more likely to reflect the future irrigation demand than the groundwater resource-constrained water demand projection (especially where economically feasible water supply strategies have been identified).
4. Region or county-specific studies that have developed water demand projections or trends for the planning period, or part of the planning period, and are deemed to be more reasonable estimates than the TWDB-generated draft projections.
5. Evidence of errors identified in historical water use, including volumes of reuse (treated effluent) or brackish groundwater that were not included in the draft projections.

Data requirements:

The RWPG must provide the following data to the Executive Administrator associated with the identified criteria for justifying any adjustments to the irrigation water demand projections:

1. Historical water use, diversion, or pumpage volumes for irrigation by county.
2. Acreage and water use data for irrigated crops grown in a region as published by the Texas Agricultural Statistics Service, the Texas Agricultural Extension Service, the Farm Service Agency or other sources.
3. Available economic, technical, and/or water supply-related evidence that may provide a basis for adjustments in the default baseline projection and/or the future rate of change in irrigation water demand.
4. Alternative projected water availability volumes that may constrain water demand projections.
5. Updated MAG volumes.
6. Other data and evidence that the RWPG considers reasonable and adequate to justify an adjustment to the irrigation water demand projections.

2.2.2.6 Livestock water demand projections

Livestock water use is defined as water used in the production of livestock, both for consumption and for cleaning and cooling purposes and aquaculture operations. The TWDB produces annual water use estimates for livestock, based on daily water demand per head assumptions for cattle (beef and dairy), hogs, poultry, horses, sheep, and goats. Additional facilities, such as aquaculture operations, report water use estimates through the TWDB Water Use Survey.

Draft water demand projections for each county are based on the average of the most recent five-years (2015-2019) of water use estimates. The rate of change for 2020-2070 from the 2022 State Water Plan will be applied to the new baseline.

Criteria for adjustment:

One or more of the following criteria must be verified by the RWPG and the Executive Administrator for consideration of revising the livestock water demand projections:

1. Evidence that livestock water use estimates for a county from another source are more accurate than those used in the draft projections.
2. Plans for the construction, expansion, or closure of a confined livestock feeding operation in a county at some future date.
3. Other evidence of change in livestock inventory or water requirements that would justify an adjustment in the projected future rate of change in livestock water demand.
4. Evidence of errors identified in historical water use, including volumes of reuse (treated effluent) or brackish groundwater that were not included in the draft projections.

Data requirements:

The RWPG must provide the following data to the Executive Administrator associated with the identified criteria for justifying any adjustments to the livestock water demand projections:

1. Documentation of plans for the construction of a confined livestock feeding facility in a county at some future date and includes the following:
    a. Confirmation of land purchase or lease arrangements for the facility.
    b. The construction schedule including the date the livestock feeding facility will become operational.
    c. The daily water requirements of the planned livestock feeding facility.
2. Other evidence that would document an expected increase or decrease in the livestock inventory in the county, such as facility closures.
3. Documentation of an existing confined livestock feeding operation not captured in the draft projections.
4. Other data and evidence that the RWPG considers reasonable and adequate to justify an adjustment to the livestock water demand projections.

2.2.3 Major water provider demands

Planning groups will review aggregated water demand projections for MWPs provided by the TWDB. RWPGs must summarize and present the projected demands for MWPs by category of use and planning decade. The TWDB will provide retail water demand data if the MWP is a WUG, and contract demand data based on data entered by the planning group into DB27 if the MWP is a WWP.

2.2.4 Representation of county-other sub-water user groups in regional water plans

Subject to their own time and financial resource constraints and at the discretion of each RWPG, county-other WUGs may be sub-divided into sub-county-other water users and presented in the RWPs as such. However, for the development of the 2026 RWPs, **this discrete level of information will not be eligible to be entered into DB27 but may be presented in the plan in a manner of the RWPG choice**. Any such entity identified by the planning group will inherently represented in DB27 under the associated umbrella, county-other WUG. Therefore, any presentation of these entities in the RWPs will solely be based on information analyzed and presented in narrative or tabular form by the RWPG. The