LAVACA
Regional Water Planning Group

Region P Technical Memorandum for 2021 Regional Water Plan

Prepared for:
Texas Water Development Board

Prepared By:
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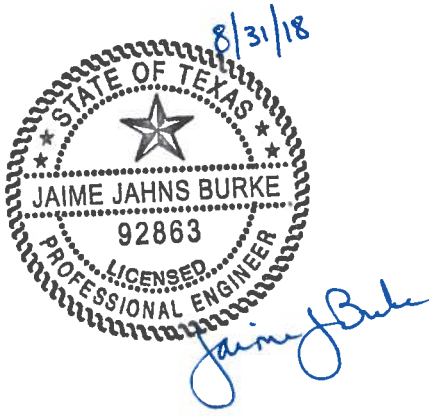

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Region P Technical Memorandum for 2021 Regional Water Plan

To	Texas Water Development Board Staff	Page	1
CC	Lavaca Regional Water Planning Group		
Subject	**Technical Memorandum**		
From	Jaime Burke, P.E.		
Date	August 6, 2018		

This Technical Memorandum is a compilation of the task work performed to date as part of the regional water planning process to develop the 2021 Lavaca Regional Water Plan for Region P. It is prepared for the Texas Water Development Board (TWDB) as a deliverable associated with Task 4C.

Attachment A of this Technical Memorandum includes the TWDB DB22 Database Reports that provide data on the following areas:

- Population Projections
- Water Demand Projections for all water use categories
- Summary of demands, supplies, and needs by water use category
- Water Sources and their availability volumes
- Existing Water Supplies for all Water User Groups
- Analysis of Water Needs and Surpluses
- Water Source Balance (Availability – Water User Group Supply)
- Comparison of Water User Group and Water Source data between the 2016 Regional Water Plan and the 2021 Regional Water Plan

The data provided in this Technical Memorandum is draft, and may be subject to change prior to final approval of the 2021 Lavaca Regional Water Plan.

This Technical Memorandum also includes a description of the methodologies used in the development of the data, information regarding model versions and dates, the documented process used by Region P to identify potentially feasible water management strategies, a list of potentially feasible water management strategies identified to date, and a statement regarding simplified planning.

1. Methodologies

a. Population Projections

This planning cycle, the TWDB changed the definition of a municipal Water User Group (WUG) to reflect water utility service areas, rather than political boundaries. In addition, the criteria for being identified as a municipal WUG was changed to include all public water utilites that provide more than 100 acre-feet of water per year for municipal use. There were also new definitions for privately owned utilities and Collective Reporting Units that did not impact Region P.

TWDB staff prepared draft population projections for 2020-2070 for all municipal WUGs using projection trends based on the population projections in the 2017 State Water Plan as reassembled by utility service areas.

Region P concurred with the TWDB draft population projections and did not request any revisions.

Population projections can be found in Attachment A.

b. Water Demand Projections

TWDB Draft Projections

The TWDB made several modifications to their methodologies used to develop the draft water demand projections for the 2021 Regional Water Plan as compared to the 2016 Regional Water Plan.

Municipal – *Municipal demands for existing Water User Groups (WUGs) utilize the base gallons per capita daily (GPCD) volumes from the 2017 State Water Plan. These GPCD numbers are based on political boundaries instead of utility service areas. For new WUGs, the 2011 or 2014 GPCD volumes that were based on data provided in the TWDB Water Use Surveys were used.*

Irrigation – *The 2020 projections are the average historical water from 2010 – 2014. The 2020-2070 projections are kept constant for Region P.*

Manufacturing – *The 2020 projections assume the highest water use volume from 2010-2014. The 2030 projections incorporate Texas Workforce Commission employee growth projections to increase the demand. The 2030-2070 projections are kept constant.*

Steam-Electric – *The 2020 projections assume the highest water use volume from 2010-2014, plus new planned facilities and minus scheduled retiring facilities. The 2020-2070 projections are kept constant.*

Livestock – *The 2020 projections assume the average water use from 2010-2014. The 2020-2070 projections are kept constant.*

The TWDB methodology for the mining demand projections and their totals by county did not change from the 2016 Regional Water Plan.

Region P Requested Revisions

Region P requested several revisions to the water demand projections, described below:

Municipal – *Region P requested to change the base municipal GPCD numbers to the utility boundary number where the utility boundary number does not match the city boundary. This impacts all municipal WUGs except El Campo. This change also impacts the municipal demand projections.*

Irrigation – *Region P requested to change irrigation demand projections in all counties to equal an average of the water use in the years 2011-2013, rather than 2010-2014.*

Manufacturing – *Region P requested to change manufacturing demand projections in Wharton and Jackson counties to incorporate potentially unaccounted for water use and local knowledge regarding anticipated water demands.*

Steam-electric – *Region P requested to change steam-electric demand projections in Wharton County to correct the location of one steam-electric facility to Region K.*

Livestock – *Region P requested to change livestock demand projections based on a water use rate of 30 GPCD for fed/other cattle, rather than 15 GPCD.*

All of the revisions requested by Region P were approved by TWDB and are represented in the water demand projections shown in the attached database reports in Attachment A.

c. Water Source Availability

For groundwater source availability, the Modeled Available Groundwater (MAG) volumes for the Gulf Coast Aquifer System are used. There are no non-MAG groundwater numbers included for groundwater source availabilities.

For surface water availability, the model currently being used to determine surface water availability volumes, including the firm yield of the Lake Texana Reservoir, is a modified version of the TCEQ Lavaca WAM Run 3 Model (version date 9/2/2014) known as the proposed Freese & Nichols Inc. Lavaca WAM Run 3 Model. The modified model was approved for use in evaluating existing water supply availabilities by the TWDB Executive Administrator on July 20, 2018. Projected sedimentation has been incorporated into the model runs for 2020-2070. The model runs were performed by AECOM on June 5, 2018. The volumes shown in the attached database reports reflect the results of this modified TCEQ WAM.

The modifications to the TCEQ Lavaca WAM Run 3 include the following:

1. Several changes to the existing code used to model SB3 pulse flow requirements in the Lavaca WAM.
2. Addition of missing SB3 pulse flow code for the Navidad River at Strane Park near Edna.
3. Revisions to Lake Texana SV SA records
    - These records are also updated for 2020-2070 sedimentation for regional water planning analysis, as required by TWDB guidelines.
4. Addition of a synthetic primary control point to correct a naturalized flow calculation.
5. Revisions to modeling of Lake Texana interruptible diversions
    - 3 authorizations split out rather than lumped under one diversion
    - Include annual diversion limit (simplifies the coding)

- Pattern change to allow more water to be diverted in the last three months of the year (if available)

6. Revisions to Stage 2 of the Palmetto Bend Project location and SV SA records to model it as described in COA 16-2095.

The impacts to the firm yield of Lake Texana are shown below:

WAM Model Version	2020 Firm Yield (AFY)	2070 Firm Yield (AFY)
Unmodified TCEQ Lavaca WAM Run 3	74,500	73,290
Proposed Freese & Nichols Inc. Modified Lavaca WAM Run 3	74,500	74,500

2. Documented Process for Identifying Potentially Feasible Water Management Strategies

Region P presented its process for identifying potentially feasible water management strategies for public comment at the April 16, 2018 Region P meeting.

The approved documented process is as follows:

1. Define groupings or common areas with supply deficiencies.
2. Develop a comprehensive list of potentially feasible strategies for each area.
3. Meet with potential suppliers/WUGs for each area to determine current strategies under consideration.
4. Prepare qualitative rating based on cost, reliability, environmental impact, and political acceptability for the various strategies.
5. Select one or more additional strategies for each area, if appropriate.
6. Present proposed shortlist at Public Meeting during Region P Planning Group meeting for modification and/or approval.

3. Tabular List of all Potentially Feasible Water Management Strategies Identified by Region P to Date

Region P has identified potentially feasible water management strategies for the 2021 Regional Water Plan by reviewing the water management strategies considered and recommended in the 2016 Regional Water Plan and by reaching out to Water User Groups and Wholesale Water Providers to ask for feedback on their anticipated strategy plans. Based on the work-to-date, a list has been tabulated in matrix form using a template provided by TWDB staff and is included as Attachment B to this Technical Memorandum.

4. Statement on Simplified Planning

The Lavaca Regional Water Planning Group (Region P) does not plan to pursue simplified planning for this planning cyle.

ATTACHMENT A

Region P Water User Group (WUG) Population

	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
COUNTY-OTHER	2,236	2,315	2,348	2,375	2,392	2,403
COLORADO-LAVACA BASIN TOTAL	**2,236**	**2,315**	**2,348**	**2,375**	**2,392**	**2,403**
EDNA	5,747	5,949	6,034	6,105	6,150	6,177
GANADO	2,080	2,153	2,184	2,209	2,224	2,236
COUNTY-OTHER	4,064	4,206	4,267	4,317	4,349	4,368
LAVACA BASIN TOTAL	**11,891**	**12,308**	**12,485**	**12,631**	**12,723**	**12,781**
COUNTY-OTHER	479	496	503	509	512	515
LAVACA-GUADALUPE BASIN TOTAL	**479**	**496**	**503**	**509**	**512**	**515**
JACKSON COUNTY TOTAL	**14,606**	**15,119**	**15,336**	**15,515**	**15,627**	**15,699**
COUNTY-OTHER	33	33	33	33	33	33
GUADALUPE BASIN TOTAL	**33**	**33**	**33**	**33**	**33**	**33**
HALLETTSVILLE	2,820	2,820	2,820	2,820	2,820	2,820
MOULTON	874	874	874	874	874	874
SHINER	2,054	2,054	2,054	2,054	2,054	2,054
YOAKUM	3,701	3,701	3,701	3,700	3,701	3,701
COUNTY-OTHER	9,776	9,776	9,776	9,777	9,776	9,776
LAVACA BASIN TOTAL	**19,225**	**19,225**	**19,225**	**19,225**	**19,225**	**19,225**
COUNTY-OTHER	5	5	5	5	5	5
LAVACA-GUADALUPE BASIN TOTAL	**5**	**5**	**5**	**5**	**5**	**5**
LAVACA COUNTY TOTAL	**19,263**	**19,263**	**19,263**	**19,263**	**19,263**	**19,263**
EL CAMPO	1,658	1,735	1,797	1,851	1,900	1,944
COUNTY-OTHER	175	197	214	230	244	256
COLORADO BASIN TOTAL	**1,833**	**1,932**	**2,011**	**2,081**	**2,144**	**2,200**
EL CAMPO	10,148	10,621	11,000	11,327	11,631	11,899
COUNTY-OTHER	750	844	919	984	1,044	1,098
COLORADO-LAVACA BASIN TOTAL	**10,898**	**11,465**	**11,919**	**12,311**	**12,675**	**12,997**
EL CAMPO	290	304	314	324	332	340
WHARTON COUNTY WCID 1	1,076	1,146	1,201	1,248	1,293	1,331
COUNTY-OTHER	2,523	2,839	3,093	3,311	3,512	3,692
LAVACA BASIN TOTAL	**3,889**	**4,289**	**4,608**	**4,883**	**5,137**	**5,363**
WHARTON COUNTY TOTAL	**16,620**	**17,686**	**18,538**	**19,275**	**19,956**	**20,560**
REGION P TOTAL POPULATION	**50,489**	**52,068**	**53,137**	**54,053**	**54,846**	**55,522**

Region P Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
COUNTY-OTHER	234	232	227	225	226	227
MANUFACTURING	10,549	10,627	10,627	10,627	10,627	10,627
MINING	10	10	8	6	4	3
LIVESTOCK	415	415	415	415	415	415
IRRIGATION	22,372	22,372	22,372	22,372	22,372	22,372
COLORADO-LAVACA BASIN TOTAL	**33,580**	**33,656**	**33,649**	**33,645**	**33,644**	**33,644**
EDNA	878	880	869	869	874	877
GANADO	237	236	232	231	231	233
COUNTY-OTHER	426	421	411	409	410	411
MANUFACTURING	146	147	147	147	147	147
MINING	39	41	31	22	14	10
LIVESTOCK	1,289	1,289	1,289	1,289	1,289	1,289
IRRIGATION	45,136	45,136	45,136	45,136	45,136	45,136
LAVACA BASIN TOTAL	**48,151**	**48,150**	**48,115**	**48,103**	**48,101**	**48,103**
COUNTY-OTHER	50	50	49	48	48	49
MANUFACTURING	229	231	231	231	231	231
MINING	21	22	16	12	8	6
LIVESTOCK	178	178	178	178	178	178
IRRIGATION	10,990	10,990	10,990	10,990	10,990	10,990
LAVACA-GUADALUPE BASIN TOTAL	**11,468**	**11,471**	**11,464**	**11,459**	**11,455**	**11,454**
JACKSON COUNTY TOTAL	**93,199**	**93,277**	**93,228**	**93,207**	**93,200**	**93,201**
COUNTY-OTHER	4	4	4	4	4	4
LIVESTOCK	37	37	37	37	37	37
GUADALUPE BASIN TOTAL	**41**	**41**	**41**	**41**	**41**	**41**
HALLETTSVILLE	641	628	617	611	610	610
MOULTON	179	175	171	170	169	169
SHINER	485	475	467	463	462	462
YOAKUM	658	641	627	619	618	618
COUNTY-OTHER	1,258	1,212	1,174	1,154	1,150	1,150
MANUFACTURING	563	625	625	625	625	625
MINING	2,544	1,860	1,416	977	537	297
LIVESTOCK	3,650	3,650	3,650	3,650	3,650	3,650
IRRIGATION	8,692	8,692	8,692	8,692	8,692	8,692
LAVACA BASIN TOTAL	**18,670**	**17,958**	**17,439**	**16,961**	**16,513**	**16,273**
COUNTY-OTHER	1	1	1	1	1	1
LIVESTOCK	76	76	76	76	76	76
LAVACA-GUADALUPE BASIN TOTAL	**77**	**77**	**77**	**77**	**77**	**77**
LAVACA COUNTY TOTAL	**18,788**	**18,076**	**17,557**	**17,079**	**16,631**	**16,391**
EL CAMPO	313	320	325	331	339	347
COUNTY-OTHER	23	25	26	28	30	31
COLORADO BASIN TOTAL	**336**	**345**	**351**	**359**	**369**	**378**
EL CAMPO	1,918	1,958	1,989	2,028	2,078	2,125
COUNTY-OTHER	99	107	113	121	128	134
MANUFACTURING	34	34	34	34	34	34
MINING	6	6	5	3	2	1
LIVESTOCK	184	184	184	184	184	184
IRRIGATION	4,858	4,858	4,858	4,858	4,858	4,858

Region P Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
COLORADO-LAVACA BASIN TOTAL	**7,099**	**7,147**	**7,183**	**7,228**	**7,284**	**7,336**
EL CAMPO	55	56	57	58	59	61
WHARTON COUNTY WCID 1	184	190	195	200	207	213
COUNTY-OTHER	333	359	381	406	429	452
MINING	12	13	9	7	5	3
STEAM ELECTRIC POWER	2,060	2,060	2,060	2,060	2,060	2,060
LIVESTOCK	650	650	650	650	650	650
IRRIGATION	83,588	83,588	83,588	83,588	83,588	83,588
LAVACA BASIN TOTAL	**86,882**	**86,916**	**86,940**	**86,969**	**86,998**	**87,027**
WHARTON COUNTY TOTAL	**94,317**	**94,408**	**94,474**	**94,556**	**94,651**	**94,741**
REGION P TOTAL DEMAND	**206,304**	**205,761**	**205,259**	**204,842**	**204,482**	**204,333**

Region P Water User Group (WUG) Category Summary*

MUNICIPAL	2020	2030	2040	2050	2060	2070
POPULATION	30,448	31,357	31,979	32,512	32,979	33,376
DEMAND (acre-feet per year)	5,548	5,559	5,549	5,580	5,647	5,715
EXISTING SUPPLIES (acre-feet per year)	5,826	5,826	5,826	5,826	5,826	5,826
NEEDS (acre-feet per year)	0	0	0	0	0	0

COUNTY-OTHER	2020	2030	2040	2050	2060	2070
POPULATION	20,041	20,711	21,158	21,541	21,867	22,146
DEMAND (acre-feet per year)	2,428	2,411	2,386	2,396	2,426	2,459
EXISTING SUPPLIES (acre-feet per year)	2,740	2,740	2,740	2,740	2,740	2,740
NEEDS (acre-feet per year)	0	0	0	0	0	0

MANUFACTURING	2020	2030	2040	2050	2060	2070
DEMAND (acre-feet per year)	11,521	11,664	11,664	11,664	11,664	11,664
EXISTING SUPPLIES (acre-feet per year)	7,568	7,568	7,568	7,568	7,568	7,568
NEEDS (acre-feet per year)	4,117	4,195	4,195	4,195	4,195	4,195

MINING	2020	2030	2040	2050	2060	2070
DEMAND (acre-feet per year)	2,632	1,952	1,485	1,027	570	320
EXISTING SUPPLIES (acre-feet per year)	2,637	2,637	2,637	2,637	2,637	2,637
NEEDS (acre-feet per year)	0	0	0	0	0	0

STEAM ELECTRIC POWER	2020	2030	2040	2050	2060	2070
DEMAND (acre-feet per year)	2,060	2,060	2,060	2,060	2,060	2,060
EXISTING SUPPLIES (acre-feet per year)	2,060	2,060	2,060	2,060	2,060	2,060
NEEDS (acre-feet per year)	0	0	0	0	0	0

LIVESTOCK	2020	2030	2040	2050	2060	2070
DEMAND (acre-feet per year)	6,479	6,479	6,479	6,479	6,479	6,479
EXISTING SUPPLIES (acre-feet per year)	6,479	6,479	6,479	6,479	6,479	6,479
NEEDS (acre-feet per year)	0	0	0	0	0	0

IRRIGATION	2020	2030	2040	2050	2060	2070
DEMAND (acre-feet per year)	175,636	175,636	175,636	175,636	175,636	175,636
EXISTING SUPPLIES (acre-feet per year)	171,574	171,574	171,574	171,574	171,574	171,574
NEEDS (acre-feet per year)	8,067	8,067	8,067	8,067	8,067	8,067

*WUG supplies and projected demands are entered for each of a WUG's region-county-basin divisions. The needs shown in the WUG Category Summary report are calculated by first deducting the WUG split's projected demand from its total existing water supply volume. If the WUG split has a greater existing supply volume than projected demand in any given decade, this amount is considered a surplus volume. Before aggregating the difference between supplies and demands to the WUG category level, calculated surpluses are updated to zero so that only the WUGs with needs in the decade are included with the Needs totals.

Region P Source Availability

GROUNDWATER SOURCE TYPE				SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY *	2020	2030	2040	2050	2060	2070
GULF COAST AQUIFER SYSTEM	JACKSON	COLORADO-LAVACA	FRESH	28,025	28,025	28,025	28,025	28,025	28,025
GULF COAST AQUIFER SYSTEM	JACKSON	LAVACA	FRESH/ BRACKISH	49,582	49,582	49,582	49,582	49,582	49,582
GULF COAST AQUIFER SYSTEM	JACKSON	LAVACA-GUADALUPE	FRESH	12,875	12,875	12,875	12,875	12,875	12,875
GULF COAST AQUIFER SYSTEM	LAVACA	GUADALUPE	FRESH	41	41	41	41	41	41
GULF COAST AQUIFER SYSTEM	LAVACA	LAVACA	FRESH	19,811	19,811	19,811	19,811	19,811	19,811
GULF COAST AQUIFER SYSTEM	LAVACA	LAVACA-GUADALUPE	FRESH	401	401	401	401	401	401
GULF COAST AQUIFER SYSTEM	WHARTON	COLORADO	FRESH	873	873	873	873	873	873
GULF COAST AQUIFER SYSTEM	WHARTON	COLORADO-LAVACA	FRESH	14,091	14,091	14,091	14,091	14,091	14,091
GULF COAST AQUIFER SYSTEM	WHARTON	LAVACA	FRESH	62,992	62,992	62,992	62,992	62,992	62,992
GROUNDWATER TOTAL SOURCE AVAILABILITY				**188,691**	**188,691**	**188,691**	**188,691**	**188,691**	**188,691**

SURFACE WATER SOURCE TYPE				SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY *	2020	2030	2040	2050	2060	2070
TEXANA LAKE/RESERVOIR	RESERVOIR	LAVACA	FRESH	74,500	74,500	74,500	74,500	74,500	74,500
SURFACE WATER TOTAL SOURCE AVAILABILITY				**74,500**	**74,500**	**74,500**	**74,500**	**74,500**	**74,500**

REGION P TOTAL SOURCE AVAILABILITY	**263,191**	**263,191**	**263,191**	**263,191**	**263,191**	**263,191**

*Salinity field indicates whether the source availability is considered 'fresh' (less than 1,000 mg/L), 'brackish' (1,000 to 10,000 mg/L), 'saline' (10,001 mg/L to 34,999 mg/L), or 'seawater' (35,000 mg/L or greater). Sources can also be labeled as 'fresh/brackish' or 'brackish/saline', if a combination of the salinity types is appropriate.

Region P Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
COUNTY-OTHER	P	GULF COAST AQUIFER SYSTEM | JACKSON COUNTY	234	234	234	234	234	234
MANUFACTURING	P	TEXANA LAKE/RESERVOIR	6,432	6,432	6,432	6,432	6,432	6,432
MINING	P	GULF COAST AQUIFER SYSTEM | JACKSON COUNTY	10	10	10	10	10	10
LIVESTOCK	P	GULF COAST AQUIFER SYSTEM | JACKSON COUNTY	415	415	415	415	415	415
IRRIGATION	P	GULF COAST AQUIFER SYSTEM | JACKSON COUNTY	22,372	22,372	22,372	22,372	22,372	22,372
		COLORADO-LAVACA BASIN TOTAL	**29,463**	**29,463**	**29,463**	**29,463**	**29,463**	**29,463**
EDNA	P	GULF COAST AQUIFER SYSTEM | JACKSON COUNTY	880	880	880	880	880	880
GANADO	P	GULF COAST AQUIFER SYSTEM | JACKSON COUNTY	237	237	237	237	237	237
COUNTY-OTHER	P	GULF COAST AQUIFER SYSTEM | JACKSON COUNTY	426	426	426	426	426	426
MANUFACTURING	P	GULF COAST AQUIFER SYSTEM | JACKSON COUNTY	147	147	147	147	147	147
MINING	P	GULF COAST AQUIFER SYSTEM | JACKSON COUNTY	41	41	41	41	41	41
LIVESTOCK	P	GULF COAST AQUIFER SYSTEM | JACKSON COUNTY	1,289	1,289	1,289	1,289	1,289	1,289
IRRIGATION	P	GULF COAST AQUIFER SYSTEM | JACKSON COUNTY	45,136	45,136	45,136	45,136	45,136	45,136
		LAVACA BASIN TOTAL	**48,156**	**48,156**	**48,156**	**48,156**	**48,156**	**48,156**
COUNTY-OTHER	P	GULF COAST AQUIFER SYSTEM | JACKSON COUNTY	50	50	50	50	50	50
MANUFACTURING	P	GULF COAST AQUIFER SYSTEM | JACKSON COUNTY	231	231	231	231	231	231
MINING	P	GULF COAST AQUIFER SYSTEM | JACKSON COUNTY	22	22	22	22	22	22
LIVESTOCK	P	GULF COAST AQUIFER SYSTEM | JACKSON COUNTY	178	178	178	178	178	178
IRRIGATION	P	GULF COAST AQUIFER SYSTEM | JACKSON COUNTY	10,990	10,990	10,990	10,990	10,990	10,990
		LAVACA-GUADALUPE BASIN TOTAL	**11,471**	**11,471**	**11,471**	**11,471**	**11,471**	**11,471**
		JACKSON COUNTY TOTAL	**89,090**	**89,090**	**89,090**	**89,090**	**89,090**	**89,090**
COUNTY-OTHER	P	GULF COAST AQUIFER SYSTEM | LAVACA COUNTY	4	4	4	4	4	4
LIVESTOCK	P	GULF COAST AQUIFER SYSTEM | LAVACA COUNTY	37	37	37	37	37	37
		GUADALUPE BASIN TOTAL	**41**	**41**	**41**	**41**	**41**	**41**
HALLETTSVILLE	P	GULF COAST AQUIFER SYSTEM | LAVACA COUNTY	641	641	641	641	641	641
MOULTON	P	GULF COAST AQUIFER SYSTEM | LAVACA COUNTY	179	179	179	179	179	179
SHINER	P	GULF COAST AQUIFER SYSTEM | LAVACA COUNTY	485	485	485	485	485	485
YOAKUM	P	GULF COAST AQUIFER SYSTEM | LAVACA COUNTY	658	658	658	658	658	658
COUNTY-OTHER	P	GULF COAST AQUIFER SYSTEM | LAVACA COUNTY	1,258	1,258	1,258	1,258	1,258	1,258
MANUFACTURING	P	GULF COAST AQUIFER SYSTEM | LAVACA COUNTY	625	625	625	625	625	625
MINING	P	GULF COAST AQUIFER SYSTEM | LAVACA COUNTY	2,544	2,544	2,544	2,544	2,544	2,544
LIVESTOCK	P	GULF COAST AQUIFER SYSTEM | LAVACA COUNTY	3,650	3,650	3,650	3,650	3,650	3,650
IRRIGATION	P	GULF COAST AQUIFER SYSTEM | LAVACA COUNTY	8,692	8,692	8,692	8,692	8,692	8,692
		LAVACA BASIN TOTAL	**18,732**	**18,732**	**18,732**	**18,732**	**18,732**	**18,732**
COUNTY-OTHER	P	GULF COAST AQUIFER SYSTEM | LAVACA COUNTY	1	1	1	1	1	1
LIVESTOCK	P	GULF COAST AQUIFER SYSTEM | LAVACA COUNTY	76	76	76	76	76	76
		LAVACA-GUADALUPE BASIN TOTAL	**77**	**77**	**77**	**77**	**77**	**77**
		LAVACA COUNTY TOTAL	**18,850**	**18,850**	**18,850**	**18,850**	**18,850**	**18,850**
EL CAMPO	P	GULF COAST AQUIFER SYSTEM | WHARTON COUNTY	347	347	347	347	347	347
COUNTY-OTHER	P	GULF COAST AQUIFER SYSTEM | WHARTON COUNTY	40	40	40	40	40	40
		COLORADO BASIN TOTAL	**387**	**387**	**387**	**387**	**387**	**387**
EL CAMPO	P	GULF COAST AQUIFER SYSTEM | WHARTON COUNTY	2,125	2,125	2,125	2,125	2,125	2,125
COUNTY-OTHER	P	GULF COAST AQUIFER SYSTEM | WHARTON COUNTY	192	192	192	192	192	192
MANUFACTURING	P	GULF COAST AQUIFER SYSTEM | WHARTON COUNTY	133	133	133	133	133	133
MINING	P	GULF COAST AQUIFER SYSTEM | WHARTON COUNTY	7	7	7	7	7	7
LIVESTOCK	P	GULF COAST AQUIFER SYSTEM | WHARTON COUNTY	184	184	184	184	184	184
IRRIGATION	P	GULF COAST AQUIFER SYSTEM | WHARTON COUNTY	8,863	8,863	8,863	8,863	8,863	8,863

Region P Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
		COLORADO-LAVACA BASIN TOTAL	**11,504**	**11,504**	**11,504**	**11,504**	**11,504**	**11,504**
EL CAMPO	P	GULF COAST AQUIFER SYSTEM | WHARTON COUNTY	61	61	61	61	61	61
WHARTON COUNTY WCID 1	P	GULF COAST AQUIFER SYSTEM | WHARTON COUNTY	213	213	213	213	213	213
COUNTY-OTHER	P	GULF COAST AQUIFER SYSTEM | WHARTON COUNTY	535	535	535	535	535	535
MINING	P	GULF COAST AQUIFER SYSTEM | WHARTON COUNTY	13	13	13	13	13	13
STEAM ELECTRIC POWER	K	BRAZOS-COLORADO RUN-OF-RIVER	0	0	0	0	0	0
STEAM ELECTRIC POWER	K	GULF COAST AQUIFER SYSTEM | WHARTON COUNTY	0	0	0	0	0	0
STEAM ELECTRIC POWER	P	GULF COAST AQUIFER SYSTEM | WHARTON COUNTY	2,060	2,060	2,060	2,060	2,060	2,060
LIVESTOCK	P	GULF COAST AQUIFER SYSTEM | WHARTON COUNTY	650	650	650	650	650	650
IRRIGATION	K	COLORADO RUN-OF-RIVER	16,000	16,000	16,000	16,000	16,000	16,000
IRRIGATION	P	GULF COAST AQUIFER SYSTEM | WHARTON COUNTY	59,521	59,521	59,521	59,521	59,521	59,521
		LAVACA BASIN TOTAL	**79,053**	**79,053**	**79,053**	**79,053**	**79,053**	**79,053**
		WHARTON COUNTY TOTAL	**90,944**	**90,944**	**90,944**	**90,944**	**90,944**	**90,944**
		REGION P TOTAL EXISTING WATER SUPPLY	**198,884**	**198,884**	**198,884**	**198,884**	**198,884**	**198,884**

Region P Water User Group (WUG) Needs/Surplus*

	(NEEDS)/SURPLUS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
JACKSON COUNTY - COLORADO-LAVACA BASIN						
COUNTY-OTHER	0	2	7	9	8	7
MANUFACTURING	(4,117)	(4,195)	(4,195)	(4,195)	(4,195)	(4,195)
MINING	0	0	2	4	6	7
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
JACKSON COUNTY - LAVACA BASIN						
EDNA	2	0	11	11	6	3
GANADO	0	1	5	6	6	4
COUNTY-OTHER	0	5	15	17	16	15
MANUFACTURING	1	0	0	0	0	0
MINING	2	0	10	19	27	31
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
JACKSON COUNTY - LAVACA-GUADALUPE BASIN						
COUNTY-OTHER	0	0	1	2	2	1
MANUFACTURING	2	0	0	0	0	0
MINING	1	0	6	10	14	16
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
LAVACA COUNTY - GUADALUPE BASIN						
COUNTY-OTHER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
LAVACA COUNTY - LAVACA BASIN						
HALLETTSVILLE	0	13	24	30	31	31
MOULTON	0	4	8	9	10	10
SHINER	0	10	18	22	23	23
YOAKUM	0	17	31	39	40	40
COUNTY-OTHER	0	46	84	104	108	108
MANUFACTURING	62	0	0	0	0	0
MINING	0	684	1,128	1,567	2,007	2,247
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
LAVACA COUNTY - LAVACA-GUADALUPE BASIN						
COUNTY-OTHER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
WHARTON COUNTY - COLORADO BASIN						
EL CAMPO	34	27	22	16	8	0
COUNTY-OTHER	17	15	14	12	10	9
WHARTON COUNTY - COLORADO-LAVACA BASIN						
EL CAMPO	207	167	136	97	47	0
COUNTY-OTHER	93	85	79	71	64	58
MANUFACTURING	99	99	99	99	99	99
MINING	1	1	2	4	5	6
LIVESTOCK	0	0	0	0	0	0

*WUG supplies and projected demands are entered for each of a WUG's region-county-basin divisions. The needs shown in the WUG Needs/Surplus report are calculated by first deducting the WUG split's projected demand from its total existing water supply volume. If the WUG split has a greater existing supply volume than projected demand in any given decade, this amount is considered a surplus volume. Surplus volumes are shown as positive values, and needs are shown as negative values in parentheses.

Region P Water User Group (WUG) Needs/Surplus*

IRRIGATION	4,005	4,005	4,005	4,005	4,005	4,005
WHARTON COUNTY - LAVACA BASIN						
EL CAMPO	6	5	4	3	2	0
WHARTON COUNTY WCID 1	29	23	18	13	6	0
COUNTY-OTHER	202	176	154	129	106	83
MINING	1	0	4	6	8	10
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(8,067)	(8,067)	(8,067)	(8,067)	(8,067)	(8,067)

*WUG supplies and projected demands are entered for each of a WUG's region-county-basin divisions. The needs shown in the WUG Needs/Surplus report are calculated by first deducting the WUG split's projected demand from its total existing water supply volume. If the WUG split has a greater existing supply volume than projected demand in any given decade, this amount is considered a surplus volume. Surplus volumes are shown as positive values, and needs are shown as negative values in parentheses.

Region P Source Water Balance (Availability - WUG Supply)

GROUNDWATER SOURCE TYPE				SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY*	2020	2030	2040	2050	2060	2070
GULF COAST AQUIFER SYSTEM	JACKSON	COLORADO-LAVACA	FRESH	4,994	4,994	4,994	4,994	4,994	4,994
GULF COAST AQUIFER SYSTEM	JACKSON	LAVACA	FRESH/ BRACKISH	1,426	1,426	1,426	1,426	1,426	1,426
GULF COAST AQUIFER SYSTEM	JACKSON	LAVACA-GUADALUPE	FRESH	1,404	1,404	1,404	1,404	1,404	1,404
GULF COAST AQUIFER SYSTEM	LAVACA	GUADALUPE	FRESH	0	0	0	0	0	0
GULF COAST AQUIFER SYSTEM	LAVACA	LAVACA	FRESH	1,079	1,079	1,079	1,079	1,079	1,079
GULF COAST AQUIFER SYSTEM	LAVACA	LAVACA-GUADALUPE	FRESH	324	324	324	324	324	324
GULF COAST AQUIFER SYSTEM	WHARTON	COLORADO	FRESH	833	833	833	833	833	833
GULF COAST AQUIFER SYSTEM	WHARTON	COLORADO-LAVACA	FRESH	2,116	2,116	2,116	2,116	2,116	2,116
GULF COAST AQUIFER SYSTEM	WHARTON	LAVACA	FRESH	0	0	0	0	0	0
GROUNDWATER TOTAL SOURCE WATER BALANCE				**12,176**	**12,176**	**12,176**	**12,176**	**12,176**	**12,176**

SURFACE WATER SOURCE TYPE				SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY*	2020	2030	2040	2050	2060	2070
TEXANA LAKE/RESERVOIR	RESERVOIR	LAVACA	FRESH	0	0	0	0	0	0
SURFACE WATER TOTAL SOURCE WATER BALANCE				**0**	**0**	**0**	**0**	**0**	**0**

REGION P TOTAL SOURCE WATER BALANCE	**12,176**	**12,176**	**12,176**	**12,176**	**12,176**	**12,176**

*Salinity field indicates whether the source availability is considered 'fresh' (less than 1,000 mg/L), 'brackish' (1,000 to 10,000 mg/L), 'saline' (10,001 mg/L to 34,999 mg/L), or 'seawater' (35,000 mg/L or greater). Sources can also be labeled as 'fresh/brackish' or 'brackish/saline', if a combination of the salinity types is appropriate.

Region P Source Data Comparison to 2016 Regional Water Plan (RWP)

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
JACKSON COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	76,386	90,482	18.5%	76,386	90,482	18.5%
LAVACA COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	20,385	20,253	-0.6%	20,373	20,253	-0.6%
RESERVOIR COUNTY						
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	74,500	74,500	0.0%	74,500	74,500	0.0%
WHARTON COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	99,753	77,956	-21.9%	99,753	77,956	-21.9%
REGION P						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	196,524	188,691	-4.0%	196,512	188,691	-4.0%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	74,500	74,500	0.0%	74,500	74,500	0.0%

Region P Water User Group (WUG) Data Comparison to 2016 Regional Water Plan (RWP)*

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
JACKSON COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	700	710	1.4%	700	710	1.4%
PROJECTED DEMAND TOTAL	700	710	1.4%	675	687	1.8%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
JACKSON COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	59,801	78,498	31.3%	59,801	78,498	31.3%
PROJECTED DEMAND TOTAL	59,801	78,498	31.3%	59,801	78,498	31.3%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
JACKSON COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,034	1,882	82.0%	1,034	1,882	82.0%
PROJECTED DEMAND TOTAL	1,034	1,882	82.0%	1,034	1,882	82.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
JACKSON COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,005	6,810	577.6%	1,005	6,810	577.6%
PROJECTED DEMAND TOTAL	670	10,924	1530.4%	820	11,005	1242.1%
WATER SUPPLY NEEDS TOTAL	0	4,117	100.0%	0	4,195	100.0%
JACKSON COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	73	73	0.0%	73	73	0.0%
PROJECTED DEMAND TOTAL	70	70	0.0%	19	19	0.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
JACKSON COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,157	1,117	-3.5%	1,157	1,117	-3.5%
PROJECTED DEMAND TOTAL	1,155	1,115	-3.5%	1,153	1,110	-3.7%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
LAVACA COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,241	1,263	1.8%	1,241	1,263	1.8%
PROJECTED DEMAND TOTAL	1,241	1,263	1.8%	1,130	1,155	2.2%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
LAVACA COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	8,357	8,692	4.0%	8,357	8,692	4.0%
PROJECTED DEMAND TOTAL	8,357	8,692	4.0%	8,357	8,692	4.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
LAVACA COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	2,043	3,763	84.2%	2,043	3,763	84.2%
PROJECTED DEMAND TOTAL	2,043	3,763	84.2%	2,043	3,763	84.2%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
LAVACA COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	705	625	-11.3%	705	625	-11.3%
PROJECTED DEMAND TOTAL	490	563	14.9%	705	625	-11.3%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
LAVACA COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	2,544	2,544	0.0%	2,544	2,544	0.0%
PROJECTED DEMAND TOTAL	2,544	2,544	0.0%	297	297	0.0%

*WUG supplies and projected demands are entered for each of a WUG's region-county-basin divisions. The needs shown in the WUG Data Comparison to 2016 RWP report are calculated by first deducting the WUG split's projected demand from its total existing water supply volume. If the WUG split has a greater existing supply volume than projected demand in any given decade, this amount is considered a surplus volume. Before aggregating the difference between supplies and demands to the WUG county and category level, calculated surpluses are updated to zero so that only the WUGs with needs in the decade are included with the Needs totals.

Region P Water User Group (WUG) Data Comparison to 2016 Regional Water Plan (RWP)*

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
LAVACA COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	2,029	1,963	-3.3%	2,029	1,963	-3.3%
PROJECTED DEMAND TOTAL	2,029	1,963	-3.3%	1,832	1,859	1.5%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
WHARTON COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	767	767	0.0%	767	767	0.0%
PROJECTED DEMAND TOTAL	588	455	-22.6%	767	617	-19.6%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
WHARTON COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	99,403	84,384	-15.1%	99,403	84,384	-15.1%
PROJECTED DEMAND TOTAL	149,688	88,446	-40.9%	149,688	88,446	-40.9%
WATER SUPPLY NEEDS TOTAL	50,285	8,067	-84.0%	50,285	8,067	-84.0%
WHARTON COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	789	834	5.7%	789	834	5.7%
PROJECTED DEMAND TOTAL	789	834	5.7%	789	834	5.7%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
WHARTON COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	133	133	0.0%	133	133	0.0%
PROJECTED DEMAND TOTAL	95	34	-64.2%	133	34	-74.4%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
WHARTON COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	19	20	5.3%	19	20	5.3%
PROJECTED DEMAND TOTAL	18	18	0.0%	4	4	0.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
WHARTON COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	2,531	2,746	8.5%	2,531	2,746	8.5%
PROJECTED DEMAND TOTAL	2,284	2,470	8.1%	2,531	2,746	8.5%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
WHARTON COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	0	2,060	100.0%	0	2,060	100.0%
PROJECTED DEMAND TOTAL	0	2,060	100.0%	0	2,060	100.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
REGION P						
EXISTING WUG SUPPLY TOTAL	184,331	198,884	7.9%	184,331	198,884	7.9%
PROJECTED DEMAND TOTAL	233,596	206,304	-11.7%	231,778	204,333	-11.8%
WATER SUPPLY NEEDS TOTAL	50,285	12,184	-75.8%	50,285	12,262	-75.6%

*WUG supplies and projected demands are entered for each of a WUG's region-county-basin divisions. The needs shown in the WUG Data Comparison to 2016 RWP report are calculated by first deducting the WUG split's projected demand from its total existing water supply volume. If the WUG split has a greater existing supply volume than projected demand in any given decade, this amount is considered a surplus volume. Before aggregating the difference between supplies and demands to the WUG county and category level, calculated surpluses are updated to zero so that only the WUGs with needs in the decade are included with the Needs totals.

ATTACHMENT B

		WMSs REQUIRED TO BE CONSIDERED BY STATUTE											**ADDITIONAL**									
Water User Group Name	Maximum Need 2020-2070 (af/yr)	**Conservation**	**Drought Management**	**Reuse**	Management of Existing Supplies	**Development of large-scale marine seawater or brackish groundwater**	Conjunctive Use	**Acquisition of available existing supplies**	**Development of new supplies**	Development of regional water supply or regional management of water supply facilities	Voluntary transfer of water (incl. regional water banks, sales, leases, options, subordination agreements, and financing agreements)	Emergency transfer of water under Section 11.139	**System optimization, reallocation of reservoir storage to new uses, contracts, water marketing, enhancement of yield, improvement of water quality**	New SW supply	New GW supply	Brush control; precipitation enhancement	Interbasin transfers of surface water	**Aquifer storage and recovery**	Cancellation of water rights	Rainwater harvesting	**Brackish Surface Water Desalination**	other
Edna		nPF	PF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF
El Campo		PF	PF	PF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF
Ganado		nPF	PF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF
Hallettsville		PF	PF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF
Moulton		PF	PF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF
Shiner		PF	PF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF
Wharton County WCID 1		PF	PF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF
Yoakum		PF	PF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF
Irrigation, Wharton County		PF	PF	nPF	nPF	nPF	nPF	PF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF
Manufacturing, Jackson County		PF	PF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF	nPF
Lavaca-Navidad River Authority		nPF	nPF	nPF	nPF	PF	nPF	nPF	PF	nPF	nPF	nPF	PF	nPF	nPF	nPF	nPF	PF	nPF	nPF	PF	nPF

nPF = considered but determined 'not potentially feasible' (may include WMSs that were initially identified as potentially feasible)
PF = considered 'potentially feasible' and therefore evaluated
(all WMS evaluations shall be presented in the regional water plan including for WMSs considered potentially feasible but not recommended)