

## ANGELINA COUNTY

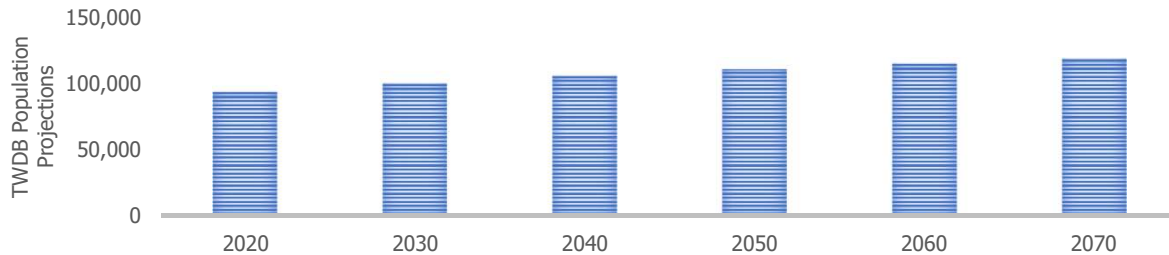
### YOUR WATER DEPENDENT ECONOMY:

Agriculture  
Industry  
Recreation  
Timber

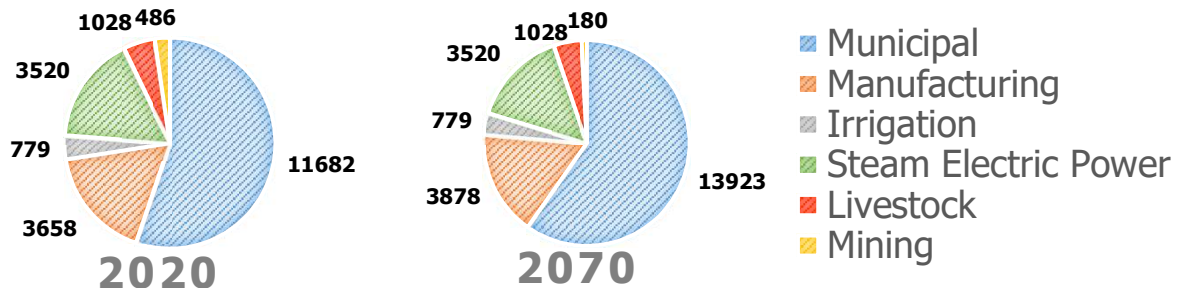
### YOUR WATER SOURCE(S):

Groundwater Wells  
Lake Kurth  
Local Supplies  
Neches River  
Yegua-Jackson Aquifer  
Carrizo-Wilcox Aquifer  
Queen City Aquifer  
Sparta Aquifer

### YOUR COUNTY POPULATION PROJECTIONS



### YOUR COUNTY WATER USE (ACRE-FEET)



### YOUR AVAILABLE WATER SUPPLY



### YOUR WATER USER GROUPS WITH IDENTIFIED NEEDS

Municipal	No Water Shortage Identified
Manufacturing	Water Shortage Identified, WMS - Purchase Additional Supply from Lufkin / New Wells (Yegua Jackson)
Irrigation	No Water Shortage Identified
Steam Electric Power	No Water Shortage Identified
Livestock	No Water Shortage Identified
Mining	Water Shortage Identified, WMS - Purchase Additional Supply from ANRA

## HENDERSON COUNTY

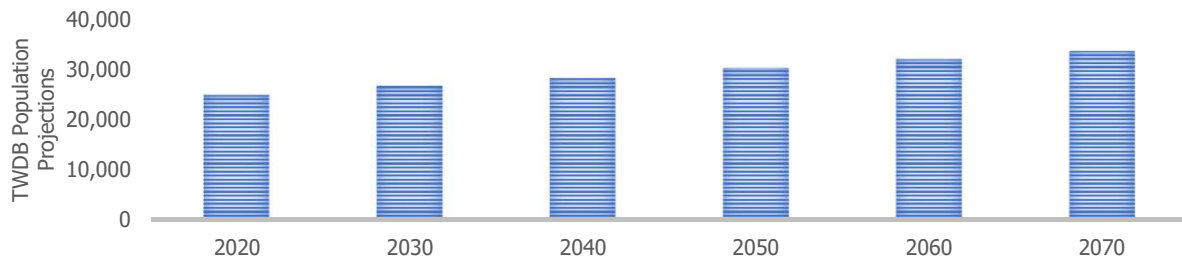
### YOUR WATER DEPENDENT ECONOMY:

Livestock  
Oil & Gas Production  
Recreation

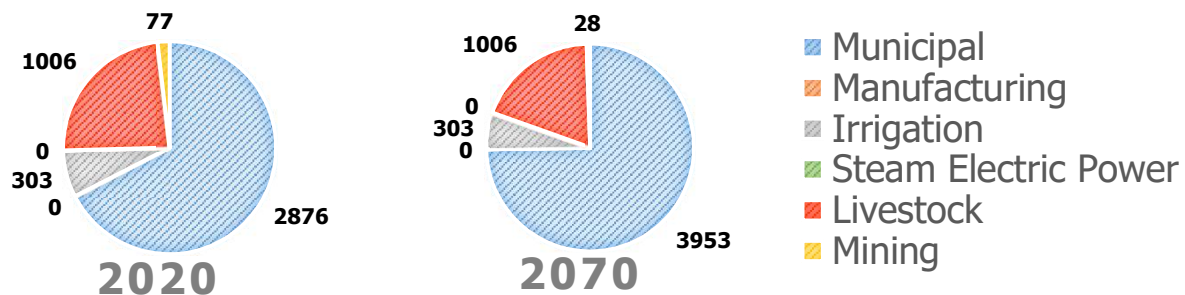
### YOUR WATER SOURCE(S):

Groundwater Wells Carrizo-Wilcox Aquifer  
Lake Athens Queen City Aquifer  
Local Supplies

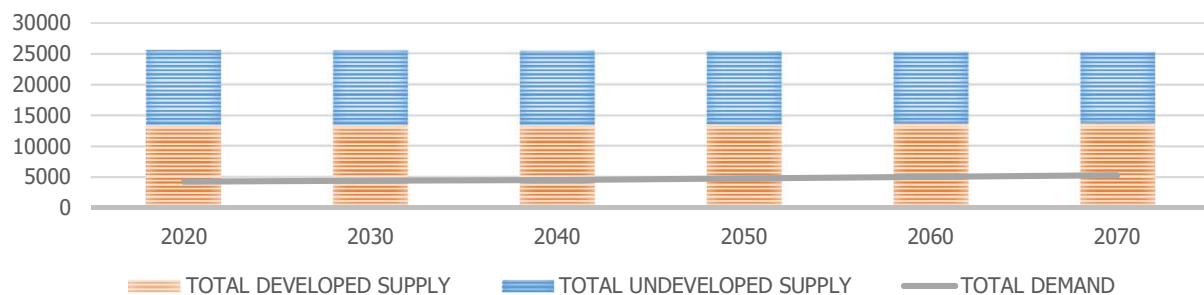
### YOUR COUNTY POPULATION PROJECTIONS



### YOUR COUNTY WATER USE (ACRE-FEET)



### YOUR AVAILABLE WATER SUPPLY



### YOUR WATER USER GROUPS WITH IDENTIFIED NEEDS

Chandler	WMS - Municipal Conservation, Purchase Additional Supply from Tyler
Moore Station WSC	WMS - Municipal Conservation, Purchase Additional Supply from Tyler
Manufacturing	No Water Shortage Identified
Irrigation	No Water Shortage Identified
Steam Electric Power	No Demand Projected
Livestock	No Water Shortage Identified
Mining	No Demand Projected - Additional Wells in Carrizo-Wilcox Aquifer

## NACOGDOCHES COUNTY

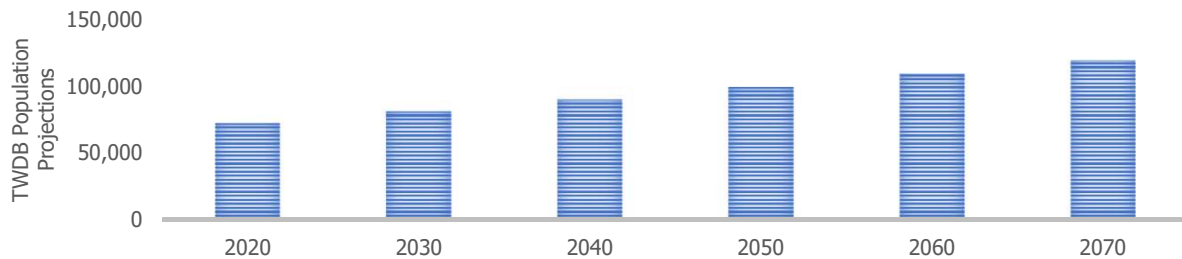
### YOUR WATER DEPENDENT ECONOMY:

Agriculture  
Education  
Livestock  
Timber

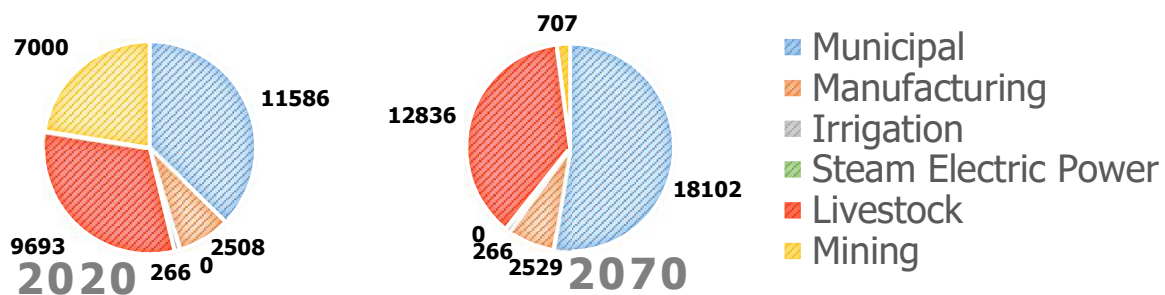
### YOUR WATER SOURCE(S):

Groundwater Wells Carrizo-Wilcox Aquifer  
Lake Nacogdoches Queen City Aquifer  
Local Supplies Sparta Aquifer  
Neches River Yegua-Jackson Aquifer

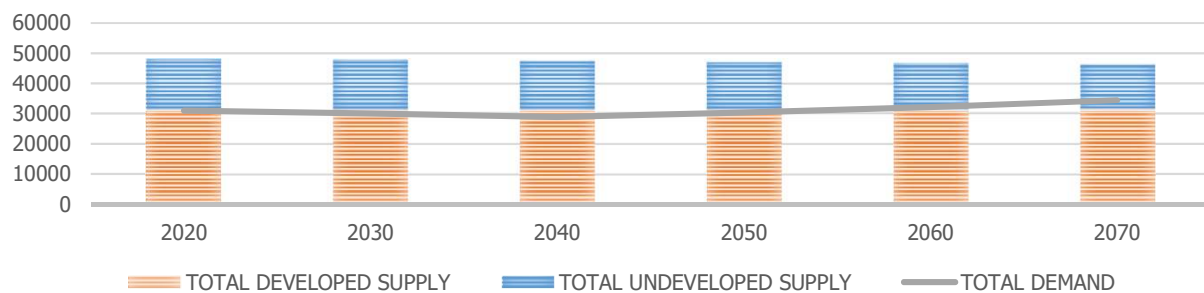
### YOUR COUNTY POPULATION PROJECTIONS



### YOUR COUNTY WATER USE (ACRE-FEET)



### YOUR AVAILABLE WATER SUPPLY



### YOUR WATER USER GROUPS WITH IDENTIFIED NEEDS

Cushing	Water Shortage Identified, WMS - Additional Wells in Carrizo Aquifer
D&M WSC	WMS - Additional Wells in Carrizo Aquifer
Manufacturing	No Water Shortage Identified
Irrigation	No Water Shortage Identified
Steam Electric Power	No Demand Projected
Livestock	Water Shortage Identified, WMS - Additional Wells in Carrizo Aquifer
Mining	Water Shortage Identified, WMS - Purchase Additional Supply from ANRA

## ORANGE COUNTY

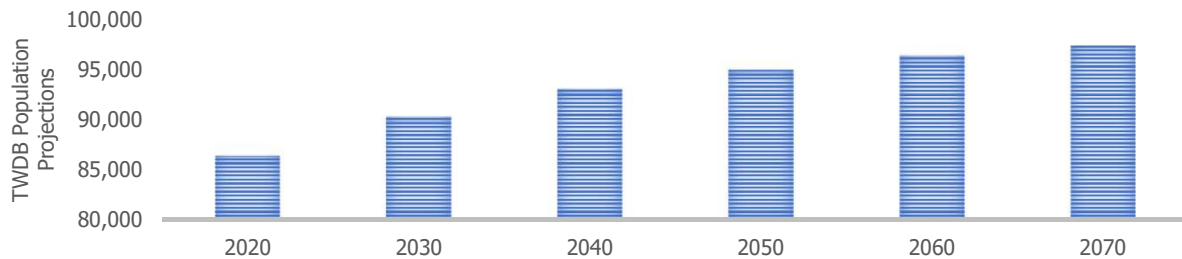
### YOUR WATER DEPENDENT ECONOMY:

Industry  
Recreation  
Timber

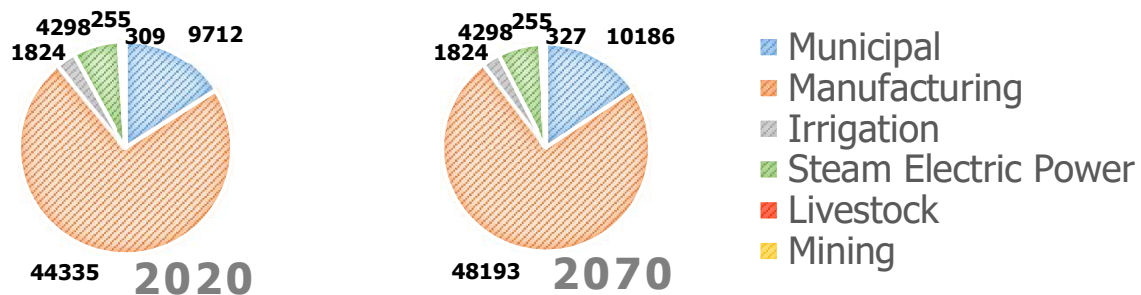
### YOUR WATER SOURCE(S):

Direct Reuse  
Groundwater Wells  
Local Supplies  
Neches River  
Sabine River  
Gulf Coast Aquifer

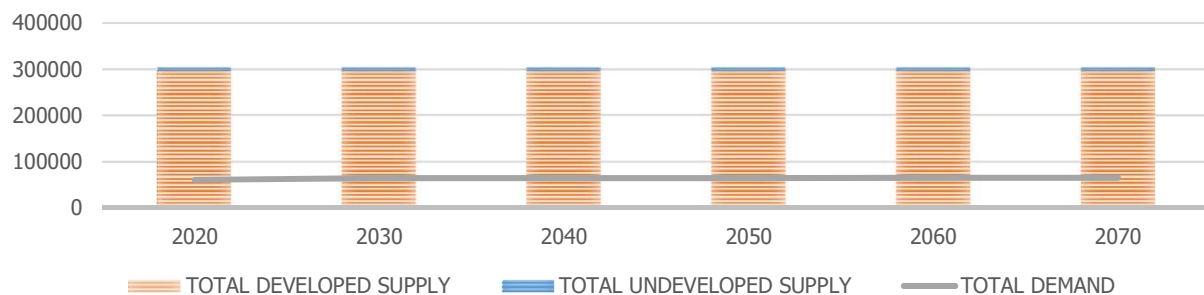
### YOUR COUNTY POPULATION PROJECTIONS



### YOUR COUNTY WATER USE (ACRE-FEET)



### YOUR AVAILABLE WATER SUPPLY



### YOUR WATER USER GROUPS WITH IDENTIFIED NEEDS

Manufacturing	No Water Shortage Identified
Irrigation	Water Shortage Identified, WMS - Purchase Additional Supply from SRA
Steam Electric Power	No Water Shortage Identified
Livestock	No Water Shortage Identified
Mining	No Water Shortage Identified

## RUSK COUNTY

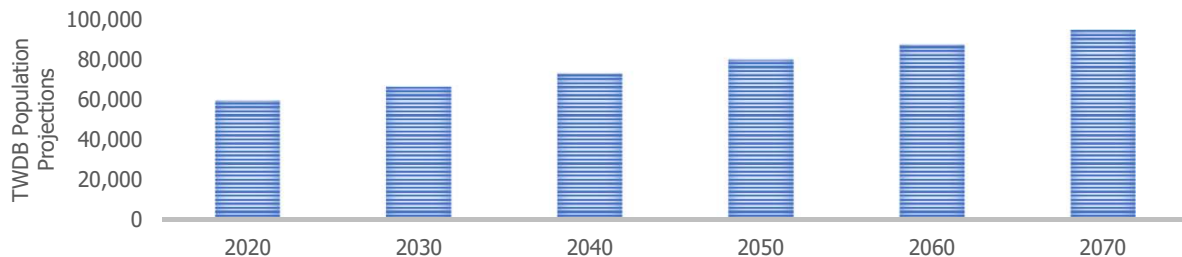
### YOUR WATER DEPENDENT ECONOMY:

Agriculture  
Livestock  
Oil & Gas Production

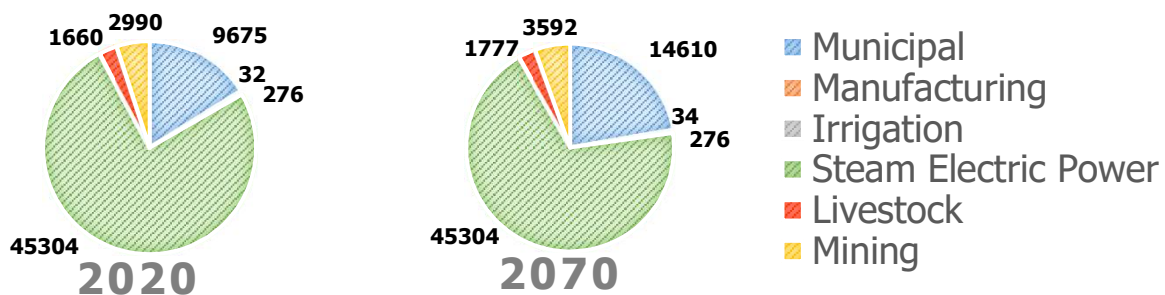
### YOUR WATER SOURCE(S):

Groundwater Wells  
Lake Striker  
Martin Lake  
Neches River  
Sabine River  
Local Supplies  
Carrizo-Wilcox Aquifer  
Queen City Aquifer

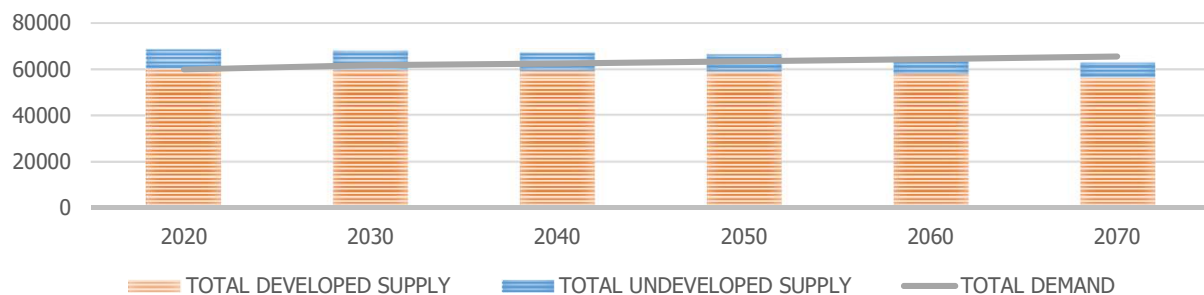
### YOUR COUNTY POPULATION PROJECTIONS



### YOUR COUNTY WATER USE (ACRE-FEET)



### YOUR AVAILABLE WATER SUPPLY



### YOUR WATER USER GROUPS WITH IDENTIFIED NEEDS

Jacobs WSC	WMS - Additional Wells in Carrizo-Wilcox Aquifer
Wright City WSC	WMS - Additional Wells in Carrizo-Wilcox Aquifer
Manufacturing	No Water Shortage Identified
Irrigation	No Water Shortage Identified
Steam Electric Power	Water Shortage Identified, WMS - Purchase Additional Supply from SRA
Livestock	Water Shortage Identified, WMS - Additional Wells in Carrizo-Wilcox Aquifer
Mining	Water Shortage Identified, WMS - Purchase Additional Supply from ANRA

Table 5B.1 2021 Needs, Recommended, and Alternative Water Management Strategies for Water User Groups									
NEEDS	RECOMMENDED STRATEGY	ALTERNATIVE STRATEGY	BALANCE (Does not include Alternative totals)						
County	WUG	2021 Needs and Strategies	2020	2030	2040	2050	2060	2070	Strategy Source
ANDERSON		No need identified							
ANGELINA	MANUFACTURING	Identified Need	-1,449	-1,625	-1,625	-1,625	-1,625	-1,625	
		New Wells (Yegua Jackson)	1,449	1,625	1,625	1,625	1,625	1,625	CT
		Purchase from Lufkin (Lake Kurth)	6,000	6,000	6,000	6,000	6,000	6,000	WWP
		Purchase from Lufkin (Sam Rayburn)	0	6,167	7,471	8,628	9,863	11,195	WWP
	MINING	Identified Need	-473	-572	-397	-299	-224	-167	
		Purchase from ANRA (Run of River, Angelina)	473	572	397	299	224	167	WWP
CHEROKEE	ALTO RURAL WSC	Identified Need	0	0	0	-65	-137	-215	
		Municipal Conservation	0	0	0	11	20	24	CT
		New Wells (Carrizo-Wilcox)	0	0	0	54	117	191	CT
	RUSK	Identified Need	0	0	0	0	0	-122	
		New Wells (Carrizo-Wilcox)	0	0	0	0	0	100	CT
		Municipal Conservation	0	0	0	0	0	22	CT
	MINING	Identified Need	-238	-247	-210	-147	-84	-40	
		Purchase from ANRA (Run of River, Angelina)	238	247	210	147	84	40	WUG & WWP
HARDIN		No need identified							
HENDERSON	CHANDLER	Identified Need	0	0	0	0	0	-118	
		Municipal Conservation	0	0	0	0	0	17	CT
		New Wells (Carrizo-Wilcox)	0	0	0	0	0	101	CT
	MOORE STATION WSC	Identified Need	0	0	0	0	-38	-111	
		New Wells (Carrizo-Wilcox)	0	0	0	0	38	111	CT
	MINING	Identified Need	-10	-19	-10	0	0	0	
		New Wells (Carrizo-Wilcox)	10	19	10	0	0	0	CT
HOUSTON	TDCJ EASTHAM UNIT	Identified Need	-221	-211	-202	-198	-197	-197	
		Municipal Conservation	16	25	27	29	30	32	CT
		Expand Existing Supply	205	186	175	169	167	165	WUG
JASPER	LIVESTOCK	Identified Need	-8,932	-8,932	-8,932	-8,932	-8,932	-8,932	
		New Wells (Gulf Coast)	8,932	8,932	8,932	8,932	8,932	8,932	CT
		Identified Need	0	0	-1,102	-3,372	-5,627	-8,230	





Table 5B.1 2021 Needs, Recommended, and Alternative Water Management Strategies for Water User Groups									
NEEDS	RECOMMENDED STRATEGY	ALTERNATIVE STRATEGY	BALANCE (Does not include Alternative totals)						
County	WUG	2021 Needs and Strategies	2020	2030	2040	2050	2060	2070	Strategy Source
JEFFERSON	BEAUMONT	Municipal Conservation	1,313	2,192	3,608	4,653	5,399	5,981	CT
		Amendment to Supplemental Contract with LNVA	0	0	0	0	228	2,249	WWP
	COUNTY-OTHER	Identified Need	0	0	0	-253	-1,434	-2,739	
		Purchase from LNVA (Sam Rayburn)	0	0	0	253	1,434	2,739	WWP
	MANU-FACTURING	Identified Need	-83,972	-98,216	-98,234	-98,281	-98,316	-98,349	
		Purchase from LNVA (Sam Rayburn)	83,972	98,216	98,234	98,281	98,316	98,349	WWP
NACOG-DOCHES	STEAM ELECTRIC	Identified Need	-2,391	-2,391	-2,391	-2,391	-2,391	-2,391	
		Purchase from LNVA (Sam Rayburn)	2,391	2,391	2,391	2,391	2,391	2,391	WWP
	CUSHING	Identified Need	0	0	0	0	-8	-30	
		Municipal Conservation	9	15	21	23	34	43	CT
	D&M WSC	Identified Need	0	0	-32	-135	-251	-374	
		New Wells (Carrizo-Wilcox)	0	0	32	135	251	374	CT
NEWTON	LIVESTOCK	Identified Need	-5,970	-6,399	-6,896	-7,472	-8,131	-9,113	
		New Wells (Carrizo-Wilcox)	5,970	6,399	6,896	7,472	8,131	9,113	CT
	MINING	Identified Need	-5,475	-2,975	-118	0	0	0	
		Purchase from ANRA (Run of River, Angelina)	5,475	2,975	118	0	0	0	WUG & WWP
	MINING	Identified Need	-115	-59	0	0	0	0	
		Purchase from SRA (Toledo Bend)	115	59	0	0	0	0	WWP
ORANGE	IRRIGATION	Identified Need	-526	-526	-526	-526	-526	-526	
		Purchase from SRA (Run of River, Sabine)	526	526	526	526	526	526	WWP
PANOLA	LIVESTOCK	Identified Need	-982	-982	-982	-982	-982	-982	
		New Wells (Carrizo-Wilcox)	982	982	982	982	982	982	CT
POLK		No need identified							
RUSK	JACOBS WSC	Identified Need	0	0	0	0	0	-22	
		New Wells (Carrizo-Wilcox)	0	0	0	0	0	22	CT
	LIVESTOCK	Identified Need	0	0	-20	-51	-83	-83	
		New Wells (Carrizo-Wilcox)	0	0	20	51	83	83	CT
	OVERTON	Identified Need	0	0	-5	-48	-121	-198	
		New Wells (Carrizo-Wilcox)	0	0	5	48	109	177	WUG
		Municipal Conservation	0	0	0	0	12	21	CT



Table 5B.1 2021 Needs, Recommended, and Alternative Water Management Strategies for Water User Groups									
NEEDS	RECOMMENDED STRATEGY	ALTERNATIVE STRATEGY	BALANCE (Does not include Alternative totals)						
County	WUG	2021 Needs and Strategies	2020	2030	2040	2050	2060	2070	Strategy Source
	MINING	Identified Need	0	-305	-168	-22	0	0	
		Purchase from ANRA (Run of River, Angelina)	0	305	168	22	0	0	WUG & WWP
	STEAM ELECTRIC	Identified Need	-1,103	-1,103	-1,103	-1,103	-1,103	-1,103	
		Purchase from SRA (Toledo Bend)	1,103	1,103	1,103	1,103	1,103	1,103	WWP
SABINE		No need identified							
SAN AUGUSTINE	SAN AUGUSTINE	Identified Need	-120	-105	-92	-89	-89	-89	
		Municipal Conservation	11	17	19	21	22	24	CT
		New Wells (Carrizo-Wilcox)	109	88	73	68	67	65	CT
	LIVESTOCK	Identified Need	-1,333	-1,539	-1,774	-2,048	-2,349	-2,349	
		Purchase from SRA	1,333	1,539	1,774	2,048	2,349	2,349	WWP
	MINING	Identified Need	-2,102	-1,102	0	0	0	0	
SHELBY	CENTER	Purchase from ANRA (Run of River, Angelina)	2,102	1,102	0	0	0	0	WUG & WWP
		Identified Need	0	-145	-247	-353	-461	-562	
		Indirect Reuse Pipeline to Lake Center	1,121	1,121	1,121	1,121	1,121	1,121	WUG
		Transfer from toledo Bend to Lake Center	0	0	2,242	2,242	2,242	2,242	WUG
	JOAQUIN	Municipal Conservation	0	28	48	54	60	67	CT
		Identified Need	0	0	-1	-2	-5	-7	
		Toledo Bend (Louisiana)	0	0	1	2	5	7	WUG
	SAND HILLS WSC	Identified Need	-65	-75	-85	-96	-107	-117	
		New Wells (Carrizo-Wilcox) / City of Center	61	68	77	87	97	106	CT
		Municipal Conservation	4	7	8	9	10	11	CT
	LIVESTOCK	Identified Need	-6,491	-8,761	-11,524	-14,896	-19,006	-19,006	
		Purchase from SRA (Toledo Bend)	1,367	2,375	3,602	5,099	6,924	6,924	WWP
	BULLARD	Identified Need	-152	-344	-539	-754	-972	-1,199	
		Municipal Conservation	10	22	28	36	44	54	CT
		Purchase from City of Tyler	142	322	511	718	928	1,145	CT
	CRYSTAL SYSTEMS INC	Identified Need	0	0	-78	-192	-310	-435	
		Municipal Conservation	6	12	15	19	24	29	CT
		Purchase from City of Tyler	0	0	63	173	286	406	WUG





Table 5B.1 2021 Needs, Recommended, and Alternative Water Management Strategies for Water User Groups									
NEEDS	RECOMMENDED STRATEGY	ALTERNATIVE STRATEGY	BALANCE (Does not include Alternative totals)						
County	WUG	2021 Needs and Strategies	2020	2030	2040	2050	2060	2070	Strategy Source
SMITH	R-P-M WSC	Identified Need	0	-2	-5	-11	-13	-17	
		Municipal Conservation	4	23	36	54	71	86	CT
	SOUTHERN UTILITIES	Identified Need	-346	-357	-374	-392	-419	-453	
		Municipal Conservation	711	1,167	1,528	1,790	2,043	2,352	CT
	WHITEHOUSE	Identified Need	0	0	0	0	-39	-257	
		New Wells (Carrizo-Wilcox)	0	0	0	0	39	257	CT
	WRIGHT CITY WSC	Identified Need	0	0	0	-24	-71	-120	
		New Wells (Carrizo-Wilcox)	0	0	0	24	71	120	CT
	MANU-FACTURING	Identified Need	0	-79	-79	-79	-79	-79	
		Purchase from Tyler (Lake Palestine/Lake Tyler/Carrizo-Wilcox)	2,039	2,257	2,467	2,645	2,889	3,154	WWP
	MINING	Identified Need	-3	-8	-9	0	0	0	
		Purchase from City of Tyler	108	113	114	83	54	32	CT
TRINITY		No need identified							
TYLER		No need identified							



Table 5B.2 2021 Needs and Water Management Strategies for Wholesale Water Providers (ac-ft per year)							
RECOMMENDED STRATEGY		ALTERNATIVE STRATEGY					
WWP	2021 Needs and Strategies	2020	2030	2040	2050	2060	2070
ANRA	Identified Needs	-21,176	-62,569	-71,812	-71,387	-71,126	-101,097
	Lake Columbia	0	75,720	75,640	75,560	75,480	75,400
	ANRA Treatment and Distribution System	0	0	0	0	0	0
	Run of River, Neches (New Application)	20,000	20,000	20,000	20,000	20,000	20,000
	Run of River, Neches (Submitted Application)	10,000	10,000	10,000	10,000	10,000	10,000
	New wells (Wilcox Aquifer)	5,600	5,600	5,600	5,600	5,600	5,600
	BALANCE	14,424	48,751	39,428	39,773	39,954	9,903
AN WCID#1	Identified Needs						
	Hydraulic Dredging (Includes Volumetric Survey and Normal Pool Elevation Adjustment)	0	0	5,600	5,600	5,600	5,600
	BALANCE						
ATHENS MWA	Identified Needs	349	-29	-257	-591	-3258	-6,437
	Municipal Conservation	59	98	119	144	277	457
	Amendment of Fish Hatcheries Permit for Reuse	2,872	2,872	2,872	2,872	2,872	2,872
	Additional Carrizo-Wilcox Groundwater	600	600	2,415	2,415	2,415	4,830
	BALANCE	3,880	3,541	5,149	4,840	2,306	1,722
BEAUMONT	Identified Needs	0	0	-1,248	-3,843	-6,357	-9,218
	Municipal Conservation	-	3,238	5,341	7,047	8,579	9,966
	BALANCE	-	3,238	4,093	3,204	2,222	748
CARTHAGE							
No strategies were identified							
CENTER	Identified Need						
	Indirect Reuse Pipeline to Lake Center	1,121	1,121	1,121	1,121	1,121	1,121
	Transfer from Toledo Bend to Lake Center	0	0	2,242	2,242	2,242	2,242
	Municipal Conservation	0	28	48	54	60	67
	BALANCE						
HOUSTON CO WCID #1	Identified Needs	0	0	0	0	0	0
	Permit Amendment - Houston County Lake	3,500	3,500	3,500	3,500	3,500	3,500
	BALANCE	3,500	3,500	3,500	3,500	3,500	3,500
JACKSONVILLE	Identified Needs						
	Supply from Lake Columbia	0	0	1,700	1,700	1,700	1,700



Table 5B.2 2021 Needs and Water Management Strategies for Wholesale Water Providers (ac-ft per year)							
RECOMMENDED STRATEGY	ALTERNATIVE STRATEGY						
WWP	2021 Needs and Strategies	2020	2030	2040	2050	2060	2070
	<b>BALANCE</b>						
<b>LNVA</b>	Identified Needs	0	0	0	0	0	0
	Purchase from SRA (Toledo Bend)	0	0	200,000	200,000	200,000	200,000
	Permit Amendment for Sam Rayburn	0	0	0	0	0	0
	Transfer to Region H	0	0	55,000	55,000	55,000	55,000
	Constructed Levy	1,600	1,600	1,600	1,600	1,600	1,600
	In-Line Reservoir with Atlantic Canal						
	Canal System						
	<b>BALANCE</b>	1,600	1,600	256,600	256,600	256,600	256,600
<b>LUFKIN</b>	Identified Needs						
	Transfer from Rayburn to Lake Kurth – Phase I (2030)	0	11,210	11,210	11,210	11,210	11,210
	Transfer from Rayburn to Lake Kurth – Phase II (2040)			11,210	11,210	11,210	11,210
	Transfer from Rayburn to Lake Kurth – Phase III (2050)				5,580	5,580	5,580
	<b>BALANCE</b>						
<b>NACOGDOCHES</b>	Identified Needs						
	Supply from Lake Columbia	0	8,500	8,500	8,500	8,500	8,500
	<b>BALANCE</b>						
<b>PANOLA COUNTY FWSD</b>	No strategies were identified						
	<b>BALANCE</b>						
<b>PORT ARTHUR</b>	Identified Needs	0	0	0	0	0	0
	Advanced Conservation	4,992	7,450	8,516	9,616	10,340	9,767
	<b>BALANCE</b>	4,992	7,450	8,516	9,616	10,340	9,767
<b>SRA</b>	No strategies were identified						
	<b>BALANCE</b>						
<b>TYLER</b>	Identified Needs						
	Lake Palestine Infrastructure Improvements	0	16,815	16,815	16,815	16,815	16,815
	<b>BALANCE</b>						
	Identified Needs	-12,537	-14,114	-15,592	-17,174	-18,859	-21,159
	Run of River, Neches with Lake Palestine	68,625	68,625	68,625	68,625	68,625	68,625



Table 5B.2 2021 Needs and Water Management Strategies for Wholesale Water Providers (ac-ft per year)							
RECOMMENDED STRATEGY		ALTERNATIVE STRATEGY					
WWP	2021 Needs and Strategies	2020	2030	2040	2050	2060	2070
UNRMWA	Run of River, Neches with Terminal Storage	75,000	75,000	75,000	75,000	75,000	75,000
	Run of River, Neches with Groundwater	84,875	84,875	84,875	84,875	84,875	84,875
	<b>BALANCE</b>	56,088	54,511	53,033	51,451	49,766	47,466

