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Memo

To:	Kevin Kluge, Texas Water Development Board		
From:	David D. Dunn, P.E. Grady Reed	Project:	2006 Brazos G Regional Water Plan
CC:	Scott Mack, Chairman, Brazos G RWPG Teresa Clark, Brazos River Authority David Meesey, Texas Water Development Board		
Date:	April 17, 2006	Job No:	44119036

RE: **April 2006 Updates to the 2006 Brazos G Regional Water Plan**

As a result of an in-depth review of the DB07 database entries for Brazos G and adjacent regions, several minor data discrepancies were identified between the database and the text of the 2006 Brazos G Regional Water Plan after the plan was approved by the Brazos G Regional Water Planning Group and submitted to the Texas Water Development Board. These discrepancies are minor and result largely from the refinement of available water supplies shared between Brazos G and adjacent regions. In addition to these changes, we have taken this opportunity to make some minor editorial refinements on some pages. Attached are the pages in the 2006 Brazos G Regional Water Plan that have been updated. None of these updates result in different water management strategies recommended for specific water use groups or wholesale water providers, but largely reflect updates to water availability and the resulting surpluses and/or shortages projected for some entities.

Attached to this memorandum are hard copies of the updated pages. We are also forwarding electronic files of the pertinent modified report sections, with the modified pages so noted with the addition of “Updated April 2006” in the footer.

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principal tributaries to the Brazos River in the planning area are the Clear Fork, the Double Mountain Fork, the Salt Fork, Bosque River, Little River, Navasota River, Little Brazos River and Yegua Creek. Major water supply reservoirs are owned by the BRA (three in the planning region), U.S. Army Corps of Engineers (nine in the region), West Central Texas MWD, the City of Abilene, and Texas Utilities. The western part of the region is heavily dependent on surface water sources, partly due to the absence of large quantities of potable-quality groundwater.

The State of Texas owns the surface water resources of the State, and issues water rights to utilize surface water. A total of 1,123 water rights currently exist in the Brazos River Basin, with a total authorized diversion of 2,664,000 acft/yr, of which 1,412,102 are located in the BGRWPA. Those rights located in the BGRWPA contribute a total firm supply of 695,479 acft/yr through a repeat of the drought of record. This supply number is less than total surface water availability in the region of 866,372 acft/yr, because supply to irrigation was calculated on a 75 percent available, 75 percent of the time basis, which increases the estimated supply available for irrigation by assuming that irrigation does not require a firm supply year in and year out. It is important to note that a small percentage of the water rights make up a large percentage of the authorized diversion volume. In the Brazos River Basin, 39 water rights (3.4 percent) make up 2,372,000 acft/yr (89 percent) of the authorized diversion volume. The remaining 1,084 water rights primarily consist of small irrigation rights distributed throughout the river basin. Figure ES-6 shows a comparison of significant water rights in the Brazos River Basin by number of rights and diversion volume.

Groundwater Supplies

Fifteen aquifers underlie parts of the Brazos G Area and, if developed fully, can provide a combined reliable supply of about 533,520 acft/yr. As currently developed, a total groundwater supply of 318,630 acft/yr exists in the region. The Seymour Aquifer supplies significant quantities of water in the western part of the region. Other aquifers that are depended on in the western part of the region are the Dockum and the Edwards-Trinity. The Trinity and Edwards-BFZ (Northern Segment) are heavily relied upon in the IH-35 corridor and to the west. Both of these aquifers are being pumped in excess of their estimated sustainable yield in some counties. In the eastern part of the region, the Carrizo-Wilcox is a prolific water supply with lesser amounts pumped from the Queen City, Sparta, and Brazos River Alluvium.

Table ES-3.
Summary of Recommended Water Management Strategies Involving New Sources of Supply in the 2006 Brazos G Regional Water Plan (continued)

Strategy	*WUG or WWP*	*New Supply by 2060 (acft/yr)*	*Total Project Cost (2^{nd} Quarter 2002 Prices)*
New Reservoirs			
Wheeler Branch Off-Channel Reservoir	Somervell County - Other	1,800	$27,195,000
Brushy Creek Reservoir	City of Marlin	2,000	$6,301,610
Total New Reservoirs		**3,800**	**$33,496,610**
Systems Approaches			
West Central Brazos System Optimization Plan	City of Abilene	59,150	$198,055,000
	West Central Texas Municipal Water District		
	Irrigation – Throckmorton County		
BRA System Operation (Excluding Lake Granger Augmentation)	Bell County WCID #1	3,500	$0
	Bosque County – Other	475	
	Manufacturing – Bosque County	1,300	$25,492,000
	Steam-Electric – Bosque County	8,225	
	Brandon-Irene WSC	100	
	City of Hillsboro	100	
	White Bluff Community WS	700	$36,151,000
	Woodrow-Osceola WSC	200	
	Manufacturing – Hill County	100	
	Steam-Electric – Limestone County	16,000	ND
	Other Needs to be Met from BRA System Operation[3]	234,373	ND
Total from Systems Approaches		**324,223**	**> $259,698,000**
Groundwater Development			
Brackish Groundwater	Mining - Nolan County	200	$268,188
Champion Well Field Phases 1 & 2	City of Sweetwater	736	$17,060,471
Carrizo-Wilcox Aquifer – Lee and Milam Counties [BRA System Operation (Lake Granger Augmentation)]	Williamson County entities, see BRA System Operation (Lake Granger Augmentation) (above)	28,263[2]	–
Carrizo-Wilcox Aquifer – Brazos County	City of Bryan	15,300	$33,380,000
	City of College Station		
	Wickson Creek SUD		
	Brazos County – Manufacturing		
Carrizo-Wilcox Aquifer – Burleson County	Manufacturing – Burleson County	150	$124,624 (Annual)
	Irrigation – Burleson County	5,000	$8,718,000

Table ES-3.
Summary of Recommended Water Management Strategies Involving New Sources of Supply in the 2006 Brazos G Regional Water Plan (concluded)

Strategy	*WUG or WWP*	*New Supply by 2060 (acft/yr)*	*Total Project Cost (2^{nd} Quarter 2002 Prices)*
Carrizo-Wilcox Aquifer – Falls County	Falls County – Other	300	$1,376,000
Carrizo-Wilcox Aquifer – Lee County	Aqua WSC	300	$1,047,000
	City of Giddings	400	$2,099,000
	Lee County WSC	750	$1,762,000
	City of Hutto	1,680	$1,927,000 (Annual)
Carrizo-Wilcox Aquifer – Limestone County	City of Groesbeck	100	$566,000
	Manufacturing – Limestone County	100	$566,000
Carrizo-Wilcox Aquifer – Milam County	Southwest Milam WSC	600	$2,079,000
	Steam-Electric – Milam County	8,200	$3,923,000
	City of Hutto	1,680	$1,927,000 (Annual)
Carrizo-Wilcox Aquifer – Robertson County	Robertson County (Manufacturing)	85	$707,000
Trinity Aquifer – Coryell County	Coryell County – Other	1,200	$4,821,000
Trinity Aquifer – Erath County	Manufacturing – Erath County	50	$198,000
Trinity Aquifer – Lampasas County	Lampasas County – Other	850	$2,576,000
Trinity Aquifer – Williamson County	City of Florence	250	$803,500
Gulf Coast Aquifer – Grimes County	Manufacturing – Grimes County	250	$312,000
Total Groundwater Development		**66,444**	**> $86,116,159**
Total New Supplies		**590,426**	**> $1,030,366,769**

1. Not Determined.
2. The Lake Granger Augmentation includes development of an average annual supply of groundwater from the Carrizo-Wilcox Aquifer of 28,263 acft/yr to develop the total new supply of 54,390 acft/yr (Volume II, Section 4B.5).
3. Includes additional BRA contractual commitments not specifically identified in Section 4B.4. Does not include Region H supplies, but does include minor increases to Region C.

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Table 2-4. Per Capita Water Use for Water User Groups in the Brazos G Regional Water Planning Area

Water User Group	Per Capita Use Rates (gpcd)							Reduction Due to Plumbing Fixtures Act (2010 to 2060)
	Base[1] (2000)	2010	2020	2030	2040	2050	2060	
439 WSC	110	106	104	102	101	100	100	6
Abilene	304	164	161	158	155	154	154	10
Acton MUD	148	144	141	139	138	137	137	7
Albany	298	295	291	288	286	284	284	11
Alvarado	125	121	117	115	112	111	111	10
Anson	146	142	139	136	133	131	131	11
Aqua WSC	139	134	131	128	127	126	126	8
Aspermont	180	177	174	171	168	166	166	12
Baird	218	214	211	208	205	203	203	11
Bartlett	180	176	173	170	167	166	166	10
Bellmead	240	237	233	231	228	227	227	10
Bell-Milam Falls WSC	135	130	127	125	124	123	123	7
Belton	147	143	140	138	135	134	134	9
Bethany WSC	100	96	93	90	88	87	87	9
Bethesda WSC	134	129	126	124	123	122	122	7
Beverly Hills	174	171	168	165	161	160	160	11
Biston MWSD	243	239	236	233	230	228	228	11
Bitter Creek WSC	94	90	87	84	81	80	80	10
Blockhouse MUD	116	112	110	109	108	108	108	4
Brandon-Irene WSC	113	109	106	103	100	99	99	10
Breckenridge	149	181	179	177	175	174	174	7
Bremond	163	160	157	154	151	149	149	11
Brenham	195	192	188	185	182	181	181	11
Bruceville-Eddy	413	409	406	404	402	401	401	8
Brushy Creek MUD	150	145	145	145	145	145	145	0
Bryan	147	143	140	137	135	134	134	9
Burleson	150	146	142	140	138	137	137	9
Caldwell	163	198	194	191	188	187	187	11
Calvert	208	205	202	199	196	194	194	11
Cameron	233	230	227	224	221	219	219	11
Cedar Park	185	182	181	180	180	180	180	2
Chalk Bluff WSC	117	113	110	108	107	106	106	7
Childress Creek WSC	121	117	113	111	109	108	108	9
Chisholm Trail SUD	110	142	145	147	150	152	152	0
Cisco	172	169	166	163	160	158	158	11
Cleburne	143	176	173	170	168	167	167	9
Clifton	163	159	155	153	150	149	149	10
Clyde	76	73	70	67	64	62	62	11

Table 2-4 (continued)

Water User Group	Per Capita Use Rates (gpcd)							Reduction Due to Plumbing Fixtures Act (2010 to 2060)
	Base[1] (2000)	2010	2020	2030	2040	2050	2060	
Coleman County WSC	116	116	112	108	107	105	105	11
College Station	225	221	217	215	213	212	212	9
Comanche	110	124	120	117	114	113	113	11
Coolidge	93	89	84	82	80	79	79	10
Copperas Cove	98	93	90	87	85	84	84	9
Bell County-Other	139	138	136	134	133	132	132	6
Bosque County-Other	121	116	113	111	110	109	109	7
Brazos County-Other	124	123	121	119	116	114	114	9
Burleson County-Other	102	98	95	93	91	90	90	8
Callahan County-Other	82	79	76	73	71	69	69	10
Comanche County-Other	117	113	110	107	104	102	102	11
Coryell County-Other	248	244	240	237	235	234	234	10
Eastland County-Other	124	121	118	115	112	110	110	11
Erath County-Other	96	92	89	87	85	84	84	8
Falls County-Other	100	99	97	95	90	86	85	14
Fisher County-Other	195	193	190	188	183	181	182	11
Grimes County-Other	79	76	72	70	67	66	66	10
Hamilton County-Other	114	112	109	105	102	100	100	12
Haskell County-Other	102	99	96	92	89	87	87	12
Hill County-Other	117	115	112	110	109	108	108	7
Hood County-Other	146	143	140	138	137	136	136	7
Johnson County-Other	226	223	221	219	217	216	216	7
Jones County-Other	89	86	83	80	77	75	75	12
Kent County-Other	114	111	108	107	104	99	102	9
Knox County-Other	134	131	128	125	122	120	120	11
Lampasas County-Other	152	149	146	144	142	141	141	8
Lee County-Other	131	128	125	122	119	117	117	11
Limestone County-Other	104	100	97	94	91	90	90	10
McLennan County-Other	221	217	213	211	208	207	207	10
Milam County-Other	138	135	132	129	126	124	124	11
Nolan County-Other	94	91	87	84	81	80	80	11
Palo Pinto County-Other	134	130	126	123	121	120	120	10
Robertson County-Other	120	117	114	112	110	109	109	8
Shackelford County-Other	194	190	186	183	181	179	179	11
Somervell County-Other	92	88	86	84	82	81	81	7
Stephens County-Other	167	164	161	158	155	153	153	11
Stonewall County-Other	124	120	117	114	111	109	109	11
Taylor County-Other	86	82	79	76	73	72	72	10
Throckmorton County-Other	116	112	110	106	104	102	102	11
Washington County-Other	111	107	104	101	99	98	98	9
Williamson County-Other	141	139	136	132	129	127	127	12

Table 2-4 (continued)

Water User Group	Per Capita Use Rates (gpcd)							Reduction Due to Plumbing Fixtures Act (2010 to 2060)
	Base[1] (2000)	2010	2020	2030	2040	2050	2060	
Young County-Other	203	199	196	193	190	188	188	12
Crawford	80	76	73	70	67	66	66	10
Cross Country WSC	149	144	141	139	137	136	136	8
Cross Plains	143	140	137	134	131	129	129	11
De Leon	105	101	98	95	92	91	91	10
Dog Ridge WSC	148	144	141	139	138	137	137	7
Dublin	108	104	100	97	95	94	94	10
East Bell County WSC	98	94	91	88	86	85	85	9
Eastland	208	204	201	198	195	193	193	11
Elm Creek WSC	95	90	88	86	85	84	84	6
Fern Bluff MUD	125	122	121	120	120	120	120	2
Files Valley WSC	188	185	182	179	176	175	175	9
Florence	163	158	155	152	150	149	149	9
Fort Belknapp WSC	91	88	86	84	82	81	81	7
Fort Gates WSC	130	126	123	120	118	117	117	9
Fort Hood (CDP)[2]	197	227	224	221	218	216	216	11
Franklin	197	193	190	187	184	183	183	10
Gatesville	159	155	152	150	149	148	148	7
Georgetown	193	188	186	184	183	183	183	5
Gholson	126	122	119	116	115	114	114	8
Giddings	172	168	165	163	161	160	160	8
Glen Rose	223	220	216	213	210	209	209	11
Godley	135	131	128	127	125	125	125	6
Gorman	103	99	96	93	90	88	88	11
Graford	100	98	95	91	89	87	87	10
Graham	159	155	152	149	146	144	144	11
Granbury	313	309	306	303	302	301	301	8
Grandview	132	128	125	122	119	118	118	10
Granger	122	118	115	112	109	108	108	10
Groesbeck	132	128	125	123	122	121	121	7
Hallsburg	222	218	216	212	209	208	208	10
Hamilton	171	168	165	162	159	157	157	11
Hamlin	145	141	138	135	132	130	130	11
Harker Heights	150	146	143	140	138	137	137	9
Haskell	168	165	161	158	155	153	153	12
Hawley	232	229	225	223	220	219	217	12
Hawley WSC	72	70	67	65	63	62	62	8
Hearne	218	214	211	208	205	203	203	11
Hewitt	148	143	140	137	135	134	134	9
Hico	194	190	187	184	181	179	179	11
Hillsboro	185	182	179	176	173	172	172	10

Table 2-4 (continued)

Water User Group	Per Capita Use Rates (gpcd)							Reduction Due to Plumbing Fixtures Act (2010 to 2060)
	Base[1] (2000)	2010	2020	2030	2040	2050	2060	
Holland	105	101	98	95	92	90	90	11
Hubbard	104	101	98	95	92	90	90	11
Hutto	126	121	119	118	117	117	117	4
Itasca	127	123	120	116	114	112	112	11
Jarrell-Schwertner WSC	186	181	179	177	175	175	175	6
Jayton	204	200	197	195	190	190	188	11
Johnson County FWSD #1	122	117	114	111	110	109	109	8
Johnson County SUD	171	173	173	176	186	189	190	(17)
Jonah Water SUD	130	140	143	141	139	138	138	2
Joshua	134	130	126	123	121	120	120	10
Keene	98	94	91	89	87	86	86	8
Kempner	212	208	206	204	203	202	202	6
Kempner WSC	305	301	298	297	296	295	295	6
Killeen	132	154	179	177	174	170	167	0
Knox City	171	168	165	162	159	157	157	10
Lacy-Lakeview	105	101	98	96	95	94	94	7
Lake Whitney Water Co.	106	103	100	97	94	92	92	11
Lampasas	161	200	195	190	185	183	180	20
Leander	158	153	151	149	148	148	148	5
Lee County WSC	136	131	127	125	124	123	123	8
Lexington	183	179	175	173	171	170	170	9
Liberty Hill	170	166	164	164	163	163	163	3
Little River-Academy	141	137	134	131	128	127	127	10
Lometa	138	134	131	128	126	125	126	8
Lorena	206	201	197	194	192	191	191	10
Lott	122	120	116	113	110	109	109	11
Mansfield	212	235	243	241	241	241	242	0
Manville WSC	123	119	116	114	114	115	114	4
Marlin	350	346	343	340	337	336	336	10
Mart	125	121	118	115	113	112	112	9
McGregor	179	175	172	169	166	164	164	11
Meridian	130	126	123	120	117	116	116	10
Merkel	148	144	141	138	135	134	134	10
Mexia	165	162	159	156	152	150	150	12
Milano WSC	99	95	91	89	87	86	86	9
Mineral Wells	175	171	168	166	163	162	162	9
Moffat WSC	84	81	78	76	74	73	73	8
Moody	127	124	120	117	114	113	113	11
Morgans Point Resort	104	100	97	95	94	93	93	7
Mountain Peak WSC	166	161	159	158	156	156	156	5
Munday	161	157	154	151	148	146	146	11
Navasota	182	179	175	172	169	168	168	11

Table 2-4 (continued)

Water User Group	Per Capita Use Rates (gpcd)							Reduction Due to Plumbing Fixtures Act (2010 to 2060)
	Base[1] (2000)	2010	2020	2030	2040	2050	2060	
Newcastle	93	91	86	83	81	79	79	11
Nolanville	124	119	116	113	110	109	109	10
North Bosque WSC	185	180	177	176	175	174	174	6
Oak Trail Shores Subdivision	134	130	128	125	123	122	122	8
Parker WSC	121	117	114	111	110	109	109	8
Pendleton WSC	85	80	78	75	73	72	72	8
Potosi WSC	103	100	97	95	92	91	91	9
Ranger	113	109	106	103	100	98	98	11
Riesel	95	91	88	85	83	82	82	8
Rio Vista	88	84	80	77	75	74	74	10
Rising Star	82	79	76	73	70	68	68	11
Robertson County WSC	77	72	69	67	66	65	65	7
Robinson	122	118	115	112	109	108	108	10
Roby	103	99	98	95	92	91	91	8
Rockdale	188	200	200	200	200	200	200	0
Rogers	159	156	153	150	147	145	145	11
Roscoe	121	117	113	110	107	106	106	11
Rosebud	106	102	99	96	93	91	91	11
Rotan	161	159	155	152	149	147	147	12
Round Rock	201	197	194	192	191	191	191	6
Rule	110	108	105	101	98	97	95	12
Salado WSC	229	225	222	220	219	218	218	7
Snook	215	210	209	205	202	202	202	9
Somerville	165	161	158	155	152	151	151	10
Southwest Milam WSC	150	146	143	140	139	138	138	8
Stamford	159	155	152	149	146	145	145	10
Steamboat Mountain WSC	70	67	64	62	60	59	59	8
Stephens County Rural WSC	88	113	109	107	102	100	101	12
Stephenville	157	152	149	146	143	142	142	10
Strawn	188	186	183	180	177	176	176	10
Sweetwater	228	225	221	218	215	214	214	11
Taylor	150	145	142	139	137	136	136	9
Temple	317	301	288	278	269	263	259	42
Thorndale	126	121	118	115	112	111	111	10
Thornton	95	92	89	85	83	82	82	10
Thrall	133	128	125	123	121	120	120	8
Throckmorton	233	229	226	223	220	218	218	11
Tolar	174	170	167	165	161	159	159	11
Tri-County SUD	80	76	73	70	68	67	67	9
Troy	124	120	117	114	111	109	109	11
Tuscola	90	86	82	80	79	77	77	9
Tye	132	127	124	121	118	117	117	10

Table 2-4 (concluded)

Water User Group	Per Capita Use Rates (gpcd)							Reduction Due to Plumbing Fixtures Act (2010 to 2060)
	Base[1] (2000)	2010	2020	2030	2040	2050	2060	
Valley Mills	188	185	181	178	175	174	174	11
Venus	135	133	131	128	126	125	125	8
Waco	183	183	183	183	183	183	183	0
Walnut Springs	111	108	104	101	98	97	97	11
Weir	153	149	148	147	146	146	146	3
Wellborn SUD	117	113	110	108	107	106	106	7
Wells Branch MUD	165	165	159	159	159	154	154	11
West	148	145	141	138	135	134	134	11
West Bell County WSC	111	108	105	102	99	98	98	10
West Brazos WSC	78	74	71	68	67	66	66	8
Western Hills Ws	100	96	93	91	90	89	89	7
White Bluff Community Ws	274	272	270	268	267	267	267	5
Whitney	154	151	148	145	142	141	141	10
Wickson Creek SUD	97	121	118	113	112	112	112	9
Williamson-Travis County MUD #1	109	104	102	101	100	100	100	4
Woodrow-Osceola WSC	49	45	42	39	37	36	36	9
Woodway	304	300	297	294	291	289	289	11
Min.	**49**	**45**	**42**	**39**	**37**	**36**	**36**	
Max.	**413**	**409**	**406**	**404**	**402**	**401**	**401**	
Mean	**149**	**147**	**144**	**141**	**139**	**138**	**138**	

[1] Per capita use rates for years 2010 to 2060 reflect revisions requested by entities and accepted by the TWDB. Base (year 2000) rates were not revised by the TWDB and reflect the original water use rates prior to requested revisions. In some cases, the year 2000 rate is inconsistent with ensuing decades.

[2] For Fort Hood in year 2000, the 197 gpcd rate was divided into an assumed rate of 145 gpcd (Brazos G average) for personnel living on-post, with the remaining 52 gpcd assigned to personnel working on the post but living off-post. The total per capita water use rate is necessarily applied to only that population living on-post. Future increases in per capita water use reflect increased demands from Fort Hood-supplied population projections applied against the lower TWDB population projections.

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with smaller, rural water utilities where outside water use for lawns or landscaping is limited, or is supplemented with individual residential wells and/or stock tanks. Larger per capita water use is typically associated with areas having large suburban residential growth or established urban areas having significant commercial water use. The Conservation Task Force formed by the 78th Texas Legislature has recommended a target per capita water use of 140 gpcd.[1]

Municipal water use for the region is projected to increase by 278,684 acft between 2000 and 2060, from 316,798 acft to 595,482 acft, an 88 percent increase. As can be seen in Figure 2-5, seven counties—Bell, Brazos, Coryell, Johnson, McLennan, Taylor, and

[1] Water Conservation Implementation Task Force, Report to the 79th Texas Legislature, Texas Water Development Board, Special Report, Austin, Texas, November 2004.

Williamson—are projected to account for 83 percent of the total municipal water use in 2060. Municipal water use projections for all 37 counties and 221 cities, other utilities, and "county-other" in the region are presented in Table 2-5.

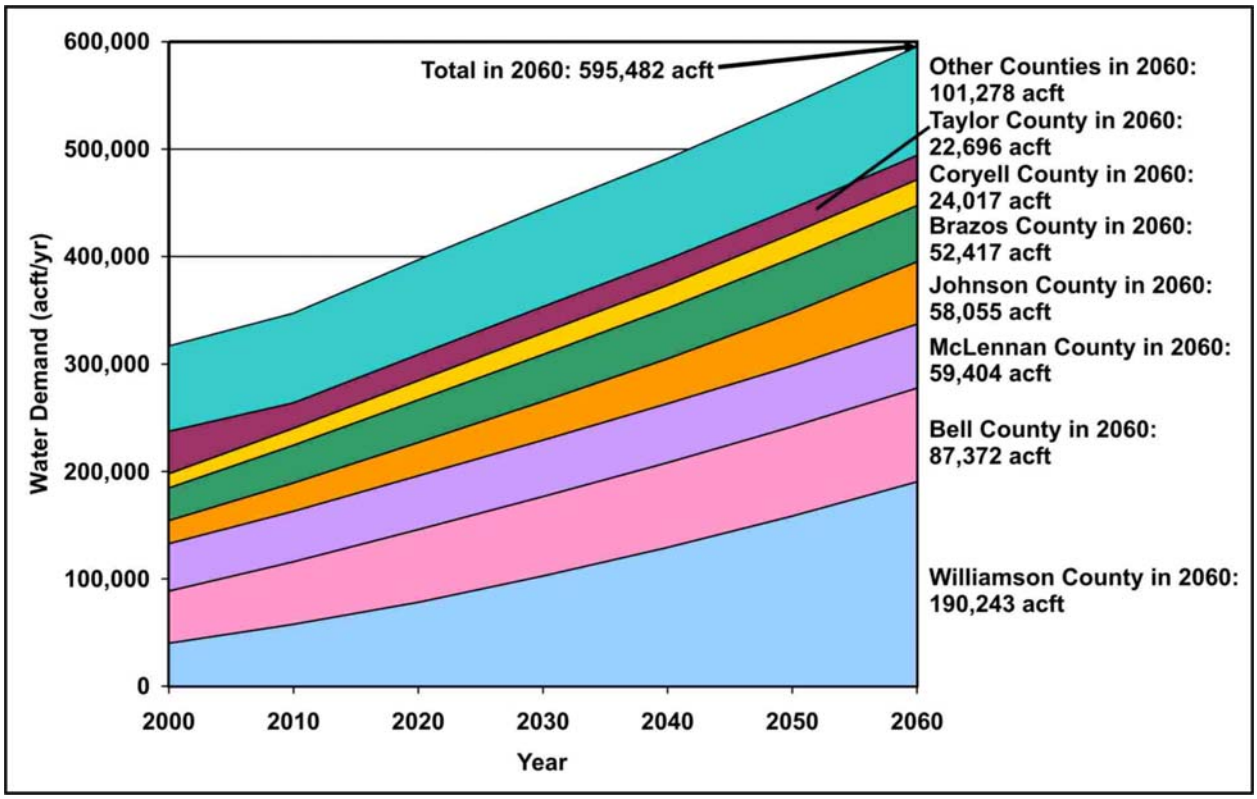

Figure 2-5. Municipal Water Demand Projections

The 88 percent projected increase in municipal water demand over the 60-year planning horizon is lower than the projected population increase of 105 percent due to expected savings in per capita water use resulting from continued implementation of the 1991 State Water-Efficient Plumbing Act.

2.3.2 Manufacturing Water Demand

Manufacturing is an integral part of the economy of the Brazos G Area, and for many industries water is key to the manufacturing process. It can be used in a variety of ways, including as a component of the final product, as a cooling agent during the manufacturing process, or for cleaning/wash-down of parts and/or products. In the Brazos G Area, industries that are major water users include food and kindred products, apparel, fabricated metal, machinery, and stone and concrete production.

Table 3.2-2.
Yields for Large Reservoirs in the Brazos G Area (acft/yr)

Reservoir	*Year 2000 Yield*	*Year 2060 Yield*	*Firm or Safe Yield*	*1997 or 2004 Hydrology*
Abilene	1,200	525	Safe	2004
ALCOA[1]	7,800	7,700	Firm	1997
Anson	120	120	Firm	1997
Anson North	65	194	Safe	2004
Aquilla	13,896	5,142	Firm	1997
Baird	385	385	Firm	1997
Belton	98,534	97,217	Firm	1997
Cisco	1,340	1,340	Safe	2004
Daniel	180	150	Safe	2004
Dansby Power Plant	85	85	Firm	1997
Lake Eastland (C3465)	520	520	Firm	1997
Fort Phantom Hill	7,430	6,940	Safe	2004
Georgetown	12,025	12,003	Firm	1997
Gibbons Creek[1]	6,310	6,310	Firm	1997
City of Gordon (C4355)	5	5	Firm	1997
Graham/Eddleman	4,550	3,650	Safe	2004
Granbury	64,712	63,212	Firm	1997
Granger	19,840	9,219	Firm	1997
Hubbard Creek	17,440	16,750	Safe	2004
Kirby	500	320	Safe	2004
Lake Creek Steam-Electric	10,000	9,945	Firm	1997
Lake Davis	100	0	Safe	2004
Leon	5,960	5,870	Firm	1997
Limestone	65,074	55,744	Firm	1997
City of Marlin Reservoirs (C4355)	2650	2650	Firm	1997
Mart	No Yield	No Yield	Firm	1997
McCarty Lake	100	370	Safe	2004
Mexia	1,180	144	Firm	1997
Miller's Creek	700	0	Safe	2004
Mineral Wells	2,520	2,430	Firm	1997
Palo Pinto	8,500	6,660	Safe	1997
Pat Cleburne	5,275	4,837	Firm	1997
Possum Kingdom	230,750	230,750	Firm	1997
Post Dam (North Fork)	5,500	5,250	Firm	1997

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3.4 Groundwater Availability

Fifteen aquifers underlie parts of the Brazos G Area, including six of the major and nine of the minor aquifers in Texas.[5] As presented earlier, Figures 1-9 and 1-10 show locations of the major and minor aquifers. A description of each aquifer, including groundwater availability, is presented in Appendix B. Table 3.4-1 summarizes groundwater availability by aquifer and by area. Table 3.4-2 is a compilation of groundwater availability and estimated supply by county. The availability estimates do not include saline water (greater than 1,000 milligrams per liter of total dissolved solids) and assumes a uniform distribution of withdrawals.

Table 3.4-1.
Groundwater Availability from BGRWPA Aquifers

Aquifer	*2060 Availability (acft/yr)*	*Typical Range in Well Yields (gpm)*
Western Area		
Seymour	67,055	100 to 1,000
Dockum	3,700	100 to 400
Blaine	1,333	less than 25
Edwards-Trinity (Plateau)	1,500	5 to 300
Subtotal:	73,588	
Central Area		
Trinity	77,563	50 to 500
Edwards-BFZ (Northern Segment)	12,500	200 to 2,000
Woodbine	2,432	50 to 150
Marble Falls	4,183	less than 100
Ellenburger-San Saba	551	
Hickory	ND	ND
Subtotal:	97,229	
Southeastern Area		
Brazos River Alluvium	66,700	250 to 500
Carrizo-Wilcox	251,000	100 to 3,000
Queen City	3,459	200 to 500
Sparta	10,333	200 to 600
Gulf Coast	28,296	300 to 800
Subtotal:	359,788	
Other and Undifferentiated	2,915	—
Total:	533,520	

BFZ – Balcones Fault Zone.
ND indicates not determined.

[5] Texas Water Development Board, *Water for Texas,* 1997.

Table 3.4-2.
Groundwater Availability and Supply from BGRWPA Counties and Aquifers

County	*Aquifer*	*Availability (acft/yr)*	*2010 Supply (acft/yr)*	*2060 Supply (acft/yr)*
Bell	Edwards-BFZ (Northern Segment)	2,500	1,200	1,200
	Trinity	2,169	1,383	1,353
	Subtotal:	4,669	2,583	2,553
Bosque	Brazos River Alluvium	2,500	671	598
	Trinity	1,718	1,718	1,718
	Subtotal:	4,218	2,389	2,316
Brazos	Brazos River Alluvium	12,500	2,074	1,620
	Carrizo-Wilcox	53,000	37,282	37,282
	Gulf Coast	1,177	0	0
	Queen City	645	285	285
	Sparta	2,107	2,103	2,107
	Subtotal:	69,429	41,744	41,294
Burleson	Brazos River Alluvium	9,400	8,583	6,914
	Carrizo-Wilcox	44,000	2,873	2,873
	Queen City	672	612	612
	Sparta	1,666	1,301	1,300
	Subtotal:	55,738	13,369	11,699
Callahan	Trinity	3,787	1,971	1,919
	Subtotal:	3,787	1,971	1,919
Comanche	Trinity	21,976	20,772	19,775
	Subtotal:	21,976	20,772	19,775
Coryell	Trinity	1,791	484	494
	Subtotal:	1,791	484	494
Eastland	Trinity	4,853	4,853	4,853
	Subtotal:	4,853	4,853	4,853
Erath	Trinity	20,165	14,820	14,284
	Subtotal:	20,165	14,820	14,284
Falls	Brazos River Alluvium	15,600	1,230	1,041
	Carrizo-Wilcox	1,000	0	0
	Trinity	161	161	161
	Subtotal:	16,761	1,391	1,202
Fisher	Dockum	100	100	100
	Seymour	7,000	2,809	2,463
	Subtotal:	7,100	2,909	2,563

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Table 3.4-2 (continued)

County	*Aquifer*	*Availability (acft/yr)*	*2010 Supply (acft/yr)*	*2060 Supply (acft/yr)*
Grimes	Brazos River Alluvium	1,700	0	0
	Carrizo-Wilcox	5,000	171	172
	Gulf Coast	14,083	4,614	4,620
	Queen City	462	0	0
	Sparta	2,044	379	379
	Subtotal:	23,289	5,164	5,171
Hamilton	Trinity	2,146	1,142	1,118
	Subtotal:	2,146	1,142	1,118
Haskell	Seymour	20,055	20,000	20,000
	Subtotal:	20,055	20,000	20,000
Hill	Trinity	2,383	2,081	2,081
	Woodbine	1,433	458	447
	Subtotal:	3,816	2,539	2,528
Hood	Trinity	6,163	5,909	5,909
	Subtotal:	6,163	5,909	5,909
Johnson	Trinity	2,053	2,053	2,053
	Woodbine	866	553	553
	Subtotal:	2,919	2,606	2,606
Jones	Seymour	8,000	4,245	3,703
	Subtotal:	8,000	4,245	3,703
Kent	Dockum	100	0	0
	Seymour	5,700	1,263	1,130
	Subtotal:	5,800	1,263	1,130
Knox	Blaine	1,333	0	0
	Seymour	24,000	23,910	23,910
	Subtotal:	25,333	23,910	23,910
Lampasas	Ellenburger-San Saba	551	0	0
	Marble Falls	4,183	33	27
	Trinity	2,145	906	889
	Subtotal:	6,879	939	916
Lee	Carrizo-Wilcox	45,000	9,138	3,616
	Queen City	1,240	924	892
	Sparta	3,900	150	150
	Subtotal:	50,140	10,212	4,658
Limestone	Carrizo-Wilcox	20,000	13,604	13,627
	Trinity	66	0	0
	Woodbine	33	0	0
	Subtotal:	20,099	13,604	13,627

Table 3.4-2 (concluded)

County	*Aquifer*	*Availability (acft/yr)*	*2010 Supply (acft/yr)*	*2060 Supply (acft/yr)*
McLennan	Brazos River Alluvium	15,600	2,359	2,300
	Trinity	1,718	1,718	1,718
	Woodbine	100	11	11
	Subtotal:	17,418	4,088	4,029
Milam	Carrizo-Wilcox	45,000	17,239	14,719
	Trinity	321	0	0
	Subtotal:	45,321	17,239	14,719
Nolan	Dockum	3,500	3,500	3,500
	Edwards-Trinity (Plateau)	1,000	836	836
	Subtotal:	4,500	4,336	4,336
Palo Pinto	Trinity	286	49	48
	Subtotal:	286	49	48
Robertson	Brazos River Alluvium	6,300	5,150	38
	Carrizo-Wilcox	38,000	28,037	21,490
	Queen City	440	0	0
	Sparta	616	0	0
	Subtotal:	45,356	33,187	21,528
Shackelford		0	0	0
	Subtotal:	0	0	0
Somervell	Trinity	1,233	1,233	1,233
	Subtotal:	1,233	1,233	1,233
Stephens	Other Aquifer	705	705	705
	Subtotal:	705	705	705
Stonewall	Seymour	2,300	465	419
	Subtotal:	2,300	465	419
Taylor	Edwards-Trinity (Plateau)	500	28	25
	Trinity	679	424	476
	Subtotal:	1,179	452	501
Throckmorton	Other Aquifer	364	89	101
	Subtotal:	364	89	101
Washington	Brazos River Alluvium	3,100	0	0
	Gulf Coast	13,036	4,957	4,998
	Subtotal:	16,136	4,957	4,998
Williamson	Edwards-BFZ (Northern Segment)	10,000	10,000	10,000
	Trinity	1,750	1,750	1,750
	Other Aquifer	665	665	665
	Subtotal:	12,415	12,415	12,415
Young	Other Aquifer	1,181	541	602
	Subtotal:	1,181	541	602
Total:		533,520	278,591	253,878

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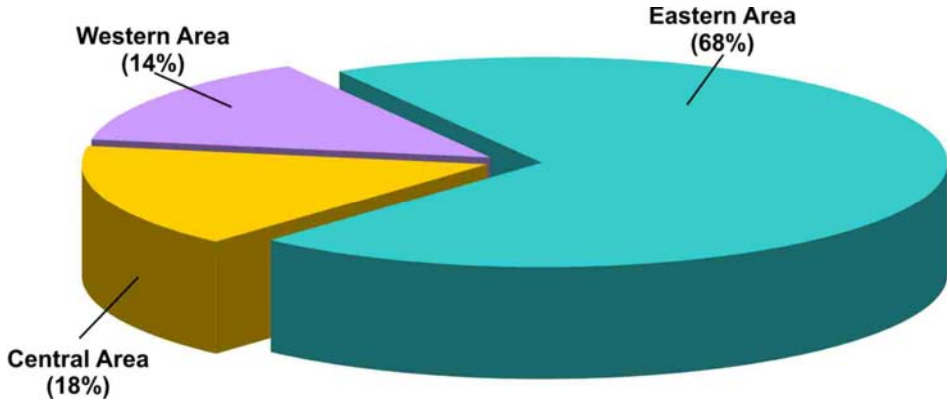

Figure 3.4-1. Distribution of Groundwater by Area — 533,520 acft/yr

3.4.2 Western Area

Only part of the western area is underlain by a major or minor aquifer, as shown in Figures 1-9 and 1-10. Together, the four aquifers—Blain, Dockum, Edwards-Trinity (Plateau), and Seymour—can supply up to 73,588 acft/yr. Of the four aquifers, the Seymour Aquifer has nearly 91 percent of the supplies and is scattered in six counties (Figure 3.4-2); however, about two-thirds of the supply is in Knox and Haskell Counties. The Dockum Aquifer exists only on the western fringe and can contribute about 5 percent of the groundwater supply in the area. Undifferentiated aquifers underlie some of the area, including all of Shackelford, Stephens, Throckmorton, and Young Counties. At best, the undifferentiated aquifers can provide only meager supplies for livestock and domestic uses.

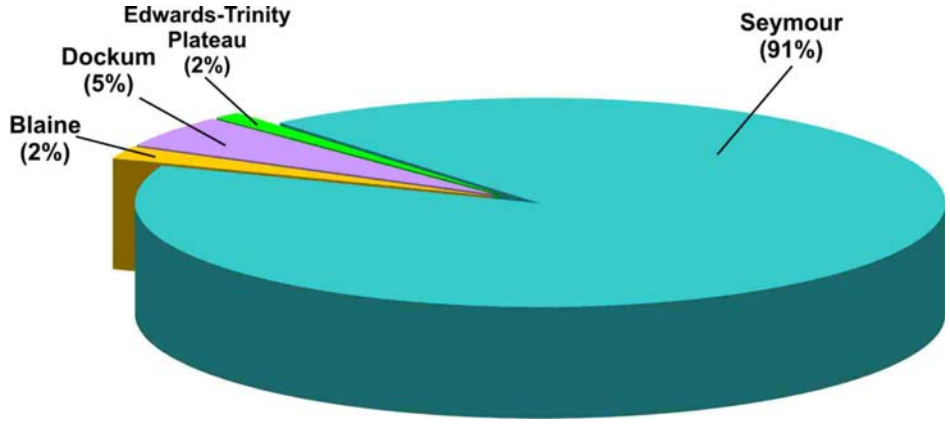

Figure 3.4-2. Groundwater Availability in the Western Area — 73,588 acft/yr

4A.2.1 Projected Municipal Shortages

Water shortages are projected for 92 municipal WUGs, which are listed in Table 4A-1, along with the projected year 2030 and 2060 shortages, and the approximate decade that shortages are expected to begin. Thirty of the 37 counties in the Brazos G Area are projected to have at least one municipal WUG shortage. The County-Other category includes water supply corporations, water districts, privately owned utilities, and small towns that generally supplied less than 280 acft of water in the year 2000. The County-Other category is projected to be water short in 15 counties: Bosque, Coryell, Eastland, Falls, Hood, Johnson, Kent, Knox, Lampasas, McLennan, Nolan, Palo Pinto, Somervell, Stephens, and Williamson.

4A.2.2 Projected Manufacturing Shortages

Table 4A-2 lists the counties projected to have shortages in the Manufacturing Use category, projected year 2030 and 2060 shortages, and the approximate decade shortages are projected to begin. Eighteen of the 37 counties in the Brazos G area are projected to have manufacturing shortages, with the largest shortages occurring in Johnson, Williamson, Bell, and Bosque Counties.

4A.2.3 Projected Steam-Electric Shortages

Table 4A-3 lists the nine counties projected to have shortages in the Steam-Electric Use category, projected year 2030 and 2060 shortages, and the approximate decade shortages are projected begin.

Table 4A-1.
Municipal WUGs with Projected Water Shortages

County	Shortages Begin	Projected Shortages (acft/yr)	
		Year 2030	Year 2060
Bell County			
Bartlett (P)	2010	(85)	(99)
Bell-Milam-Falls (P)	2020	(39)	(76)
Dog Ridge WSC	2010	(205)	(311)
Elm Creek WSC (P)	2010	(181)	(206)
Jarrell-Schwertner WSC (P)	2060	0	(1)
Killeen	2050	0	(2,157)
Little River Academy	2010	(20)	(29)
Morgans Point Resort	2010	(202)	(255)
Bosque County			
Childress Creek WSC	2010	(193)	(206)
Cross Country WSC (P)	2010	(29)	(32)
Meridian	2010	(68)	(69)
Valley Mills	2010	(103)	(102)
Walnut Springs	2010	(60)	(59)
County-Other	2010	(842)	(919)
Brazos County			
Bryan	2050	0	(1,341)
College Station	2020	(5,603)	(11,166)
Wickson Creek SUD (P)	2020	(474)	(1,074)
Burleson County			
Southwest Milam WSC (P)	2010	(21)	(34)
Callahan County			
Coleman County WSC (P)	2010	(44)	(26)
Potosi WSC (P)	2010	(1)	(0)
Comanche County			
None			
Coryell County			
Elm Creek WSC (P)	2010	(69)	(96)
Gatesville	2040	0	(1,232)
County-Other	2010	(2,103)	(2,776)
Eastland County			
Rising Star	2010	(10)	0
County-Other	2010	(205)	(99)
Erath County			
None			

Table 4A-1 (continued)

County	Shortages Begin	Projected Shortages (acft/yr)	
		Year 2030	Year 2060
Falls County			
Bell-Milam-Falls WSC (P)	2010	(115)	(241)
Elm Creek WSC (P)	2010	(7)	(11)
West Brazos WSC (P)	2010	(250)	(351)
County-Other	2010	(111)	0
Fisher County			
Rotan[1]	2010	(1)	(33)
Grimes County			
Wickson Creek SUD (P)	2010	(665)	(1,017)
Hamilton County			
None			
Haskell County			
Haskell	2010	(383)	(472)
Rule	2010	0	0
Hill County			
Brandon-Irene WSC	2050	0	(92)
Hillsboro	2060	0	(20)
Parker WSC (P)	2010	(46)	(58)
White Bluff Community WS	2010	(341)	(663)
Woodrow-Osceola WSC	2010	(120)	(154)
Hood County			
Oak Trail Shores Sub.	2010	(114)	(101)
County-Other	2010	(1,195)	(3,543)
Johnson County			
Alvarado	2010	(473)	(647)
Bethany WSC	2010	(344)	(515)
Bethesda WSC	2010	(3,722)	(6,703)
Burleson	2010	(1,910)	(3,996)
Cleburne	2050	0	(2,853)
Godley	2010	(224)	(403)
Grand View	2060	0	(1)
Johnson County FWSD #1	2040	0	(609)
Johnson County Rural WSC	2030	(2,482)	(13,259)
Joshua	2010	(782)	(1,163)
Mountain Peak WSC	2010	(421)	(888)
Parker WSC (P)	2010	(354)	(617)
Rio Vista	2010	(69)	(106)
County-Other	2010	(2,516)	(2,977)

[1]These apparent needs are negated with a Water Management Strategy in Region F involving subordination of downstream senior water rights in the Colorado River Basin. No strategy is, therefore, identified in the Fisher County plan for Rotan (Section 4C.11), but it is identified in the TWDB DB07 database.

Table 4A-19.
Wholesale Water Provider Summary
City of Sweetwater

Name: **City of Sweetwater**

Description: The City of Sweetwater owns and operates two reservoirs in the BGRWPA, Lake Sweetwater and Lake Trammel, and a groundwater well field in the Dockum Aquifer. The City also owns and operates the Oak Creek Reservoir in Coke County (Region F) in the Colorado River Basin. The City of Sweetwater provides wholesale water to entities in Nolan and Fisher Counties, and the City of Bronte in Region F. The City also has a contract with American Electric Power (AEP) for cooling water from Oak Creek Reservoir. In 2000, Sweetwater sold approximately 750 acft of wholesale water to its municipal customers and 370 acft for steam electric power. At this time, the AEP power plant on Oak Creek Reservoir is not operating due to the low lake levels from the on-going drought in the region.

Projected Demands:

	Year (acft/yr)					
Major Water Contract Holders	***2010***	***2020***	***2030***	***2040***	***2050***	***2060***
City of Sweetwater	3,013	3,072	3,081	3,029	2,900	2,763
Bitter Creek WSC	460	460	460	460	460	460
City of Blackwell	168	168	168	168	168	168
City of Bronte	504	504	504	504	504	504
City of Roby	350	350	350	350	350	350
City of Trent	187	187	187	187	187	187
Fort Chadborne Ranch	135	135	135	135	135	135
Nolan County Manufacturing	550	550	550	550	550	550
Fisher County Manufacturing	92	125	155	184	210	236
American Electric Power (AEP)	800	800	800	800	800	800
Total Demand	6,259	6,351	6,390	6,367	6,264	6,153

Supplies:

	Year (acft/yr)					
Source	***2010***	***2020***	***2030***	***2040***	***2050***	***2060***
Run-of-the-River Right	717	717	717	717	717	717
Lake Sweetwater	1,026	1,017	1,008	998	989	980
Dockum Aquifer	1,044	1,049	1,054	1,060	1,065	1,070
Total Supply	2,787	2,783	2,779	2,775	2,771	2,767

Projected Balance:

	Year (acft/yr)					
	2010	***2020***	***2030***	***2040***	***2050***	***2060***
Balance/(Shortage)	(3,472)	(3,568)	(3,611)	(3,592)	(3,493)	(3,386)

Table 4A-1 (concluded)

County	Shortages Begin	Projected Shortages (acft/yr)	
		Year 2030	Year 2060
Shackelford County			
None			
Somervell County			
County-Other	2010	(231)	(260)
Stephens County			
County-Other	2010	(216)	(193)
Stonewall County			
Aspermont	2010	0	0
Taylor County			
Abilene (P)	2010	(13,482)	(12,466)
Coleman County WSC (P)	2010	(20)	(18)
Merkel	2010	(85)	(52)
Potosi WSC (P)	2010	(119)	(84)
Tye	2010	(43)	(29)
Throckmorton County			
None			
Washington County			
None			
Williamson County			
Aqua WSC (P)	2010	(30)	(88)
Bartlett (P)	2010	(61)	(90)
Bell-Milam-Falls WSC (P)	2010	(33)	(92)
Cedar Park	2030	(6,650)	(26,819)
Chisholm Trail SUD	2030	(1,021)	(7,927)
Florence	2020	(63)	(232)
Georgetown	2060	0	(3,429)
Hutto	2010	(407)	(780)
Jarrell-Schwertner WSC (P)	2020	(374)	(1,415)
Jonah Water SUD	2040	0	(1,531)
Leander	2060	0	(232)
Liberty Hill	2010	(788)	(1,722)
Round Rock	2020	(10,566)	(42,548)
Southwest Milam WSC (P)	2010	(161)	(418)
Thrall	2010	(144)	(239)
Weir	2010	(277)	(557)
County-Other	2040	0	(3,125)
Young County			
None			

Number of utility-specific WUGs on list:	Number of County-Others:	Total:
74	15	89

(P) Indicates WUG is in multiple counties.

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4C.2.3 City of Meridian

4C.2.3.1 Description of Supply

The City of Meridian obtains its water supply from groundwater from the Trinity Aquifer. Based on the available groundwater supply, the City is projected to have a shortage of 68 acft/yr in the year 2030 and 69 acft/yr in the year 2060.

4C.2.3.2 Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended to meet the projected shortage of the City of Meridian:

- Purchase water from the City of Clifton through the Bosque County Regional Project (Section 4B.14.1).
- Conservation was also considered; however, the City's current per capita use rate is below the selected target rate of 140 gpcd.

4C.2.3.3 Costs

Costs of the recommended plan for the City of Meridian to meet the projected shortages are:

a. Purchase water from the City of Clifton through the Bosque County Regional Project:
   - Cost Source: Cost estimate from strategy evaluation (Section 4B.14.1)
   - Date to be Implemented: before 2010
   - Total Project Cost: $2,261,000
   - Annual Cost: $212,000

Table 4C.2-3.
Recommended Plan Costs by Decade for the City of Meridian

Plan Element	*2010*	*2020*	*2030*	*2040*	*2050*	*2060*
Projected Shortage (acft/yr)	(48)	(61)	(68)	(66)	(66)	(69)
Purchase water from the City of Clifton						
Quantity Available (acft/yr)	80	80	80	80	80	80
Annual Cost ($/yr)	$212,000	$212,000	$212,000	$212,000	$212,000	$212,000
Unit Cost ($/acft)	$2,650	$2,650	$2,650	$2,650	$2,650	$2,650

4C.3 Brazos County Water Supply Plan

Table 4C.3-1 lists each water user group in Brazos County and their corresponding surplus or shortage in years 2030 and 2060. For each water user group with a projected shortage, a water supply plan has been developed and is presented in the following subsections.

Table 4C.3-1.
Brazos County Surplus/(Shortage)

Water User Group	*Surplus/(Shortage)*[1]		*Comment*
	2030 (acft/yr)	*2060 (acft/yr)*	
City of Bryan	927	(1,341)	Projected shortage – see plan below
City of College Station	(5,603)	(11,166)	Projected shortage – see plan below
Wellborn SUD	3,692	3,288	Projected surplus
Wickson Creek SUD	(1,160)	(2,116)	Projected shortage – see plan below
County-Other	390	588	Projected surplus
Manufacturing	(96)	(232)	Projected shortage – see plan below
Steam-Electric	276	0	Projected surplus
Mining	0	0	No projected needs
Irrigation	47,653	48,216	Projected surplus
Livestock	0	0	No projected needs

[1] From Tables C-5 and C-6, Appendix C – Comparison of Water Demands with Water Supplies to Determine Needs.

4C.3.1 City of Bryan

4C.3.1.1 Description of Supply

- Source: Sparta and Carrizo-Wilcox Aquifers
- Estimated Reliable Supply: 15,152 acft/yr
- System Description: Wells located in the Sparta and Carrizo-Wilcox Aquifers

4C.3.1.2 Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended to meet the projected shortage of the City of Bryan:

- Wastewater Reuse; and
- Additional Carrizo-Wilcox Aquifer Development.

4C.4.6 Steam-Electric

No Steam-Electric demand exists or is projected for the county.

4C.4.7 Mining

Mining water use category shows a projected surplus and no changes in water supply are recommended.

4C.4.8 Irrigation

4C.4.8.1 Description of Supply

- Source: Groundwater from Brazos River Alluvium Aquifer and run-of-river rights.
- Estimated Reliable Supply: 11,091 acft/yr in 2060

4C.4.8.2 Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended to meet the projected shortage of Burleson County Irrigation:

- Conservation, and
- Additional Carrizo-Wilcox Aquifer Development.

4C.4.8.3 Costs

Costs of the recommended plan for Burleson County Irrigation to meet the projected shortages are:

a. Conservation:
   - Cost Source: Volume II, Section 4B.2
   - Date to be Implemented: 2010
   - Unit Cost: $160/acft of water saved
   - Annual Cost: $179,840 in 2030

b. Additional Carrizo-Wilcox Aquifer Development:
   - Date to be Implemented: By year 2010
   - Total Project Cost: $8,718,000
   - Annual Cost: $825,000

   The project cost includes seven 1,000 gpm wells drilled to a depth of 2,500 feet in the Carrizo-Wilcox Aquifer.

Table 4C.4-4.
Recommended Plan Costs by Decade for Burleson County Irrigation

Plan Element	*2010*	*2020*	*2030*	*2040*	*2050*	*2060*
Projected Shortage (acft/yr)	(4,720)	(4,348)	(3,993)	(3,677)	(3,326)	(2,991)
Conservation						
Quantity Available (acft/yr)	524	837	1,124	1,080	1,032	986
Annual Cost ($/yr)	$83,840	$133,920	$179,840	$172,800	$165,120	$157,760
Unit Cost ($/acft)	$160	$160	$160	$160	$160	$160
Additional Carrizo-Wilcox Aquifer Development						
Quantity Available (acft/yr)	5,000	5,000	5,000	5,000	5,000	5,000
Annual Cost ($/yr)	$825,000	$825,000	$825,000	$825,000	$825,000	$825,000
Unit Cost ($/acft)	$165	$165	$165	$165	$165	$165

4C.4.9 Livestock

Livestock water use category shows no projected need and no changes in water supply are recommended.

4C.5 Callahan County Water Supply Plan

Table 4C.5-1 lists each water user group in Callahan County and their corresponding surplus or shortage in years 2030 and 2060. For each water user group with a projected shortage, a water supply plan has been developed and is presented in the following subsections.

Table 4C.5-1.
Callahan County Surplus/(Shortage)

Water User Group	*Surplus/(Shortage)*[1]		*Comment*
	2030 (acft/yr)	*2060 (acft/yr)*	
City of Baird	145	154	Projected surplus
City of Clyde	339	375	Projected surplus
Coleman County WSC	(64)	(44)	Projected shortage – see plan below
City of Cross Plains	272	278	Projected surplus
County-Other	204	261	Projected surplus
Manufacturing	0	0	No demand or supply
Steam-Electric	0	0	No demand or supply
Mining	0	0	No demand or supply
Irrigation	25	25	Projected surplus
Livestock	0	0	No demand or supply

[1] From Tables C-9 and C-10, Appendix C – Comparison of Water Demands with Water Supplies to Determine Needs.

4C.5.1 City of Baird

The City of Baird obtains its water supply from surface water supplied from Lake Baird and from the City of Abilene. From 2000 through 2060, the City's contractual purchase from the City of Abilene is 138 acft/yr and the total amount of surface water availability from Lake Baird is 385 acft/yr. Baird also receives reuse water from the City of Clyde in trade for potable water. No shortages are projected for the City of Baird and no changes in water supply are recommended.

4C.5.2 City of Clyde

The City of Clyde uses surface water from local sources which is projected to supply 500 acft/yr from 2000 through 2060. Clyde also has a contractual purchase plan of 307 acft/yr from the City of Abilene that can cover the city's projected demands. Clyde also has an arrangement with City of Baird to receive potable water in trade for reuse water. No current or future shortages are projected. Clyde also has contractual sales to Eula WSC of 221 acft/yr through 2060. No change in water supply uses are projected or recommended.

4C.5.3 Coleman County WSC

4C.5.3.1 Description of Supply

Coleman County WSC obtains its water supply from the City of Coleman via Lake Coleman. Coleman County WSC is projected to have a maximum shortage of 71 acft/yr in 2020.

4C.5.3.2 Water Supply Plan

After implementation of a subordination strategy developed jointly by Region F and the Lower Colorado Region (see Region F and Region K Regional plans for a description of this strategy), the available supply from Lake Coleman increases by approximately 8,000 acft/yr and the previously existing shortages disappear. Conservation was also considered; however, the current per capita use rate is below the selected target rate of 140 gpcd.

4C.5.3.3 Costs

Since the available supply from Lake Coleman increases, there are no costs involved.

Table 4C.5-2.
Recommended Plan Costs by Decade for Coleman County WSC

Plan Element	*2010*	*2020*	*2030*	*2040*	*2050*	*2060*
Projected Surplus/(Shortage) (acft/yr)	(68)	(71)	(64)	(57)	(50)	(44)
Water Supply from City of Coleman						
Supply From Plan Element (acft/yr)	68	71	64	57	50	44
Annual Cost ($/yr)	0	0	0	0	0	0
Unit Cost ($/acft)	0	0	0	0	0	0

4C.7 Coryell County Water Supply Plan

Table 4C.7-1 lists each water user group in Coryell County and their corresponding surplus or shortage in years 2030 and 2060. For each water user group with a projected shortage, a water supply plan has been developed and is presented in the following subsections.

Table 4C.7-1.
Coryell County Surplus/(Shortage)

Water User Group	*Surplus/(Shortage)*[1]		*Comment*
	2030 (acft/yr)	*2060 (acft/yr)*	
City of Copperas Cove	3,179	2,260	Projected surplus
Fort Gates	0	0	No projected needs
City of Gatesville	176	(1,232)	Projected shortage – see plan below
Kempner WSC	3,153	1,974	Projected surplus
County-Other	(2,103)	(2,776)	Projected shortage – see plan below
Manufacturing	3	0	Projected surplus
Steam-Electric	0	0	No projected needs
Mining	0	0	No projected needs
Irrigation	1,739	1,739	Projected surplus
Livestock	0	0	No projected needs

[1] From Tables C-13 and C-14, Appendix C – Comparison of Water Demands with Water Supplies to Determine Needs.

4C.7.1 City of Copperas Cove

No shortages are projected for the City of Copperas Cove and no changes in water supply are recommended.

4C.7.2 Fort Gates WSC

No shortages are projected for Fort Gates WSC and no changes in water supply are recommended.

4C.7.4 City of Gatesville

4C.7.4.1 Description of Supply

- Source: Surface Water – From Lake Belton
- Estimated Reliable Supply: 4,931 acft/yr in 2060

4C.15 Hill County Water Supply Plan

Table 4C.15-1 lists each water user group in Hill County and their corresponding surplus or shortage in years 2030 and 2060. For each water user group with a projected shortage, a water supply plan has been developed and is presented in the following subsections. Water supply plans are also presented for some entities that need pumping/conveyance facilities to utilize their existing water resources, or to become a regional provider.

Table 4C.15-1.
Hill County Surplus/(Shortage)

Water User Group	*Surplus/(Shortage)*[1]		*Comment*
	2030 (acft/yr)	*2060 (acft/yr)*	
Brandon-Irene WSC	51	(92)	Projected shortage – see plan below
Files Valley WSC	323	32	Projected surplus
City of Hillsboro	1,283	(20)	Projected shortage – see plan below
City of Hubbard	0	0	No projected needs
City of Itasca	34	44	Projected surplus
Lake Whitney Water Co.	33	29	Projected surplus
White Bluff Community WS	(341)	(663)	Projected shortage – see plan below
City of Whitney	39	10	Projected surplus – see plan below
Woodrow-Osceola WSC	(119)	(154)	Projected shortage – see plan below
County-Other	624	399	Projected surplus
Manufacturing	(21)	(53)	Projected shortage – see plan below
Steam-Electric	0	0	No projected demands
Mining	0	0	No projected needs
Irrigation	1,004	1,005	Projected surplus
Livestock	0	0	No projected needs

[1] From Tables C-29 and C-30, Appendix C – Comparison of Water Demands with Water Supplies to Determine Needs.

4C.15.1 Brandon-Irene WSC

4C.15.1.1 Description of Supply

- Source: Groundwater – Trinity Aquifer; Surface water – purchase from Aquilla WSD
- Estimated Reliable Supply: 181 acft/yr in 2060

4C.15.1.2 Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended to meet the projected shortage of Brandon-Irene WSC:

- BRA System Operation.
- Conservation was also considered; however, the WSC's current per capita use rate is below the selected target rate of 140 gpcd.

4C.15.1.3 Costs

Costs of the Recommended Plan for Brandon-Irene WSC.

a. BRA System Operation:
   - Cost Source: Strategy Evaluation (Section 4B.4)
   - Date to be Implemented: By year 2050
   - Annual Cost: $235,500

Table 4C.15-2.
Recommended Plan Costs by Decade for Brandon-Irene WSC

Plan Element	*2010*	*2020*	*2030*	*2040*	*2050*	*2060*
Projected Surplus/(Shortage) (acft/yr)	104	77	51	25	(6)	(92)
BRA System Operation						
Supply From Plan Element (acft/yr)	—	—	—	—	100	100
Annual Cost ($/yr)					$235,500	$235,500
Unit Cost ($/acft)					$2,355	$2,355

4C.15.2 Files Valley WSC

Files Valley WSC obtains its water supply from the Aquilla Water Supply District (WSD). Aquilla WSD has contracted with the Brazos River Authority for surface water from Lake Aquilla and diverts, treats, and delivers water to Files Valley WSC. The existing facilities are adequate to supply the needs of Files Valley WSC through the year 2060. No change in water supply is recommended.

4C.17.16 City of Venus

The City of Venus obtains its water supply from groundwater from the Woodbine Aquifer and surface water from the City of Midlothian. The city has a sufficient quantity of water supply to meet its projected needs through the year 2060. No shortage is projected for the City of Venus and no changes in water supply are recommended.

4C.17.17 County-Other

4C.17.17.1 Description of Supply

Johnson County-Other obtains its water supply primarily from groundwater from the Trinity Aquifer. Based on the available groundwater supply, Johnson County-Other is projected to have a shortage of 2,516 acft/yr in the year 2030 and 2,977 acft/yr in the year 2060.

4C.17.17.2 Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended to meet the projected shortage of Johnson County-Other:

- Conservation, and
- Purchase water from Johnson County SUD. This will require Johnson County SUD to implement recommended water management strategies to meet demand.

4C.17.17.3 Costs

Costs of the recommended plan for Johnson County-Other to meet the projected shortages are:

a. Conservation:
   - Cost Source: Volume II, Section 4B.2.1
   - Date to be Implemented: before 2010
   - Annual Cost: maximum of $79,040 in 2020

b. Purchase water from Johnson County SUD:
   - Cost Source: Based on unit costs from Section 4B.11.1 (Reuse through Joe Pool Reservoir)
   - Date to be Implemented: before 2010
   - Unit Cost: $617/acft
   - Annual Cost: $1,680,091

Table 4C.17-15.
Recommended Plan Costs by Decade for Johnson County-Other

Plan Element	*2010*	*2020*	*2030*	*2040*	*2050*	*2060*
Projected Surplus/(Shortage) (acft/yr)	(2,323)	(2,418)	(2,516)	(2,623)	(2,775)	(2,977)
Conservation						
Supply From Plan Element (acft/yr)	87	208	190	171	166	175
Annual Cost ($/yr)	$33,060	$79,040	$72,200	$64,980	$63,080	$66,500
Unit Cost ($/acft)	$380	$380	$380	$380	$380	$380
Purchase water from Johnson County SUD						
Supply From Plan Element (acft/yr)	2,236	2,210	2,326	2,452	2,609	2,723
Annual Cost ($/yr)	$1,379,512	$1,363,570	$1,435,142	$1,512,884	$1,609,753	$1,680,091
Unit Cost ($/acft)	$617	$617	$617	$617	$617	$617

4C.17.18 Manufacturing

4C.17.18.1 Description of Supply

Johnson County Manufacturing obtains its water supply primarily from groundwater from the Trinity Aquifer. Based on the available groundwater supply, Johnson County Manufacturing is projected to have a shortage of 2,546 acft/yr in the year 2030 and 3,639 acft/yr in the year 2060.

4C.17.18.2 Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended to meet the projected shortage of Johnson County Manufacturing:

- Conservation, and
- Purchase reuse water from the City of Cleburne.
- Alternative strategy considered was purchase of water from BRA System.

4C.17.18.3 Costs

Costs of the recommended plan for Johnson County Manufacturing to meet the projected shortages are:

4C.26.3.2 Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG, the following water supply plan is recommended to meet the projected shortages for the County-Other entities:

- Purchase additional water supply from Sweetwater
- Conservation was also considered; however, the County-Other's current per capita use rate is below the selected target rate of 140 gpcd.

4C.26.3.3 Costs

Cost of the Recommended Plan for Manufacturing:

a. Water Supply from Sweetwater:

- Cost Source: Assumed wholesale rate for treated water
- Date to be Implemented: 2010
- Total Project Cost: none (existing infrastructure assumed adequate)
- Annual Cost: $23,000

Table 4C.26-4.
Recommended Plan Costs by Decade for Nolan County-Other

Plan Element	*2010*	*2020*	*2030*	*2040*	*2050*	*2060*
Projected Surplus/(Shortage) (acft/yr)	(31)	(30)	(27)	(21)	(13)	(4)
Water Supply from Sweetwater						
Supply From Plan Element (acft/yr)	50	50	50	50	50	50
Annual Cost ($/yr)	$23,000	$23,000	$23,000	$23,000	$23,000	$23,000
Unit Cost ($/acft)	$461	$461	$461	$461	$461	$461

4C.26.4 Manufacturing

4C.26.4.1 Description of Supply

The current water supply is supplied from the Edwards-Trinity (Plateau) Aquifer and the City of Sweetwater. The projected demands will exceed the current supplies by 2050.

4C.31 Stephens County Water Supply Plan

Table 4C.31-1 lists each water user group in Stephens County and their corresponding surplus or shortage in years 2030 and 2060. For each water user group with a projected shortage, a water supply plan has been developed and is presented in the following subsections.

Table 4C.31-1.
Stephens County Surplus/(Shortage)

Water User Group	*Surplus/(Shortage)*[1]		*Comment*
	2030 (acft/yr)	*2060 (acft/yr)*	
City of Breckenridge	1,389	1,487	Projected surplus
Stephens County Rural WSC	917	960	Projected surplus
County-Other	(216)	(193)	Projected shortage –see plan below
Manufacturing	53	50	Projected surplus
Steam-Electric	0	0	No demand or supply
Mining	(5,884)	(6,662)	Projected shortage –see plan below
Irrigation	51	56	Projected surplus
Livestock	0	0	Supply equals demand
Livestock	0	0	Supply equals demand

[1] From Tables C-61 and C-62, Appendix C – Comparison of Water Demands with Water Supplies to Determine Needs.

4C.31.1 The City of Breckenridge

The City of Breckenridge obtains water from Hubbard Creek Reservoir through the West Central Texas Municipal Water District and from Lake Daniel. No future shortages are projected; however an alternative strategy consisting of purchasing water from the WCBDS would supplement current contracted supplies.

4C.31.2 Stephens County Rural WSC

4C.31.2.1 Description of Supply

The current supply comes from the Lake Daniel and Hubbard Creek Reservoir through the City of Breckenridge.

4C.31.2.2 Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG, the following water supply plan is recommended to meet the projected needs of Stephens Co Rural WSC:

- Purchase additional supply from WCBDS.
- Conservation was also considered; however, current per capita use rate is below the selected target rate of 140 gpcd.

4C.31.2.3 Costs

Cost of the Recommended Plan for Stephens Co Rural WSC.

a. Water Supply from WCBDS (with regional WTP):

- Cost Source: *West Central Brazos River Basin Regional Water Treatment and Distribution Facility Plan*, Freese and Nichols, 2004.
- Date to be Implemented: 2010
- Total Project Cost: $15,877,792
- Annual Cost: $1,800,000 (total project)
  $514,400 (Stephens Co Rural WSC portion)

Table 4C.31-2.
Recommended Plan Costs by Decade for the Stephens County Rural WSC

Plan Element	*2010*	*2020*	*2030*	*2040*	*2050*	*2060*
Projected Surplus/(Shortage) (acft/yr)	906	911	917	934	952	960
Water Supply from WCBDS						
Supply From Plan Element (acft/yr)	400	400	400	400	400	400
Annual Cost ($/yr)	$514,400	$514,400	$514,400	$514,400	$514,400	$514,400
Unit Cost ($/acft)	$1,286	$1,286	$1,286	$1,286	$1,286	$1,286

4C.31.3 County-Other

4C.31.3.1 Description of Supply

The current supply comes from groundwater. The projected demands will exceed current supplies.

Table 4C.33-2,
Component Costs for West Central Brazos System Optimization Plan

System Component	*Total Cost*	*Annual Cost*	*Initial Supply Contributed (acft/yr)*
Breckenridge Reservoir with reuse and priority calls agreement with BRA	$82,755,000	$6,257,000	34,520[1]
Clear Fork Scalping into Hubbard Creek Reservoir with priority calls agreement with BRA	$115,300,000	$10,081,000	7,000
Priority Calls Agreements with BRA for Hubbard Creek Reservoir and Fort Phantom Him Reservoir Scalping (costs for Possum Kingdom Reservoir Impacts – 10,000 acft at $45.75/acft)	$0	$457,500	17,630
Total	**$198,055,000**	**$16,795,500**	**59,150**

[1] Includes 5,600 acft/yr of additional yield provided by Abilene's existing return flows.

Table 4C.33-3.
Recommended Plan Costs by Decade for the City of Abilene

Plan Element	*2010*	*2020*	*2030*	*2040*	*2050*	*2060*
Projected Surplus/(Shortage) (acft/yr)	(13,087)	(13,871)	(14,071)	(13,920)	(13,487)	(12,973)
Conservation						
Supply From Plan Element (acft/yr)	977	2,042	1,636	1,196	1,026	994
Annual Cost ($/yr)	$371,260	$775,960	$621,680	$454,480	$389,880	$377,720
Unit Cost ($/acft)	$380	$380	$380	$380	$380	$380
Water Supply from WCBSOP[1]						
Supply From Plan Element (acft/yr)	25,575	25,575	25,575	25,575	25,575	25,575
Annual Cost ($/yr)	$7,263,300	$7,263,300	$7,263,300	$7,263,300	$7,263,300	$7,263,300
Unit Cost ($/acft)	$284	$284	$284	$284	$284	$284

[1]Costs and supply from WCBSOP are assumed to be split equally between Abilene and the WCTMWD (see Table 4C.38-10).

4C.33.2 City of Merkel

4C.33.2.1 Description of Supply

The City of Merkel obtains surface water from local sources and from the City of Abilene.

4C.34 Throckmorton County Water Supply Plan

Table 4C.34-1 lists each water user group in Throckmorton County and their corresponding surplus or shortage in years 2030 and 2060. For each water user group with a projected shortage, a water supply plan has been developed and is presented in the following subsections.

Table 4C.34-1.
Throckmorton County Surplus/(Shortage)

Water User Group	*Surplus/(Shortage)*[1]		*Comment*
	2030 (acft/yr)	*2060 (acft/yr)*	
City of Throckmorton	116	157	Projected surplus
County-Other	16	34	Projected surplus
Manufacturing	0	0	No demand or supply
Steam-Electric	0	0	No demand or supply
Mining	0	0	Supply equals demand
Irrigation	(3,988)	(3,988)	Projected shortage
Livestock	0	0	Supply equals demand

[1] From Tables C-67 and C-68, Appendix C – Comparison of Water Demands with Water Supplies to Determine Needs.

4C.34.1 City of Throckmorton

4C.34.1.1 Description of Supply

The City of Throckmorton obtains water from Lake Throckmorton and Ft. Belknap WSC which shows a projected surplus. Since the city's supply is solely Lake Throckmorton, an alternate source is desired in case of severe drought.

4C.34.1.2 Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG, the following water supply plan is recommended for the City of Throckmorton:

- Conservation, and
- Purchase additional supply from WCBDS.

4C.34.2 County-Other

The Throckmorton County-Other shows a projected surplus and no changes in water supply are recommended.

4C.34.3 Manufacturing

No Manufacturing demand exists or is projected for the county.

4C.34.4 Steam-Electric

No Steam-Electric demand exists or is projected for the county.

4C.34.5 Mining

No Mining shortages are projected and no changes in water supply system are recommended.

4C.34.6 Irrigation

4C.34.6.1 Description of Supply

- Source: Clear Fork of the Brazos River.
- Estimated Reliable Supply: 12 acft/yr in 2060

4C.34.6.2 Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended to meet the projected shortage of Throckmorton County Irrigation:

- Long-term supplies from the West Central Brazos System Optimization Plan (WCBSOP). Unappropriated flows of the Clear Fork of the Brazos River and/or City of Abilene return flows would be used temporarily in conjunction with off-channel storage until the Breckenridge Reservoir (Cedar Ridge site) portion of the WCBSOP is constructed. Water rights obtained by local irrigators through this strategy would become part of the WCBSOP when the WCBSOP is implemented. See Section 4C.33.1.2 for a complete description of the WCBSOP.
- Conservation was also considered; however, this is would be an entirely new irrigation system and would utilize the most water-efficient irrigation technologies that are economically feasible.

Table 4C.38-9
Component Costs for West Central Brazos System Optimization Plan

System Component	*Total Cost*	*Annual Cost*	*Initial Supply Contributed (acft/yr)*
Breckenridge Reservoir with reuse and priority calls agreement with BRA	$82,755,000	$6,257,000	34,520[1]
Clear Fork Scalping into Hubbard Creek Reservoir with priority calls agreement with BRA	$115,300,000	$10,081,000	7,000
Priority Calls Agreements with BRA for Hubbard Creek Reservoir and Fort Phantom Him Reservoir Scalping (costs for Possum Kingdom Reservoir Impacts – 10,000 acft at $45.75/acft)	$0	$457,500	17,630
Total	$198,055,000	$16,795,500	59,150

[1]Includes 5,600 acft/yr of additional yield provided by Abilene's existing return flows.

Table 4C.38-10.
Recommended Plan Costs by Decade for the West Central Texas MWD

Plan Element	*2010*	*2020*	*2030*	*2040*	*2050*	*2060*
Projected Surplus/(Shortage) (acft/yr)	(10,523)	(10,638)	(10,753)	(10,868)	(10,983)	(11,098)
Water Supply from West Central Brazos System Optimization Plan[1]						
Supply From Plan Element (acft/yr)	25,575	25,575	25,575	25,575	25,575	25,575
Annual Cost ($/yr)	$7,263,300	$7,263,300	$7,263,300	$7,263,300	$7,263,300	$7,263,300
Unit Cost ($/acft)	$284	$284	$284	$284	$284	$284

[1]Costs and supply from WCBSOP are split equally between WCTMWD and City of Abilene (see Table 4C.33-3).

4C.38.12 North Central Texas Municipal Water District

4C.38.12.1 Description of Supply

North Central Texas MWD obtains its water supply from Millers Creek Reservoir. Based on the available surface water supply, North Central Texas MWD is projected to have a shortage of 969 acft/yr in the year 2030 and a shortage of 1,319 acft/yr in the year 2060.

Table 4C.39-1.
Summary of Recommended Water Management Strategies Involving New Sources of Supply in the 2006 Brazos G Regional Water Plan (continued)

Strategy	*WUG or WWP*	*New Supply by 2060 (acft/yr)*	*Total Project Cost (2nd Quarter 2002 Prices)*
New Reservoirs			
Wheeler Branch Off-Channel Reservoir	Somervell County - Other	1,800	$27,195,000
Brushy Creek Reservoir	City of Marlin	2,000	$6,301,610
Total New Reservoirs		**3,800**	**$33,496,610**
Systems Approaches			
West Central Brazos System Optimization Plan	City of Abilene	59,150	$198,055,000
	West Central Texas Municipal Water District		
	Irrigation – Throckmorton County		
BRA System Operation (Excluding Lake Granger Augmentation)	Bell County WCID #1	3,500	$0
	Bosque County – Other	475	
	Manufacturing – Bosque County	1,300	$25,492,000
	Steam-Electric – Bosque County	8,225	
	Brandon-Irene WSC	100	
	City of Hillsboro	100	
	White Bluff Community WS	700	$36,151,000
	Woodrow-Osceola WSC	200	
	Manufacturing – Hill County	100	
	Steam-Electric – Limestone County	16,000	ND
	Other Needs to be Met from BRA System Operation[3]	234,373	ND
Total from Systems Approaches		**324,223**	**> $259,698,000**
Groundwater Development			
Brackish Groundwater	Mining - Nolan County	200	$268,188
Champion Well Field Phases 1 & 2	City of Sweetwater	736	$17,060,471
Carrizo-Wilcox Aquifer – Lee and Milam Counties [BRA System Operation (Lake Granger Augmentation)]	Williamson County entities, see BRA System Operation (Lake Granger Augmentation) (above)	28,263[2]	–
Carrizo-Wilcox Aquifer – Brazos County	City of Bryan	15,300	$33,380,000
	City of College Station		
	Wickson Creek SUD		
	Brazos County – Manufacturing		
Carrizo-Wilcox Aquifer – Burleson County	Manufacturing – Burleson County	150	$124,624 (Annual)
	Irrigation – Burleson County	5,000	$8,718,000

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Table 4C.39-1.
Summary of Recommended Water Management Strategies Involving New Sources of Supply in the 2006 Brazos G Regional Water Plan (concluded)

Strategy	*WUG or WWP*	*New Supply by 2060 (acft/yr)*	*Total Project Cost (2^{nd} Quarter 2002 Prices)*
Carrizo Wilcox Aquifer – Falls County	Falls County – Other	300	$1,376,000
Carrizo-Wilcox Aquifer – Lee County	Aqua WSC	300	$1,047,000
	City of Giddings	400	$2,099,000
	Lee County WSC	750	$1,762,000
	City of Hutto	1,680	$1,927,000 (Annual)
Carrizo-Wilcox Aquifer – Limestone County	City of Groesbeck	100	$566,000
	Manufacturing – Limestone County	100	$566,000
Carrizo-Wilcox Aquifer – Milam County	Southwest Milam WSC	600	$2,079,000
	Steam-Electric – Milam County	8,200	$3,923,000
	City of Hutto	1,680	$1,927,000 (Annual)
Carrizo-Wilcox Aquifer – Robertson County	Robertson County (Manufacturing)	85	$707,000
Trinity Aquifer – Coryell County	Coryell County – Other	1,200	$4,821,000
Trinity Aquifer – Erath County	Manufacturing – Erath County	50	$198,000
Trinity Aquifer – Falls County	Falls County – Other	300	$1,376,000
Trinity Aquifer – Lampasas County	Lampasas County – Other	850	$2,576,000
Trinity Aquifer – Williamson County	City of Florence	250	$803,500
Gulf Coast Aquifer – Grimes County	Manufacturing – Grimes County	250	$312,000
Total Groundwater Development		**66,444**	**> $86,116,159**
Total New Supplies		**590,426**	**> $1,030,366,769**

1. Not Determined.
2. The Lake Granger Augmentation includes development of an average annual supply of groundwater from the Carrizo-Wilcox Aquifer of 28,263 acft/yr to develop the total new supply of 54,390 acft/yr (Volume II, Section 4B.5).
3. Includes additional BRA contractual commitments not specifically identified in Section 4B.4. Does not include Region H supplies, but does include minor increases to Region C.

The adopted groundwater availability estimates by county follow:

Carrizo-Wilcox Aquifer

County	*Groundwater Availability Estimates (acft/yr)*
Brazos	53,000
Burleson	44,000
Falls	1,000
Grimes	5,000
Lee	45,000
Limestone	20,000
Milam	45,000
Robertson	37,000
Total	251,000

In comparison, the estimates in the TWDB 1997 Water Plan was 278,840 acft/yr; and, the estimates in the 2001 Brazos G regional water plan was 280, 936 acft/yr.

The calculated water levels in 2060 in the central region of the Carrizo-Wilcox Aquifer for the Carrizo and Simsboro are shown in Figure B-1 for constant pumping rates at the groundwater availability estimates from 2000 to 2060. The calculated drawdown for the Carrizo and Simsboro from year 2000 to 2060 at these pumping rates are shown in Figure B-2 Drawdown hydrographs at selected locations in the two aquifers with regional pumping at 33, 80, and 100 percent of the availability estimates are shown in Figure B-3.

Well Yields

Wide variations occur in individual well yields obtainable from the four Carrizo-Wilcox zones, depending on area, depth, and local sand thickness. Estimated ranges for maximum individual well yields are 500 to 2,000 gpm for the Carrizo, 100 to 300 gpm for the Calvert Bluff, 500 to 3,000 gpm for the Simsboro, and 100 to 300 gpm for the Hooper. The variation in yields depends on well efficiency, sand thickness, sand character, and available drawdown.

Water Quality

Water generally meets drinking water standards, but local exceptions occur. Excessive iron concentrations are the most common water quality problem, and some water supplies must be treated. Hydrogen sulfide and methane occurrences are reported occasionally. Water obtained near the outcrops of the water-bearing zones generally are higher in hardness and lower in total dissolved solids content. In downdip areas the water is commonly a sodium-bicarbonate-type water, with total dissolved solids content ranging from about 300 to 800 mg/L and averaging 400 to 500 mg/L. The mapped extent of fresh and slightly saline water in the Simsboro and Carrizo are shown in Figures B-1 and B-2. These zones are the most prolific within the Carrizo-Wilcox and each contains fresh water over large areas and to depths as great as about 3,000 feet. As shown in Figures B-1 and B-2, the dissolved solid concentrations are greater at the downdip limit of the aquifer.

Resource Considerations

Few development problems have occurred to date, and water-level declines have been relatively small or restricted to local pumping centers near larger developments. No important pollution problems are evident. Local plans are available for the Bryan-College Station area indicating future ground water needs.

There are three groundwater conservation districts that oversee the development and management of the Carrizo-Wilcox Aquifer within the BGRWPA. These include the Lost Pines Groundwater Conservation District (Bastrop and Lee Counties), Brazos Valley Groundwater Conservation District (Robertson and Brazos Counties), and the Post Oak Savannah GCD (Milam and Burleson Counties).

References

Dutton, A.R., 1999, Assessment of groundwater availability in the Carrizo-Wilcox Aquifer in Central Texas--Results of numerical simulations of six groundwater-withdrawal projections (2000-2050), The University of Texas at Austin, Bureau of Economic Geology.

Dutton, A.R. and Others, 2002, Groundwater Availability Model for the Central Part of the Carrizo-Wilcox Aquifer in Texas: TWDB Contract Report.

Table C-1
Bell County
Population, Water Supply, and Water Demand Projections

Population Projection	Year						
	2000	2010	2020	2030	2040	2050	2060
	237,974	279,313	315,766	351,336	381,839	408,408	432,418

	Supply and Demand by Type of Use	Year						
		2000 (acft)	2010 (acft)	2020 (acft)	2030 (acft)	2040 (acft)	2050 (acft)	2060 (acft)
Municipal	Municipal Demand	48,665	58,295	67,750	73,914	78,782	83,127	87,372
	Municipal Existing Supply							
	Groundwater	2,242	2,239	2,238	2,236	2,235	2,234	2,233
	Surface water	101,979	101,568	101,416	101,262	101,088	100,907	100,722
	Total Existing Municipal Supply	104,221	103,807	103,654	103,498	103,323	103,141	102,955
	Municipal Balance	55,556	45,512	35,904	29,584	24,541	20,014	15,583
Industrial	Manufacturing Demand	800	980	1,085	1,180	1,273	1,355	1,463
	Manufacturing Existing Supply							
	Groundwater	17	17	17	17	17	17	17
	Surface water	0	0	0	0	0	0	0
	Total Manufacturing Supply	17	17	17	17	17	17	17
	Manufacturing Balance	(783)	(963)	(1,068)	(1,163)	(1,256)	(1,338)	(1,446)
	Steam-Electric Demand	0	0	3,674	4,296	5,053	5,977	7,102
	Steam-Electric Existing Supply							
	Groundwater	0	0	0	0	0	0	0
	Surface water	8,762	8,762	8,762	8,762	8,762	8,762	8,762
	Total Steam-Electric Supply	8,762	8,762	8,762	8,762	8,762	8,762	8,762
	Steam-Electric Balance	8,762	8,762	5,088	4,466	3,709	2,785	1,660
	Mining Demand	174	155	150	147	144	141	139
	Mining Existing Supply							
	Groundwater	174	155	150	147	144	141	139
	Surface water	2	2	2	2	2	2	2
	Total Mining Supply	176	157	152	149	146	143	141
	Mining Balance	2	2	2	2	2	2	2
Agriculture	Irrigation Demand	1,679	1,656	1,634	1,611	1,591	1,569	1,546
	Irrigation Existing Supply							
	Groundwater	215	212	209	206	204	201	198
	Surface water	5,730	5,743	5,755	5,768	5,780	5,793	5,805
	Total Irrigation Supply	5,945	5,955	5,964	5,974	5,984	5,994	6,003
	Irrigation Balance	4,266	4,299	4,330	4,363	4,393	4,425	4,457
	Livestock Demand	953	953	953	953	953	953	953
	Livestock Existing Supply							
	Groundwater	0	0	0	0	0	0	0
	Surface water	953	953	953	953	953	953	953
	Total Livestock Supply	953	953	953	953	953	953	953
	Livestock Balance	0	0	0	0	0	0	0
Total	Municipal & Industrial Demand	49,639	59,430	72,659	79,537	85,252	90,600	96,076
	Existing Municipal & Industrial Supply							
	Groundwater	2,433	2,411	2,405	2,400	2,396	2,392	2,389
	Surface water	110,743	110,332	110,181	110,027	109,853	109,671	109,486
	Total Municipal & Industrial Supply	113,176	112,743	112,586	112,427	112,249	112,063	111,875
	Municipal & Industrial Balance	63,537	53,313	39,927	32,890	26,997	21,463	15,799
	Agriculture Demand	2,632	2,609	2,587	2,564	2,544	2,522	2,499
	Existing Agricultural Supply							
	Groundwater	215	212	209	206	204	201	198
	Surface water	6,683	6,696	6,708	6,721	6,733	6,746	6,758
	Total Agriculture Supply	6,898	6,908	6,917	6,927	6,937	6,947	6,956
	Agriculture Balance	4,266	4,299	4,330	4,363	4,393	4,425	4,457
	Total Demand	52,271	62,039	75,246	82,101	87,796	93,122	98,575
	Total Supply							
	Groundwater	2,648	2,623	2,614	2,606	2,600	2,593	2,587
	Surface water	117,426	117,028	116,889	116,747	116,586	116,417	116,244
	Total Supply	120,074	119,651	119,503	119,353	119,186	119,010	118,831
	Total Balance	67,803	57,612	44,257	37,252	31,390	25,888	20,256

Table C-2
Brazos G Regional Water Planning Area
Municipal Water Demand & Supply By City/County
(acft)

City/County	2000	2010	2020	2030	2040	2050	2060
Bell County							
439 WSC							
Demand	649	803	909	999	1,057	1,090	1,122
Supply	2,159	2,156	2,151	2,148	2,143	2,140	2,136
Groundwater	-	-	-	-	-	-	-
Surface water	2,159	2,156	2,151	2,148	2,143	2,140	2,136
Balance	1,510	1,353	1,242	1,149	1,086	1,050	1,014
BARTLETT (P)							
Demand	165	184	196	206	211	216	220
Supply	121	121	121	121	121	121	121
Groundwater	121	121	121	121	121	121	121
Surface water	-	-	-	-	-	-	-
Balance	(44)	(63)	(75)	(85)	(90)	(95)	(99)
BELL-MILAM FALLS WSC							
Demand	299	342	371	398	415	425	435
Supply	359	359	359	359	359	359	359
Groundwater	163	163	163	163	163	163	163
Surface water	196	196	196	196	196	196	196
Balance	60	17	(12)	(39)	(56)	(66)	(76)
BELTON							
Demand	2,412	2,824	3,199	3,542	3,723	3,875	3,920
Supply	7,466	7,452	7,439	7,425	7,411	7,397	7,384
Groundwater	-	-	-	-	-	-	-
Surface water	7,466	7,452	7,439	7,425	7,411	7,397	7,384
Balance	5,054	4,628	4,240	3,883	3,688	3,522	3,464
CHISHOLM TRAIL SUD							
Demand	56	103	127	149	166	176	183
Supply	232	230	230	229	228	228	227
Groundwater	46	45	45	44	44	44	43
Surface water	186	185	185	185	184	184	184
Balance	176	127	103	80	62	52	44
DOG RIDGE WSC							
Demand	586	715	799	876	926	955	982
Supply	671	671	671	671	671	671	671
Groundwater	-	-	-	-	-	-	-
Surface water	671	671	671	671	671	671	671
Balance	85	(44)	(128)	(205)	(255)	(284)	(311)
EAST BELL COUNTY WSC							
Demand	250	263	271	276	279	282	286
Supply	368	368	368	368	368	368	368
Groundwater	133	133	133	133	133	133	133
Surface water	235	235	235	235	235	235	235
Balance	118	105	97	92	89	86	82
ELM CREEK WSC							
Demand	154	184	206	224	236	243	249
Supply	43	43	43	43	43	43	43
Groundwater	6	6	6	6	6	6	6
Surface water	37	37	37	37	37	37	37
Balance	(111)	(141)	(163)	(181)	(193)	(200)	(206)

Table C-2
Brazos G Regional Water Planning Area
Municipal Water Demand & Supply By City/County
(acft)

City/County	2000	2010	2020	2030	2040	2050	2060
FORT HOOD (P)							
Demand	3,822	4,395	4,337	4,279	4,221	4,182	4,182
Supply	6,144	6,144	6,144	6,144	6,144	6,144	6,144
Groundwater	-	-	-	-	-	-	-
Surface water	6,144	6,144	6,144	6,144	6,144	6,144	6,144
Balance	2,322	1,749	1,807	1,865	1,923	1,962	1,962
HARKER HEIGHTS							
Demand	2,908	3,676	4,669	5,461	6,127	6,307	6,417
Supply	8,415	8,399	8,384	8,368	8,353	8,337	8,321
Groundwater	-	-	-	-	-	-	-
Surface water	8,415	8,399	8,384	8,368	8,353	8,337	8,321
Balance	5,507	4,723	3,715	2,907	2,226	2,030	1,904
HOLLAND							
Demand	130	125	121	117	114	111	111
Supply	258	258	258	258	258	258	258
Groundwater	-	-	-	-	-	-	-
Surface water	258	258	258	258	258	258	258
Balance	128	133	137	141	144	147	147
JARRELL-SCHWERTNER WSC							
Demand	256	308	344	376	395	409	420
Supply	425	423	422	421	420	419	419
Groundwater	114	112	111	110	109	108	108
Surface water	311	311	311	311	311	311	311
Balance	169	115	78	45	25	10	(1)
KEMPNER WSC							
Demand	913	1,142	1,297	1,443	1,535	1,591	1,636
Supply	3,030	2,693	2,646	2,602	2,558	2,510	2,455
Groundwater	-	-	-	-	-	-	-
Surface water	3,030	2,693	2,646	2,602	2,558	2,510	2,455
Balance	2,117	1,551	1,349	1,159	1,023	919	819
KILLEEN							
Demand	12,882	18,031	23,507	25,837	27,827	29,735	31,789
Supply	29,964	29,909	29,854	29,798	29,743	29,687	29,632
Groundwater	-	-	-	-	-	-	-
Surface water	29,964	29,909	29,854	29,798	29,743	29,687	29,632
Balance	17,082	11,878	6,347	3,961	1,916	(48)	(2,157)
LITTLE RIVER-ACADEMY							
Demand	260	275	285	292	294	297	301
Supply	272	272	272	272	272	272	272
Groundwater	204	204	204	204	204	204	204
Surface water	68	68	68	68	68	68	68
Balance	12	(3)	(13)	(20)	(22)	(25)	(29)
MOFFAT WSC							
Demand	351	402	430	457	468	477	488
Supply	496	547	575	602	613	622	633
Groundwater	145	145	145	145	145	145	145
Surface water	351	402	430	457	468	477	488
Balance	145	145	145	145	145	145	145

Table C-2
Brazos G Regional Water Planning Area
Municipal Water Demand & Supply By City/County
(acft)

City/County	2000	2010	2020	2030	2040	2050	2060
MORGANS POINT RESORT							
Demand	348	414	455	493	518	532	546
Supply	291	291	291	291	291	291	291
Groundwater	-	-	-	-	-	-	-
Surface water	291	291	291	291	291	291	291
Balance	(57)	(123)	(164)	(202)	(227)	(241)	(255)
NOLANVILLE							
Demand	299	311	320	326	326	329	334
Supply	740	739	737	736	735	733	732
Groundwater	-	-	-	-	-	-	-
Surface water	740	739	737	736	735	733	732
Balance	441	428	417	410	409	404	398
PENDLETON WSC							
Demand	231	250	265	273	278	282	287
Supply	231	250	265	273	278	282	287
Groundwater	-	-	-	-	-	-	-
Surface water	231	250	265	273	278	282	287
Balance	-	-	-	-	-	-	-
ROGERS							
Demand	199	195	191	188	184	181	181
Supply	368	368	368	368	368	368	368
Groundwater	-	-	-	-	-	-	-
Surface water	368	368	368	368	368	368	368
Balance	169	173	177	180	184	187	187
SALADO WSC							
Demand	987	1,195	1,334	1,461	1,544	1,594	1,636
Supply	2,800	2,797	2,794	2,791	2,788	2,785	2,782
Groundwater	1,200	1,200	1,200	1,200	1,200	1,200	1,200
Surface water	1,600	1,597	1,594	1,591	1,588	1,585	1,582
Balance	1,813	1,602	1,460	1,330	1,244	1,191	1,146
TEMPLE							
Demand	19,357	21,033	23,018	25,170	26,892	28,804	30,613
Supply	37,544	37,493	37,442	37,391	37,340	37,288	37,237
Groundwater	-	-	-	-	-	-	-
Surface water	37,544	37,493	37,442	37,391	37,340	37,288	37,237
Balance	18,187	16,460	14,424	12,221	10,448	8,484	6,624
TROY							
Demand	191	185	181	176	171	168	168
Supply	221	221	221	221	221	221	221
Groundwater	97	97	97	97	97	97	97
Surface water	124	124	124	124	124	124	124
Balance	30	36	40	45	50	53	53
WEST BELL COUNTY WSC							
Demand	678	660	642	623	605	599	599
Supply	921	921	921	921	921	921	921
Groundwater	-	-	-	-	-	-	-
Surface water	921	921	921	921	921	921	921
Balance	243	261	279	298	316	322	322

Table C-2
Brazos G Regional Water Planning Area
Municipal Water Demand & Supply By City/County
(acft)

City/County	2000	2010	2020	2030	2040	2050	2060
COUNTY-OTHER							
Demand	282	280	276	272	270	267	267
Supply	682	681	679	678	677	675	674
Groundwater	13	13	13	13	13	13	13
Surface water	669	668	666	665	664	662	661
Balance	400	401	403	406	407	408	407
Total for Bell County							
Demand	48,665	58,295	67,750	73,914	78,782	83,127	87,372
Supply	104,221	103,807	103,654	103,498	103,323	103,141	102,955
Groundwater	2,242	2,239	2,238	2,236	2,235	2,234	2,233
Surface water	101,979	101,568	101,416	101,262	101,088	100,907	100,722
Balance	55,556	45,512	35,904	29,584	24,541	20,014	15,583

Table C-9
Callahan County
Population, Water Supply, and Water Demand Projections

Population Projection	Year						
	2000	2010	2020	2030	2040	2050	2060
	12,905	12,829	12,980	12,750	12,492	12,206	11,968

	Supply and Demand by Type of Use	Year						
		2000 (acft)	2010 (acft)	2020 (acft)	2030 (acft)	2040 (acft)	2050 (acft)	2060 (acft)
Municipal	Municipal Demand	1,500	1,447	1,419	1,353	1,298	1,247	1,226
	Municipal Existing Supply							
	Groundwater	1,092	1,092	1,092	1,092	1,092	1,092	1,092
	Surface water	1,176	1,176	1,176	1,176	1,176	1,176	1,176
	Total Existing Municipal Supply	2,268	2,268	2,268	2,268	2,268	2,268	2,268
	Municipal Balance	768	821	849	915	970	1,021	1,042
Industrial	Manufacturing Demand	0	0	0	0	0	0	0
	Manufacturing Existing Supply							
	Groundwater	0	0	0	0	0	0	0
	Surface water	0	0	0	0	0	0	0
	Total Manufacturing Supply	0	0	0	0	0	0	0
	Manufacturing Balance	0	0	0	0	0	0	0
	Steam-Electric Demand	0	0	0	0	0	0	0
	Steam-Electric Existing Supply							
	Groundwater	0	0	0	0	0	0	0
	Surface water	0	0	0	0	0	0	0
	Total Steam-Electric Supply	0	0	0	0	0	0	0
	Steam-Electric Balance	0	0	0	0	0	0	0
	Mining Demand	81	92	96	98	100	101	103
	Mining Existing Supply							
	Groundwater	81	92	96	98	100	101	103
	Surface water	0	0	0	0	0	0	0
	Total Mining Supply	81	92	96	98	100	101	103
	Mining Balance	0	0	0	0	0	0	0
Agriculture	Irrigation Demand	819	806	793	780	767	755	742
	Irrigation Existing Supply							
	Groundwater	800	787	774	762	749	737	725
	Surface water	44	44	43	43	43	42	42
	Total Irrigation Supply	844	831	817	805	792	779	767
	Irrigation Balance	25	25	24	25	25	24	25
	Livestock Demand	976	976	976	976	976	976	976
	Livestock Existing Supply							
	Groundwater	0	0	0	0	0	0	0
	Surface water	976	976	976	976	976	976	976
	Total Livestock Supply	976	976	976	976	976	976	976
	Livestock Balance	0	0	0	0	0	0	0
Total	Municipal & Industrial Demand	1,581	1,539	1,515	1,451	1,398	1,348	1,329
	Existing Municipal & Industrial Supply							
	Groundwater	1,173	1,184	1,188	1,190	1,192	1,193	1,195
	Surface water	1,176	1,176	1,176	1,176	1,176	1,176	1,176
	Total Municipal & Industrial Supply	2,349	2,360	2,364	2,366	2,368	2,369	2,371
	Municipal & Industrial Balance	768	821	849	915	970	1,021	1,042
	Agriculture Demand	1,795	1,782	1,769	1,756	1,743	1,731	1,718
	Existing Agricultural Supply							
	Groundwater	800	787	774	762	749	737	725
	Surface water	1,020	1,020	1,019	1,019	1,019	1,018	1,018
	Total Agriculture Supply	1,820	1,807	1,793	1,781	1,768	1,755	1,743
	Agriculture Balance	25	25	24	25	25	24	25
	Total Demand	3,376	3,321	3,284	3,207	3,141	3,079	3,047
	Total Supply							
	Groundwater	1,973	1,971	1,962	1,952	1,941	1,930	1,920
	Surface water	2,196	2,195	2,195	2,195	2,194	2,194	2,194
	Total Supply	4,169	4,166	4,157	4,147	4,135	4,124	4,114
	Total Balance	793	845	873	940	994	1,045	1,067

Table C-10
Brazos G Regional Water Planning Area
Municipal Water Demand & Supply By City/County
(acft)

City/County	2000	2010	2020	2030	2040	2050	2060
Callahan County							
BAIRD							
Demand	396	389	384	378	373	369	369
Supply	523	523	523	523	523	523	523
Groundwater	-	-	-	-	-	-	-
Surface water	523	523	523	523	523	523	523
Balance	127	134	139	145	150	154	154
CLYDE							
Demand	285	271	264	247	230	217	211
Supply	586	586	586	586	586	586	586
Groundwater	-	-	-	-	-	-	-
Surface water	586	586	586	586	586	586	586
Balance	301	315	322	339	356	369	375
COLEMAN COUNTY WSC							
Demand	51	49	51	44	38	31	26
Supply	-	-	-	-	-	-	-
Groundwater	-	-	-	-	-	-	-
Surface water	-	-	-	-	-	-	-
Balance	(51)	(49)	(51)	(44)	(38)	(31)	(26)
CROSS PLAINS							
Demand	171	167	164	160	157	154	154
Supply	432	432	432	432	432	432	432
Groundwater	432	432	432	432	432	432	432
Surface water	-	-	-	-	-	-	-
Balance	261	265	268	272	275	278	278
POTOSI WSC							
Demand	8	8	8	7	6	6	6
Supply	6	6	6	6	6	6	6
Groundwater	-	-	-	-	-	-	-
Surface water	6	6	6	6	6	6	6
Balance	(2)	(2)	(2)	(1)	(0)	(0)	(0)
COUNTY-OTHER							
Demand	589	563	548	517	494	470	460
Supply	721	721	721	721	721	721	721
Groundwater	660	660	660	660	660	660	660
Surface water	61	61	61	61	61	61	61
Balance	132	158	173	204	227	251	261
Total for Callahan County							
Demand	1,500	1,447	1,419	1,353	1,298	1,247	1,226
Supply	2,268	2,268	2,268	2,268	2,268	2,268	2,268
Groundwater	1,092	1,092	1,092	1,092	1,092	1,092	1,092
Surface water	1,176	1,176	1,176	1,176	1,176	1,176	1,176
Balance	768	821	849	915	970	1,021	1,042

Table C-13
Coryell County
Population, Water Supply, and Water Demand Projections

Population Projection	Year						
	2000	2010	2020	2030	2040	2050	2060
	74,978	87,707	102,414	116,741	126,878	135,749	142,886

	Supply and Demand by Type of Use	Year						
		2000 (acft)	2010 (acft)	2020 (acft)	2030 (acft)	2040 (acft)	2050 (acft)	2060 (acft)
Municipal	Municipal Demand	13,284	15,761	17,969	20,079	21,531	22,836	24,017
	Municipal Existing Supply							
	Groundwater	363	363	363	363	363	363	363
	Surface water	23,712	23,910	23,857	23,811	23,768	23,731	23,697
	Total Existing Municipal Supply	24,075	24,273	24,220	24,174	24,131	24,094	24,060
	Municipal Balance	10,791	8,512	6,251	4,095	2,600	1,258	43
Industrial	Manufacturing Demand	7	9	10	11	12	13	14
	Manufacturing Existing Supply							
	Groundwater	14	14	14	14	14	14	14
	Surface water	0	0	0	0	0	0	0
	Total Manufacturing Supply	14	14	14	14	14	14	14
	Manufacturing Balance	7	5	4	3	2	1	0
	Steam-Electric Demand	0	0	0	0	0	0	0
	Steam-Electric Existing Supply							
	Groundwater	0	0	0	0	0	0	0
	Surface water	0	0	0	0	0	0	0
	Total Steam-Electric Supply	0	0	0	0	0	0	0
	Steam-Electric Balance	0	0	0	0	0	0	0
	Mining Demand	100	108	111	113	115	117	118
	Mining Existing Supply							
	Groundwater	100	108	111	113	115	117	118
	Surface water	0	0	0	0	0	0	0
	Total Mining Supply	100	108	111	113	115	117	118
	Mining Balance	0	0	0	0	0	0	0
Agriculture	Irrigation Demand	0	0	0	0	0	0	0
	Irrigation Existing Supply							
	Groundwater	0	0	0	0	0	0	0
	Surface water	1,739	1,739	1,739	1,739	1,739	1,739	1,739
	Total Irrigation Supply	1,739	1,739	1,739	1,739	1,739	1,739	1,739
	Irrigation Balance	1,739	1,739	1,739	1,739	1,739	1,739	1,739
	Livestock Demand	1,339	1,339	1,339	1,339	1,339	1,339	1,339
	Livestock Existing Supply							
	Groundwater	0	0	0	0	0	0	0
	Surface water	1,339	1,339	1,339	1,339	1,339	1,339	1,339
	Total Livestock Supply	1,339	1,339	1,339	1,339	1,339	1,339	1,339
	Livestock Balance	0	0	0	0	0	0	0
Total	Municipal & Industrial Demand	13,391	15,878	18,090	20,203	21,658	22,966	24,149
	Existing Municipal & Industrial Supply							
	Groundwater	477	485	488	490	492	494	495
	Surface water	23,712	23,910	23,857	23,811	23,768	23,731	23,697
	Total Municipal & Industrial Supply	24,189	24,395	24,345	24,301	24,260	24,225	24,192
	Municipal & Industrial Balance	10,798	8,517	6,255	4,098	2,602	1,259	43
	Agriculture Demand	1,339	1,339	1,339	1,339	1,339	1,339	1,339
	Existing Agricultural Supply							
	Groundwater	0	0	0	0	0	0	0
	Surface water	3,078	3,078	3,078	3,078	3,078	3,078	3,078
	Total Agriculture Supply	3,078	3,078	3,078	3,078	3,078	3,078	3,078
	Agriculture Balance	1,739	1,739	1,739	1,739	1,739	1,739	1,739
	Total Demand	14,730	17,217	19,429	21,542	22,997	24,305	25,488
	Total Supply							
	Groundwater	477	485	488	490	492	494	495
	Surface water	26,790	26,988	26,935	26,889	26,846	26,809	26,775
	Total Supply	27,267	27,473	27,423	27,379	27,338	27,303	27,270
	Total Balance	12,537	10,256	7,994	5,837	4,341	2,998	1,782

Table C-14
Brazos G Regional Water Planning Area
Municipal Water Demand & Supply By City/County
(acft)

City/County	2000	2010	2020	2030	2040	2050	2060
Coryell County							
COPPERAS COVE							
Demand	3,224	3,621	4,122	4,567	4,864	5,155	5,436
Supply	7,777	7,763	7,748	7,734	7,719	7,705	7,691
Groundwater	-	-	-	-	-	-	-
Surface water	7,777	7,763	7,748	7,734	7,719	7,705	7,691
Balance	4,553	4,142	3,626	3,167	2,855	2,550	2,255
ELM CREEK WSC							
Demand	34	47	63	78	89	97	105
Supply	9	9	9	9	9	9	9
Groundwater	1	1	1	1	1	1	1
Surface water	8	8	8	8	8	8	8
Balance	(25)	(38)	(54)	(69)	(80)	(88)	(96)
FORT GATES WSC							
Demand	291	322	358	392	415	437	457
Supply	291	322	358	392	415	437	457
Groundwater	-	-	-	-	-	-	-
Surface water	291	322	358	392	415	437	457
Balance	-	-	-	-	-	-	-
FORT HOOD (P)							
Demand	3,633	4,178	4,123	4,068	4,013	3,976	3,976
Supply	5,856	5,856	5,856	5,856	5,856	5,856	5,856
Groundwater	-	-	-	-	-	-	-
Surface water	5,856	5,856	5,856	5,856	5,856	5,856	5,856
Balance	2,223	1,678	1,733	1,788	1,843	1,880	1,880
GATESVILLE							
Demand	2,777	3,409	4,139	4,850	5,356	5,787	6,163
Supply	5,157	5,116	5,070	5,026	4,993	4,961	4,931
Groundwater	-	-	-	-	-	-	-
Surface water	5,157	5,116	5,070	5,026	4,993	4,961	4,931
Balance	2,380	1,707	931	176	(363)	(826)	(1,232)
KEMPNER WSC							
Demand	1,165	1,699	2,311	2,913	3,334	3,698	4,000
Supply	3,873	4,097	4,069	4,049	4,032	4,021	4,012
Groundwater	-	-	-	-	-	-	-
Surface water	3,873	4,097	4,069	4,049	4,032	4,021	4,012
Balance	2,708	2,398	1,758	1,136	698	323	12
COUNTY-OTHER							
Demand	2,160	2,485	2,853	3,211	3,460	3,686	3,880
Supply	1,112	1,111	1,109	1,108	1,107	1,105	1,104
Groundwater	362	362	362	362	362	362	362
Surface water	750	749	747	746	745	743	742
Balance	(1,048)	(1,374)	(1,744)	(2,103)	(2,353)	(2,581)	(2,776)
Total for Coryell County							
Demand	13,284	15,761	17,969	20,079	21,531	22,836	24,017
Supply	24,075	24,273	24,220	24,174	24,131	24,094	24,060
Groundwater	363	363	363	363	363	363	363
Surface water	23,712	23,910	23,857	23,811	23,768	23,731	23,697
Balance	10,791	8,512	6,251	4,095	2,600	1,258	43

Table C-41
Lampasas County
Population, Water Supply, and Water Demand Projections

Population Projection	Year						
	2000	2010	2020	2030	2040	2050	2060
	17,762	20,114	22,596	24,396	25,731	26,606	27,160

	Supply and Demand by Type of Use	Year						
		2000 (acft)	2010 (acft)	2020 (acft)	2030 (acft)	2040 (acft)	2050 (acft)	2060 (acft)
Municipal	Municipal Demand	3,667	4,467	4,956	5,290	5,519	5,675	5,774
	Municipal Existing Supply							
	Groundwater	672	679	681	682	683	684	684
	Surface water	5,794	5,582	5,623	5,650	5,670	5,680	5,686
	Total Existing Municipal Supply	6,466	6,261	6,304	6,332	6,353	6,364	6,370
	Municipal Balance	2,799	1,794	1,348	1,042	834	689	596
Industrial	Manufacturing Demand	108	129	142	153	164	174	187
	Manufacturing Existing Supply							
	Groundwater	0	0	0	0	0	0	0
	Surface water	18	18	18	18	18	18	18
	Total Manufacturing Supply	18	18	18	18	18	18	18
	Manufacturing Balance	(90)	(111)	(124)	(135)	(146)	(156)	(169)
	Steam-Electric Demand	0	0	0	0	0	0	0
	Steam-Electric Existing Supply							
	Groundwater	0	0	0	0	0	0	0
	Surface water	0	0	0	0	0	0	0
	Total Steam-Electric Supply	0	0	0	0	0	0	0
	Steam-Electric Balance	0	0	0	0	0	0	0
	Mining Demand	193	152	144	139	135	131	128
	Mining Existing Supply							
	Groundwater	158	126	119	115	111	109	105
	Surface water	0	0	0	0	0	0	0
	Total Mining Supply	158	126	119	115	111	109	105
	Mining Balance	(35)	(26)	(25)	(24)	(24)	(22)	(23)
Agriculture	Irrigation Demand	170	168	166	164	162	160	159
	Irrigation Existing Supply							
	Groundwater	136	134	132	131	129	128	127
	Surface water	1,255	1,255	1,255	1,255	1,255	1,255	1,255
	Total Irrigation Supply	1,391	1,389	1,387	1,386	1,384	1,383	1,382
	Irrigation Balance	1,221	1,221	1,221	1,222	1,222	1,223	1,223
	Livestock Demand	688	688	688	688	688	688	688
	Livestock Existing Supply							
	Groundwater	0	0	0	0	0	0	0
	Surface water	688	688	688	688	688	688	688
	Total Livestock Supply	688	688	688	688	688	688	688
	Livestock Balance	0	0	0	0	0	0	0
Total	Municipal & Industrial Demand	3,968	4,748	5,242	5,582	5,818	5,980	6,089
	Existing Municipal & Industrial Supply							
	Groundwater	830	805	800	797	794	793	789
	Surface water	5,812	5,600	5,641	5,668	5,687	5,697	5,704
	Total Municipal & Industrial Supply	6,642	6,405	6,441	6,465	6,481	6,490	6,493
	Municipal & Industrial Balance	2,674	1,657	1,199	883	663	510	404
	Agriculture Demand	858	856	854	852	850	848	847
	Existing Agricultural Supply							
	Groundwater	136	134	132	131	129	128	127
	Surface water	1,943	1,943	1,943	1,943	1,943	1,943	1,943
	Total Agriculture Supply	2,079	2,077	2,075	2,074	2,072	2,071	2,070
	Agriculture Balance	1,221	1,221	1,221	1,222	1,222	1,223	1,223
	Total Demand	4,826	5,604	6,096	6,434	6,668	6,828	6,936
	Total Supply							
	Groundwater	966	939	932	928	923	921	916
	Surface water	7,755	7,543	7,584	7,611	7,630	7,640	7,647
	Total Supply	8,721	8,482	8,516	8,539	8,553	8,561	8,563
	Total Balance	3,895	2,878	2,420	2,105	1,885	1,733	1,627

Table C-42
Brazos G Regional Water Planning Area
Municipal Water Demand & Supply By City/County
(acft)

City/County	2000	2010	2020	2030	2040	2050	2060
Lampasas County							
COPPERAS COVE							
Demand	15	22	30	34	38	40	41
Supply	47	47	47	47	47	47	46
Groundwater	-	-	-	-	-	-	-
Surface water	47	47	47	47	47	47	46
Balance	32	25	17	13	9	7	5
KEMPNER							
Demand	238	300	366	411	446	467	482
Supply	238	300	366	411	446	467	482
Groundwater	-	-	-	-	-	-	-
Surface water	238	300	366	411	446	467	482
Balance	-	-	-	-	-	-	-
KEMPNER WSC							
Demand	1,053	1,293	1,547	1,734	1,870	1,956	2,015
Supply	3,509	3,235	3,210	3,192	3,177	3,166	3,158
Groundwater	-	-	-	-	-	-	-
Surface water	3,509	3,235	3,210	3,192	3,177	3,166	3,158
Balance	2,456	1,942	1,663	1,458	1,307	1,210	1,143
LAMPASAS							
Demand	1,224	1,570	1,583	1,579	1,563	1,563	1,548
Supply	1,879	1,870	1,859	1,853	1,848	1,845	1,841
Groundwater	-	-	-	-	-	-	-
Surface water	1,879	1,870	1,859	1,853	1,848	1,845	1,841
Balance	655	300	276	274	285	282	293
LOMETA							
Demand	121	130	141	147	152	155	159
Supply	121	130	141	147	152	155	159
Groundwater	-	-	-	-	-	-	-
Surface water	121	130	141	147	152	155	159
Balance	-	-	-	-	-	-	-
COUNTY-OTHER							
Demand	1,016	1,152	1,289	1,385	1,450	1,494	1,529
Supply	672	679	681	682	683	684	684
Groundwater	672	679	681	682	683	684	684
Surface water	-	-	-	-	-	-	-
Balance	(344)	(473)	(608)	(703)	(767)	(810)	(845)
Total for Lampasas County							
Demand	3,667	4,467	4,956	5,290	5,519	5,675	5,774
Supply	6,466	6,261	6,304	6,332	6,353	6,364	6,370
Groundwater	672	679	681	682	683	684	684
Surface water	5,794	5,582	5,623	5,650	5,670	5,680	5,686
Balance	2,799	1,794	1,348	1,042	834	689	596

Appendix Q
Wholesale Water Provider Supply by Category of Use, by County, and by River Basin
(Updated April 2006)

Appendix Q
Wholesale Water Provider Supply by Category of Use, by County, and by River Basin

						Water Supply Available in Planning Year (acft/yr					
Wholesale Water Provider	Recipient	Source	Source Regional Water Planning Area	Source Basin	Source County	2010	2020	2030	2040	2050	2060
ABILENE CITY OF	ABILENE	HUBBARD CREEK LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	1,029	1,035	1,014	979	945	908
ABILENE CITY OF	ABILENE	HUBBARD CREEK LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	1,888	1,885	1,907	1,860	1,655	1,372
ABILENE CITY OF	ABILENE	FORT PHANTOM HILL LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	167	83	0	0	158	396
ABILENE CITY OF	ABILENE	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	F	COLORADO	RESERVOIR	6,720	6,720	6,720	6,720	6,720	6,720
ABILENE CITY OF	COUNTY-OTHER (TAYLOR)	HUBBARD CREEK LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	95	92	91	127	412	732
ABILENE CITY OF	COUNTY-OTHER (TAYLOR)	FORT PHANTOM HILL LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	994	997	998	962	677	357
ABILENE CITY OF	BAIRD	FORT PHANTOM HILL LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	138	138	138	138	138	138
ABILENE CITY OF	CLYDE (COLORADO)	FORT PHANTOM HILL LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	93	98	112	125	136	140
ABILENE CITY OF	CLYDE (BRAZOS)	FORT PHANTOM HILL LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	214	209	195	182	171	167
ABILENE CITY OF	HAMLIN	FORT PHANTOM HILL LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	307	307	307	307	307	307
ABILENE CITY OF	MERKEL	FORT PHANTOM HILL LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	384	384	384	384	384	384
ABILENE CITY OF	STAMFORD	FORT PHANTOM HILL LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	537	537	537	537	537	537
ABILENE CITY OF	TYE	HUBBARD CREEK LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	138	138	138	138	138	138
ABILENE CITY OF	COUNTY-OTHER (CALLAHAN)	FORT PHANTOM HILL LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	61	61	61	61	61	61
ABILENE CITY OF	HAWLEY WSC	FORT PHANTOM HILL LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	307	307	307	307	307	307
ABILENE CITY OF	POTOSI WSC (CALLAHAN)	FORT PHANTOM HILL LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	6	6	6	6	6	6
ABILENE CITY OF	POTOSI WSC (TAYLOR)	FORT PHANTOM HILL LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	301	301	301	301	301	301
ABILENE CITY OF	STEAMBOAT MOUNTAIN WSC (BRAZOS)	HUBBARD CREEK LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	25	25	25	71	25	25
ABILENE CITY OF	STEAMBOAT MOUNTAIN WSC (BRAZOS)	FORT PHANTOM HILL LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	367	367	367	321	367	367
ABILENE CITY OF	STEAMBOAT MOUNTAIN WSC (COLORADO)	HUBBARD CREEK LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	68	68	68	68	68	68
ABILENE CITY OF	MANUFACTURING	FORT PHANTOM HILL LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	972	972	972	972	972	972
AQUILLA WSD	BRANDON-IRENE WSC	BRAZOS RIVER AUTHORITY AQUILLA SYSTEM	G	BRAZOS	RESERVOIR	256	231	207	182	158	133
AQUILLA WSD	HILL COUNTY-OTHER (BRAZOS)	BRAZOS RIVER AUTHORITY AQUILLA SYSTEM	G	BRAZOS	RESERVOIR	424	384	343	302	262	221
AQUILLA WSD	FILES VALLEY WSC (TRINITY)	BRAZOS RIVER AUTHORITY AQUILLA SYSTEM	G	BRAZOS	RESERVOIR	582	491	400	308	213	114
AQUILLA WSD	FILES VALLEY WSC (BRAZOS)	BRAZOS RIVER AUTHORITY AQUILLA SYSTEM	G	BRAZOS	RESERVOIR	338	341	344	347	354	365
AQUILLA WSD	HILLSBORO	BRAZOS RIVER AUTHORITY AQUILLA SYSTEM	G	BRAZOS	RESERVOIR	3,833	3,466	3,098	2,731	2,364	1,997
BELL COUNTY WCID #1	BELTON	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	7,452	7,439	7,425	7,411	7,397	7,384
BELL COUNTY WCID #1	COPPERAS COVE (CORYELL COUNTY)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	7,763	7,748	7,734	7,719	7,705	7,691
BELL COUNTY WCID #1	COPPERAS COVE (LAMPASAS COUNTY)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	47	47	47	47	47	47
BELL COUNTY WCID #1	HARKER HEIGHTS	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	1,051	1,349	1,346	1,344	1,341	1,336
BELL COUNTY WCID #1	KILLEEN	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	29,909	29,854	29,798	29,743	29,687	29,632
BELL COUNTY WCID #1	NOLANVILLE	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	739	737	736	735	733	732
BELL COUNTY WCID #1	439 WATER SUPPLY CORP	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	2,456	2,151	2,148	2,143	2,140	2,136
BLUEBONNET WSC	BRUCEVILLE-EDDY (MCLENNAN COUNTY)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	818	953	1,069	1,187	1,261	1,374
BLUEBONNET WSC	BRUCEVILLE-EDDY (FALLS COUNTY)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	9	11	12	13	14	15
BLUEBONNET WSC	ELM CREEK WSC (BELL COUNTY)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	221	267	267	313	313	359
BLUEBONNET WSC	ELM CREEK WSC (CORYELL COUNTY)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	48	58	58	68	68	78
BLUEBONNET WSC	ELM CREEK WSC (FALLS COUNTY)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	5	6	6	7	7	8
BLUEBONNET WSC	ELM CREEK WSC (MCLENNAN COUNTY)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	206	249	249	292	292	335
BLUEBONNET WSC	MCGREGOR	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	933	923	913	902	894	899
BLUEBONNET WSC	MOFFAT WSC	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	402	430	457	468	477	488
BLUEBONNET WSC	MOODY	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	202	203	203	204	206	212
BLUEBONNET WSC	PENDLETON WSC	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	250	265	273	278	282	287
BLUEBONNET WSC	COUNTY-OTHER (MCLENNAN)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	5,192	4,905	4,748	4,508	4,410	4,154
BRAZOS RIVER AUTHORITY	SOUTH TEXAS WATER COMPANY	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	5,625	5,625	5,625	5,625	5,625	5,625
BRAZOS RIVER AUTHORITY	RELIANT ENERGY INC	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	83,000	83,000	83,000	83,000	83,000	83,000
BRAZOS RIVER AUTHORITY	CSB MATERIALS	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	1,100	1,100	1,100	1,100	1,100	1,100
BRAZOS RIVER AUTHORITY	HPCP INVESTMENTS	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	500	500	500	500	500	500
BRAZOS RIVER AUTHORITY	DOW PIPELINE COMPANY	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	16,000	16,000	16,000	16,000	16,000	16,000
BRAZOS RIVER AUTHORITY	GCWA	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	32,688	32,688	32,688	32,688	32,688	32,688
BRAZOS RIVER AUTHORITY	AQUILLA WSD	BRAZOS RIVER AUTHORITY AQUILLA SYSTEM	G	BRAZOS	RESERVOIR	5,433	4,913	4,392	3,870	3,351	2,830
BRAZOS RIVER AUTHORITY	CLEBURNE	BRAZOS RIVER AUTHORITY AQUILLA SYSTEM	G	BRAZOS	RESERVOIR	4,790	4,280	3,770	3,259	2,749	2,239
BRAZOS RIVER AUTHORITY	CLEBURNE	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	4,700	4,700	4,700	4,700	4,700	4,700
BRAZOS RIVER AUTHORITY	LAKE WHITNEY WATER COMPANY (BOSQUE)	BRAZOS RIVER AUTHORITY AQUILLA SYSTEM	G	BRAZOS	RESERVOIR	0	0	0	0	0	0
BRAZOS RIVER AUTHORITY	LAKE WHITNEY WATER COMPANY (HILL)	BRAZOS RIVER AUTHORITY AQUILLA SYSTEM	G	BRAZOS	RESERVOIR	84	76	68	60	52	45
BRAZOS RIVER AUTHORITY	439 WATER SUPPLY CORP	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	1,407	1,404	1,402	1,399	1,397	1,394
BRAZOS RIVER AUTHORITY	MANUFACTURING - MILAM COUNTY	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	4,991	4,982	4,973	4,963	4,954	4,945
BRAZOS RIVER AUTHORITY	BELL COUNTY WCID #1	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	49,417	49,325	49,234	49,142	49,050	48,958
BRAZOS RIVER AUTHORITY	BLUEBONNET WSC	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	8,286	8,270	8,255	8,240	8,224	8,209
BRAZOS RIVER AUTHORITY	BRUSHY CREEK MUD	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	3,993	3,985	3,978	3,971	3,963	3,956
BRAZOS RIVER AUTHORITY	COUNTY-OTHER (BELL)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	668	666	665	664	662	661
BRAZOS RIVER AUTHORITY	CENTRAL TEXAS WSC	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	12,772	12,748	12,725	12,702	12,678	12,655
BRAZOS RIVER AUTHORITY	CHISHOLM TRAIL SUD (BELL)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	185	185	185	184	184	184
BRAZOS RIVER AUTHORITY	CHISHOLM TRAIL SUD (WILLIAMSON)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	4,566	4,558	4,549	4,541	4,533	4,524
BRAZOS RIVER AUTHORITY	BELTON	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	2,496	2,491	2,487	2,482	2,478	2,473
BRAZOS RIVER AUTHORITY	GATESVILLE	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	5,116	5,070	5,026	4,993	4,962	4,931
BRAZOS RIVER AUTHORITY	GEORGETOWN	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	22,127	22,087	22,046	22,005	21,965	21,924
BRAZOS RIVER AUTHORITY	LAMPASAS	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	1,870	1,859	1,853	1,848	1,845	1,841
BRAZOS RIVER AUTHORITY	MCGREGOR	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	809	807	806	804	803	801
BRAZOS RIVER AUTHORITY	ROUND ROCK	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	23,239	22,456	21,566	20,588	19,533	18,403
BRAZOS RIVER AUTHORITY	TAYLOR	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	8,497	8,482	8,466	8,450	8,435	8,419
BRAZOS RIVER AUTHORITY	TEMPLE	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	27,396	27,345	27,294	27,243	27,191	27,140
BRAZOS RIVER AUTHORITY	IRRIGATION (BELL)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	284	284	284	284	284	284
BRAZOS RIVER AUTHORITY	JARRELL-SCHWERTNER WSC (BELL)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	310	310	310	310	310	310

Appendix Q
Wholesale Water Provider Supply by Category of Use, by County, and by River Basin

Wholesale Water Provider	Recipient	Source	Source Regional Water Planning Area	Source Basin	Source County	2010	2020	2030	2040	2050	2060
BRAZOS RIVER AUTHORITY	JARRELL-SCHWERTNER WSC (WILLIAMSON)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	690	690	690	690	690	690
BRAZOS RIVER AUTHORITY	KEMPNER WSC (BELL)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	1,494	1,494	1,494	1,494	1,494	1,494
BRAZOS RIVER AUTHORITY	KEMPNER WSC (CORYELL)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	1,906	1,906	1,906	1,906	1,906	1,906
BRAZOS RIVER AUTHORITY	KEMPNER WSC (LAMPASAS)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	1,741	1,732	1,724	1,714	1,705	1,696
BRAZOS RIVER AUTHORITY	IRRIGATION (COMANCHE)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	5,025	5,025	5,025	5,025	5,025	5,025
BRAZOS RIVER AUTHORITY	COUNTY-OTHER (WILLIAMSON)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	552	578	590	598	602	607
BRAZOS RIVER AUTHORITY	UPPER LEON RIVER MWD	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	6,427	6,415	6,404	6,392	6,380	6,368
BRAZOS RIVER AUTHORITY	ACTON MUD (HOOD)	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	6,230	6,230	6,230	6,230	6,230	6,230
BRAZOS RIVER AUTHORITY	ACTON MUD (JOHNSON)	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	770	770	770	770	770	770
BRAZOS RIVER AUTHORITY	STEAM-ELECTRIC (HOOD)	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	67,447	67,447	67,447	67,447	67,447	67,447
BRAZOS RIVER AUTHORITY	MINING (STEPHENS)	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	6,000	6,000	6,000	6,000	6,000	6,000
BRAZOS RIVER AUTHORITY	IRRIGATION (SOMERVELL)	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	200	200	200	200	200	200
BRAZOS RIVER AUTHORITY	STEAM-ELECTRIC (PALO PINTO)	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	3,600	3,600	3,600	3,600	3,600	3,600
BRAZOS RIVER AUTHORITY	IRRIGATION (HOOD)	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	4,850	4,850	4,850	4,850	4,850	4,850
BRAZOS RIVER AUTHORITY	MINING (PALO PINTO)	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	410	410	410	410	410	410
BRAZOS RIVER AUTHORITY	ABILENE	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	50	50	50	50	50	50
BRAZOS RIVER AUTHORITY	BRENHAM	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	3,535	3,535	3,535	3,535	3,535	3,535
BRAZOS RIVER AUTHORITY	GRAHAM	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	1,000	1,000	1,000	1,000	1,000	1,000
BRAZOS RIVER AUTHORITY	GRANBURY	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	10,800	10,800	10,800	10,800	10,800	10,800
BRAZOS RIVER AUTHORITY	KEENE	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	2,040	2,040	2,040	2,040	2,040	2,040
BRAZOS RIVER AUTHORITY	LORENA	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	1,000	1,000	1,000	1,000	1,000	1,000
BRAZOS RIVER AUTHORITY	LUBBOCK	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	961	961	961	961	961	961
BRAZOS RIVER AUTHORITY	MARLIN	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	1,200	1,200	1,200	1,200	1,200	1,200
BRAZOS RIVER AUTHORITY	ROSEBUD	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	100	100	100	100	100	100
BRAZOS RIVER AUTHORITY	STAMFORD	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	1,820	1,820	1,820	1,820	1,820	1,820
BRAZOS RIVER AUTHORITY	WHITNEY	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	750	750	750	750	750	750
BRAZOS RIVER AUTHORITY	IRRIGATION (HILL)	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	1,060	1,060	1,060	1,060	1,060	1,060
BRAZOS RIVER AUTHORITY	IRRIGATION (PALO PINTO)	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	1,920	1,920	1,920	1,920	1,920	1,920
BRAZOS RIVER AUTHORITY	COUNTY-OTHER (PALO PINTO)	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	1,138	1,138	1,138	1,138	1,138	1,138
BRAZOS RIVER AUTHORITY	JOHNSON COUNTY FWSD #1	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	1,665	1,665	1,665	1,665	1,665	1,665
BRAZOS RIVER AUTHORITY	JOHNSON COUNTY RURAL WSC	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	13,210	13,210	13,210	13,210	13,210	13,210
BRAZOS RIVER AUTHORITY	STEAM-ELECTRIC (BOSQUE)	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	3,500	3,500	3,500	3,500	3,500	3,500
BRAZOS RIVER AUTHORITY	COUNTY-OTHER (HOOD)	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	600	600	600	600	600	600
BRAZOS RIVER AUTHORITY	MANUFACTURING (PALO PINTO)	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	120	120	120	120	120	120
BRAZOS RIVER AUTHORITY	COUNTY-OTHER (STEPHENS)	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	800	800	800	800	800	800
BRAZOS RIVER AUTHORITY	TEXAS A&M UNIVERSITY	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	6,945	6,945	6,945	6,945	6,945	6,945
BRAZOS RIVER AUTHORITY	STEAM-ELECTRIC (GRIMES)	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	3,600	3,600	3,600	3,600	3,600	3,600
BRAZOS RIVER AUTHORITY	STEAM-ELECTRIC (SOMERVELL)	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	40,000	40,000	40,000	40,000	40,000	40,000
BRAZOS RIVER AUTHORITY	STEAM-ELECTRIC (ROBERTSON)	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	25,000	25,000	25,000	25,000	25,000	25,000
BRAZOS RIVER AUTHORITY	WELLBORN SUD	BRAZOS RIVER AUTHORITY MAIN STEM SYSTEM	G	BRAZOS	RESERVOIR	4,000	4,000	4,000	4,000	4,000	4,000
CEDAR PARK CITY OF	CEDAR PARK	HIGHLAND LAKES SYSTEM	K	COLORADO	RESERVOIR	15,596	14,896	14,058	13,162	12,153	11,073
CEDAR PARK CITY OF	COUNTY-OTHER (WILLIAMSON)	HIGHLAND LAKES SYSTEM	K	COLORADO	RESERVOIR	731	731	731	731	731	731
CEDAR PARK CITY OF	WILLIAMSON-TRAVIS CO. MUD #1	HIGHLAND LAKES SYSTEM	K	COLORADO	RESERVOIR	770	1,085	1,462	1,865	2,320	2,807
CEDAR PARK CITY OF	BLOCKHOUSE MUD	HIGHLAND LAKES SYSTEM	K	COLORADO	RESERVOIR	903	1,288	1,749	2,242	2,796	3,389
CENTRAL TEXAS WSC	COUNTY-OTHER (FALLS)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	45	45	45	45	45	45
CENTRAL TEXAS WSC	BARTLETT	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	180	180	180	180	180	180
CENTRAL TEXAS WSC	COUNTY-OTHER (MILAM)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	2,871	2,167	1,414	1,061	707	241
CENTRAL TEXAS WSC	BELL-MILAM-FALLS WSC (BELL COUNTY)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	240	284	328	372	416	460
CENTRAL TEXAS WSC	BELL-MILAM-FALLS WSC (FALLS COUNTY)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	196	196	196	196	196	209
CENTRAL TEXAS WSC	BELL-MILAM-FALLS WSC (MILAM COUNTY)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	164	194	224	254	284	314
CENTRAL TEXAS WSC	BELL-MILAM-FALLS WSC (WILLIAMSON COUNTY)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	33	39	45	51	57	63
CENTRAL TEXAS WSC	COUNTY-OTHER (CORYELL)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	200	600	1,000	1,200	1,400	1,600
CENTRAL TEXAS WSC	DOG RIDGE WSC	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	771	871	971	971	971	1,071
CENTRAL TEXAS WSC	EAST BELL COUNTY WSC (BELL COUNTY)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	235	235	235	235	235	235
CENTRAL TEXAS WSC	EAST BELL COUNTY WSC (FALLS COUNTY)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	106	106	106	106	106	106
CENTRAL TEXAS WSC	HOLLAND	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	258	258	258	258	258	258
CENTRAL TEXAS WSC	KEMPNER WSC	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	5,500	5,500	5,500	5,500	5,500	5,500
CENTRAL TEXAS WSC	LOTT	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	184	184	184	184	184	184
CENTRAL TEXAS WSC	RODGERS	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	368	368	368	368	368	368
CENTRAL TEXAS WSC	ROSEBUD	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	500	500	500	500	500	500
CENTRAL TEXAS WSC	SALADO WSC	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	0	100	250	300	350	400
CENTRAL TEXAS WSC	WEST BELL COUNTY WSC	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	921	921	921	921	921	921
EASTLAND COUNTY WSD	EASTLAND	NORTH FORK LEON RIVER RUN-OF-RIVER	G	BRAZOS	EASTLAND	450	450	450	450	450	450
EASTLAND COUNTY WSD	EASTLAND	LEON LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	4,321	4,321	4,321	4,321	4,321	4,321
EASTLAND COUNTY WSD	COUNTY-OTHER (EASTLAND)	LEON LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	420	420	420	420	420	420
EASTLAND COUNTY WSD	RANGER	LEON LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	710	710	710	710	710	710
NORTH CENTRAL TEXAS MUNICIPAL WATER AUTHORITY	ASPERMONT	MILLERS CREEK LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	42	33	25	17	8	0
NORTH CENTRAL TEXAS MUNICIPAL WATER AUTHORITY	COUNTY-OTHER (HASKELL)	MILLERS CREEK LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	27	23	16	10	6	0
NORTH CENTRAL TEXAS MUNICIPAL WATER AUTHORITY	HASKELL	MILLERS CREEK LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	225	180	135	90	45	0
NORTH CENTRAL TEXAS MUNICIPAL WATER AUTHORITY	KNOX CITY	MILLERS CREEK LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	119	95	72	48	24	0
NORTH CENTRAL TEXAS MUNICIPAL WATER AUTHORITY	MUNDAY	MILLERS CREEK LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	125	100	75	50	25	0
NORTH CENTRAL TEXAS MUNICIPAL WATER AUTHORITY	RULE	MILLERS CREEK LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	13	11	8	5	3	0
NORTH CENTRAL TEXAS MUNICIPAL WATER AUTHORITY	COUNTY-OTHER (KNOX)	MILLERS CREEK LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	32	25	19	13	6	0
PALO PINTO MWD #1	MINERAL WELLS	PALO PINTO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	2,887	3,049	3,184	3,278	3,425	3,611
PALO PINTO MWD #1	COUNTY-OTHER (PALO PINTO)	PALO PINTO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	994	994	994	994	994	994

Appendix Q
Wholesale Water Provider Supply by Category of Use, by County, and by River Basin

Wholesale Water Provider	Recipient	Source	Source Regional Water Planning Area	Source Basin	Source County	2010	2020	2030	2040	2050	2060
PALO PINTO MWD #1	STEAM-ELECTRIC (PALO PINTO)	PALO PINTO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	2,024	2,024	2,024	1,700	1,251	758
ROUND ROCK CITY OF	ROUND ROCK	EDWARDS-BFZ AQUIFER	G	BRAZOS	WILLIAMSON	1,799	1,778	1,765	1,751	1,738	1,729
ROUND ROCK CITY OF	ROUND ROCK	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	23,240	22,456	21,566	20,588	19,533	18,403
ROUND ROCK CITY OF	FERN BLUFF MUD	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	1,339	2,049	2,882	3,805	4,810	5,888
ROUND ROCK CITY OF	COUNTY-OTHER (WILLIAMSON)	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	230	257	269	278	282	288
SWEETWATER CITY OF	SWEETWATER	SWEETWATER LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	443	441	439	436	434	432
SWEETWATER CITY OF	SWEETWATER	DOCKUM AQUIFER	G	BRAZOS	NOLAN	733	733	733	733	733	733
SWEETWATER CITY OF	SWEETWATER	BRAZOS RIVER RUN-OF-RIVER	G	BRAZOS	NOLAN	274	274	270	270	270	265
SWEETWATER CITY OF	BITTER CREEK WSC (FISHER)	SWEETWATER LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	127	126	126	125	124	124
SWEETWATER CITY OF	BITTER CREEK WSC (NOLAN/BRAZOS)	BRAZOS RIVER RUN-OF-RIVER	G	BRAZOS	NOLAN	118	118	116	112	106	101
SWEETWATER CITY OF	BITTER CREEK WSC (NOLAN/COLORADO)	BRAZOS RIVER RUN-OF-RIVER	G	BRAZOS	NOLAN	10	9	11	14	19	24
SWEETWATER CITY OF	COUNTY-OTHER (NOLAN/BRAZOS)	BRAZOS RIVER RUN-OF-RIVER	G	BRAZOS	NOLAN	71	71	72	74	78	82
SWEETWATER CITY OF	COUNTY-OTHER (NOLAN/COLORADO)	BRAZOS RIVER RUN-OF-RIVER	G	BRAZOS	NOLAN	97	96	94	91	86	82
SWEETWATER CITY OF	COUNTY-OTHER (TAYLOR)	SWEETWATER LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	104	103	103	102	101	101
SWEETWATER CITY OF	ROBY	SWEETWATER LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	47	44	38	35	32	26
SWEETWATER CITY OF	ROBY	BRAZOS RIVER RUN-OF-RIVER	G	BRAZOS	NOLAN	147	149	154	156	158	163
SWEETWATER CITY OF	MANUFACTURING (NOLAN)	SWEETWATER LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	305	303	302	300	298	297
UPPER LEON MWD	COMANCHE	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	634	632	622	605	587	568
UPPER LEON MWD	DE LEON	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	280	280	274	265	256	248
UPPER LEON MWD	DUBLIN	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	485	516	544	576	682	753
UPPER LEON MWD	GORMAN	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	137	134	127	120	113	108
UPPER LEON MWD	HAMILTON	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	3,029	2,991	2,975	2,964	2,880	2,829
UPPER LEON MWD	STEPHENVILLE	BRAZOS RIVER AUTHORITY LITTLE RIVER SYSTEM	G	BRAZOS	RESERVOIR	1,862	1,862	1,862	1,862	1,862	1,862
WACO CITY OF	WACO	WACO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	47,348	44,472	29,910	25,794	24,433	25,704
WACO CITY OF	WACO	BRAZOS RIVER RUN-OF-RIVER	G	BRAZOS	MCLENNAN	5,600	5,600	5,600	5,600	5,600	5,600
WACO CITY OF	BELLMEAD	WACO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	2,622	2,751	2,873	2,984	3,065	3,202
WACO CITY OF	COUNTY-OTHER (MCLENNAN)	WACO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	8,042	10,602	14,504	14,625	14,751	14,878
WACO CITY OF	HEWITT	WACO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	1,467	3,294	6,106	6,198	6,293	6,389
WACO CITY OF	LACY-LAKEVIEW	WACO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	993	1,117	2,070	2,101	2,134	2,166
WACO CITY OF	WOODWAY	WACO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	2,944	2,925	2,903	2,882	2,867	2,874
WACO CITY OF	BEVERLY HILLS	WACO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	414	416	416	414	416	424
WACO CITY OF	WEST BRAZOS WSC	WACO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	400	400	450	500	550	600
WACO CITY OF	CHALK BLUFF WSC	WACO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	1,160	1,766	2,846	2,881	2,918	2,955
WACO CITY OF	CRAWFORD	WACO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	65	65	65	65	65	70
WACO CITY OF	CROSS COUNTRY WSC	WACO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	450	500	550	600	650	700
WACO CITY OF	GHOLSON	WACO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	956	1,462	2,539	2,574	2,611	2,647
WACO CITY OF	HALLSBURG	WACO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	150	150	150	160	170	180
WACO CITY OF	MART	WACO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	350	350	350	400	400	400
WACO CITY OF	NORTH BOSQUE WSC	WACO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	350	450	500	600	650	700
WACO CITY OF	RIESEL	WACO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	150	150	150	150	150	150
WACO CITY OF	WEST	WACO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	1,206	1,712	2,789	2,824	2,861	2,897
WACO CITY OF	STEAM-ELECTRIC	WACO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	7,000	3,000	6,000	9,000	9,388	7,059
WACO CITY OF	MANUFACTURING	WACO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	2,503	2,888	3,249	3,618	3,948	4,275
WACO CITY OF	WESTERN HILL WS	WACO LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	400	500	550	600	650	700
WEST CENTRAL TEXAS MWD	ABILENE	HUBBARD CREEK LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	10,921	10,808	10,670	10,512	10,338	10,162
WEST CENTRAL TEXAS MWD	ALBANY	HUBBARD CREEK LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	1,906	1,897	1,905	1,924	1,959	1,997
WEST CENTRAL TEXAS MWD	ANSON	HUBBARD CREEK LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	2,059	2,066	2,081	2,105	2,129	2,152
WEST CENTRAL TEXAS MWD	BRECKENRIDGE	HUBBARD CREEK LAKE/RESERVOIR	G	BRAZOS	RESERVOIR	2,439	2,439	2,439	2,439	2,439	2,439