

# BRAZOS G

WATER PLANNING GROUP

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**COUNTIES**

Bell  
Bosque  
Brazos  
Burleson  
Callahan  
Comanche  
Coryell  
Eastland  
Erath  
Falls  
Fisher  
Grimes  
Hamilton  
Haskell  
Hill  
Hood  
Johnson  
Jones  
Kent  
Knox  
Lampasas  
Lee  
Limestone  
McLennan  
Milam  
Nolan  
Palo Pinto  
Robertson  
Shackelford  
Somervell  
Stephens  
Stonewall  
Taylor  
Throckmorton  
Washington  
Williamson  
Young

BRAZOS RIVER AUTHORITY, Administrative Agent  
P.O. Box 7555 v Waco, Texas 76714-7555  
(254) 761-3100 v Fax (254) 761-3204

June 30, 2009

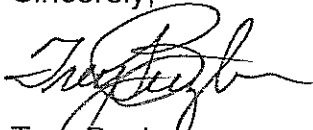
Mr. Matt Nelson  
Texas Water Development Board  
P.O. Box 13231  
Austin, Texas 78711-3231

Re: Preferred steam-electric water demands to complete 2011 Brazos G  
Regional Water Plan

Dear Mr. Nelson: *Matt*

Please find enclosed a memo prepared by HDR Engineering, Inc. (Job No. 00010478-001) dated April 7, 2009, and revised June 6, 2009, that contains the Brazos G Regional Water Planning Group's (Brazos G) preferred steam-electric water demands to complete the 2011 Brazos G Regional Water Plan. Submission of this memo to the TWDB for consideration was approved by the Brazos G at its meeting held on June 17, 2009. If you have any questions regarding this matter, please contact my office.

Sincerely,



Trey Buzbee  
Administrator  
Brazos G Regional Water Planning Group

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To: Brazos G Regional Water Planning Group	
From: Grady Reed David Dunn, PE Scott Diermann, PE, Brazos G RWPG	Project: Brazos G 2011 Regional Water Plan
CC: Trey Buzbee, Brazos River Authority	
Date: April 7, 2009, Revised June 6, 2009	Job No: 00010478-001

**RE:** Final Population and Water Demand Projections for Use in the 2011 Brazos G Regional Water Plan

## **Introduction**

This memo summarizes changes to the population and water demand projections contained in the 2006 Brazos G Regional Water Plan (2006 Plan) to be used in the 2011 Plan. There are no changes to the water demand projections for manufacturing, mining, irrigation, or livestock use. Due to the population projection revisions noted below, some changes were made to the municipal water demand projections for certain Water User Groups (WUGs). Finally, based in part on a recent study conducted by the Bureau of Economic Geology titled "Water Demand Projections for Power Generation in Texas," and with additional input from Scott Diermann and HDR, some steam-electric water demand projections have been revised as discussed below.

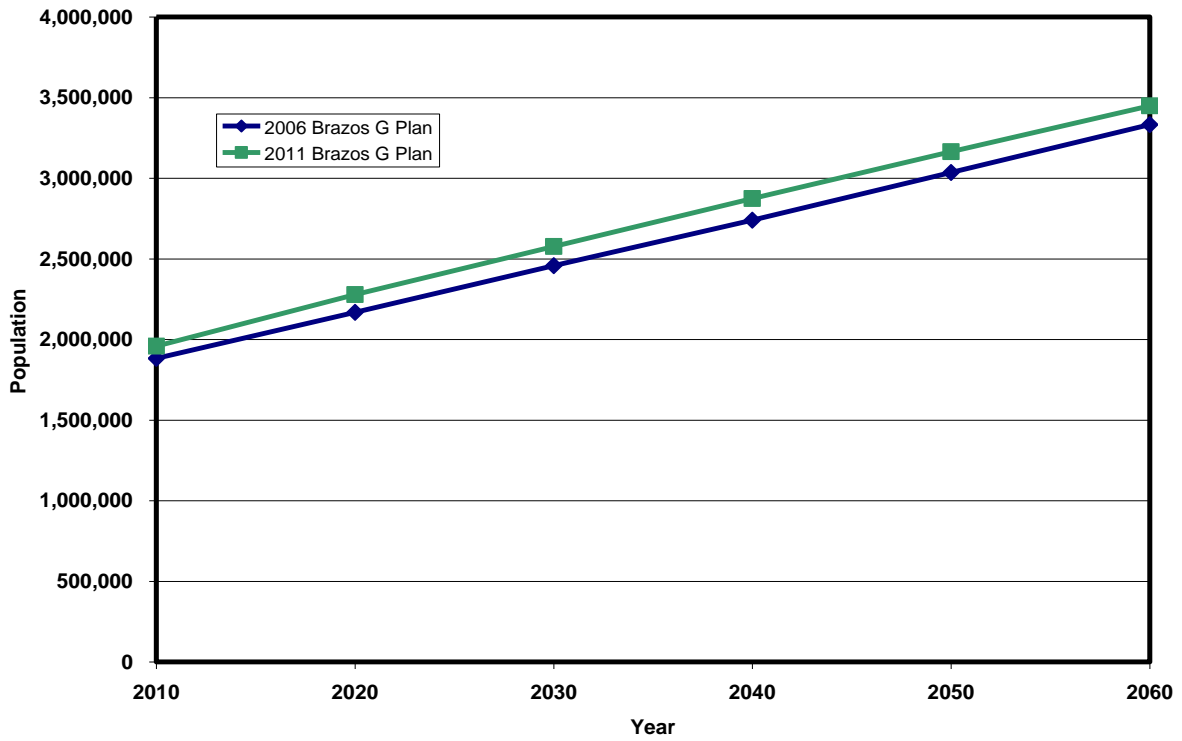
## **Population Projection Revisions**

As noted in a previous memo dated February 12, 2009, concerning suggested revisions to specific population projections to be used in the 2011 Plan, population revisions were recommended for several WUGs in the Brazos G Area. In early March 2009, Brazos G formally requested that the Texas Water Development Board (TWDB) revise the population projections for certain WUGs, as detailed in Attachment A. The population revisions result in an increased population for four counties (Bell, Johnson, Milam and Williamson). As shown in Figure 1, the total regional population in 2060 increases by 116,779 to a new total of 3,448,879.

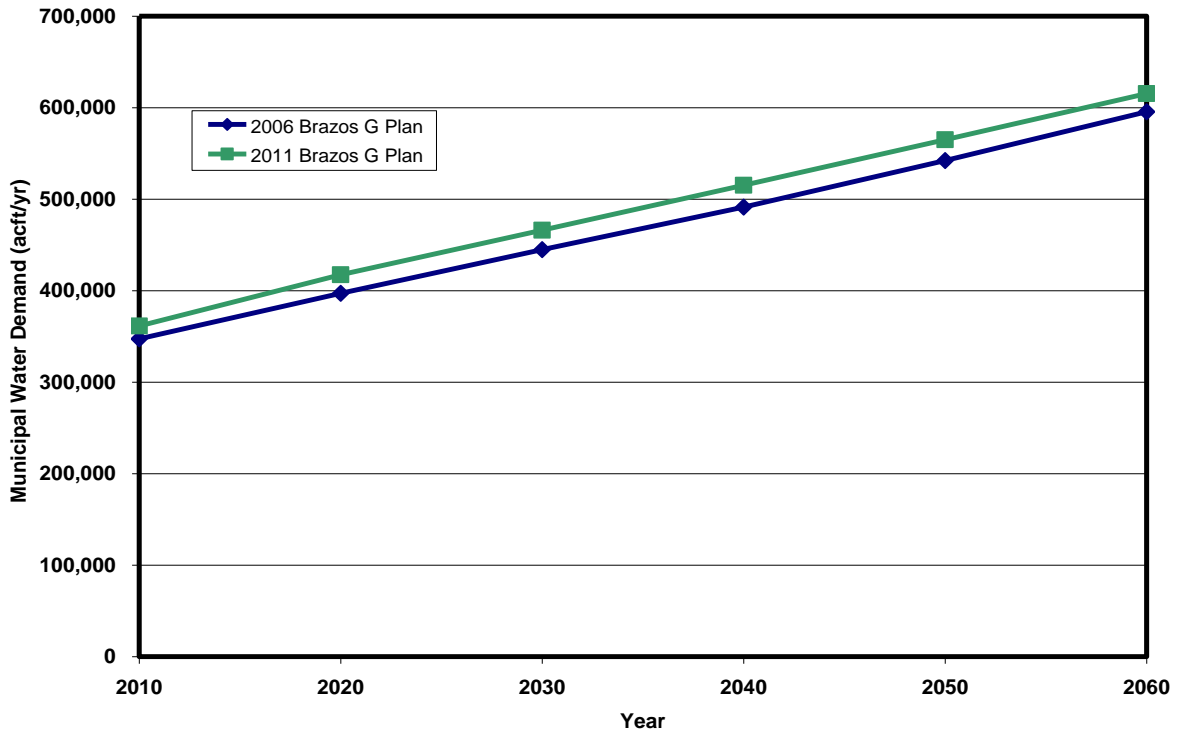
## **Municipal Water Demand Projection Revisions**

For those WUGs with a revised population, the water demands must also be revised. The water demand projections were revised by taking the revised population times the per capita use value contained in the 2006 Plan. For the new WUGs (Cresson, deCordova, Jarrell, Kosse, Lipan, Morgan and Tolar) the TWDB determined the per capita use rate to be used for the water demands. A detailed summary of the revised water demand projections is contained in Attachment B. As shown in Figure 2, the total regional municipal demand in 2060 increases by 20,001 acft/yr to a new total of 615,483 acft/yr.

HDR recommends that the Brazos G RWPG request the TWDB to revise the municipal water demand projections for use in the 2011 Plan as shown in Attachment B.



**Figure 1.**  
**Brazos G Total Population, 2006 Plan and 2011 Plan**



**Figure 2.**  
**Brazos G Total Municipal Water Demand, 2006 Plan and 2011 Plan**

## **Steam-Electric Water Demand Projections**

Based in part on a recent study conducted by the Bureau of Economic Geology (BEG) entitled "Water Demand Projections for Power Generation in Texas," and with additional input from Scott Diermann (Brazos G RWPG Electric Utilities Representative) and HDR, initially recommended steam-electric water demand projections were presented to the Brazos G RWPG in the first version of this memorandum, dated April 7, 2009, and at the April 15, 2009 meeting of the Brazos G RWPG.

For all but six counties, the initially recommended water demands are either from the 2006 Plan or from the BEG study, depending on which set of projections seemed to best reflect the steam-electric power generating activities in those counties. The steam-electric projections for the six remaining counties (Grimes, Hood, Johnson, Milam, Nolan and Palo Pinto) were developed with information obtained by Scott Diermann and HDR concerning existing and planned facilities, as summarized in Table 1.

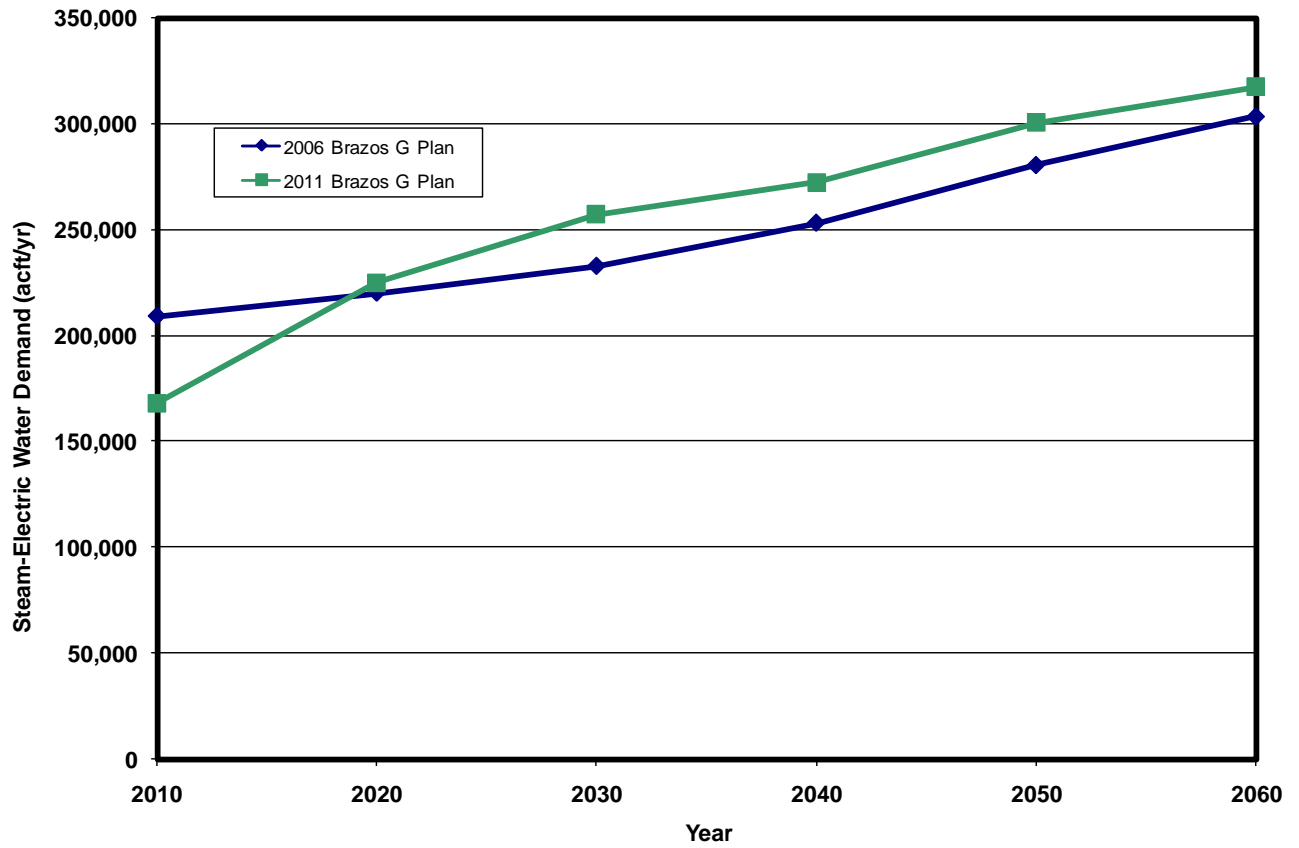
At the April meeting, the Brazos G RWPG directed HDR and the Brazos River Authority (BRA) to solicit input from county judges and steam-electric generators in the 11 counties for which the recommended demands differ from those adopted for the 2006 Plan. The BRA sent out letters requesting comment on the initially recommended demands, and received comments back from four entities: Tenaska; Optim Energy, LP; Wolf Hollow and AEP. Those comments are included as Attachment D. Upon review of those comments, the recommended steam-electric demands have been revised for three counties: Jones, Haskell and Hood.

The recommended steam-electric demands, as revised, are shown in Attachment C and summarized in Figure 3. The total regional steam-electric demand in 2060 increases by 13,658 acft/yr over the 2006 Plan demands to a new total of 317,619 acft/yr.

HDR recommends that the Brazos G RWPG request the TWDB to revise the steam-electric water demand projections for use in the 2011 Plan as shown in Attachment C.

**Table 1. Alternative Steam-Electric Demand Projections for Six Brazos G Counties**

Facility	2010	2020	2030	2040	2050	2060	Comments
<b>Grimes County</b>							
Gibbons Creek Unit 1	6,000	6,000	6,000	6,000	6,000	6,000	Existing use, based on TMPA conversation.
Tenaska Frontier Station	6,000	8,100	9,500	11,000	13,000	16,000	Based on planned expansions of existing facility.
Gibbons Creek Unit 2	0	8,000	8,000	8,000	8,000	8,000	800 MW Unit planned prior to 2020.
Unnamed 1200 MW Unit	0	9,660	9,660	9,660	9,660	9,660	New gas unit planned for May 2011.
<b>Total Grimes County</b>	<b>12,000</b>	<b>31,760</b>	<b>33,160</b>	<b>34,660</b>	<b>36,660</b>	<b>39,660</b>	
<b>Hood County</b>							
DeCordova Station	0	0	0	0	0	0	Planned decommissioning.
Wolf Hollow I	4,000	5,862	6,853	8,062	9,535	11,331	Includes existing Wolf demands plus expansion.
<b>Total Hood County</b>	<b>4,000</b>	<b>5,862</b>	<b>6,853</b>	<b>8,062</b>	<b>9,535</b>	<b>11,331</b>	
<b>Johnson County</b>							
BEPC Cleburne	3,500	3,500	3,500	3,500	3,500	3,500	Existing demands, reflecting both fresh and reuse supplies.
BEPC Cleburne Expansion	0	3,500	3,500	3,500	3,500	3,500	Expansion of Cleburne facility.
<b>Total Johnson County</b>	<b>3,500</b>	<b>7,000</b>	<b>7,000</b>	<b>7,000</b>	<b>7,000</b>	<b>7,000</b>	
<b>Milam County</b>							
<b>Total Milam County</b>	<b>12,500</b>	<b>12,500</b>	<b>12,500</b>	<b>12,500</b>	<b>16,000</b>	<b>16,000</b>	2006 Brazos G projections, except for increase in 2010.
<b>Nolan County</b>							
<b>Total Nolan County</b>	<b>807</b>	<b>11,311</b>	<b>20,000</b>	<b>20,000</b>	<b>20,000</b>	<b>20,000</b>	BEG 2008 projections, limited to 20,000 actf/yr.
<b>Palo Pinto County</b>							
RW Miller Station	840	840	840	840	840	840	Existing demands at RW Miller station.
RW Miller Station Expansion	0	3,160	3,160	3,160	3,160	3,160	Expansion planned for 2018.
<b>Total Palo Pinto County</b>	<b>840</b>	<b>4,000</b>	<b>4,000</b>	<b>4,000</b>	<b>4,000</b>	<b>4,000</b>	



**Figure 3.**  
**Brazos G Total Steam-Electric Water Demand, 2006 Plan and 2011 Plan**

**Attachment A**  
**Summary of Population Changes**

**Summary of Population Changes**

<b>County/City</b>		<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
<b><u>Bell County</u></b>							
Harker Heights	(2011 Plan)	23,869	30,952	36,978	42,090	43,640	44,407
Harker Heights	(2006 Plan)	22,477	29,147	34,822	39,636	41,096	41,818
<i>Increase/(Decrease)</i>		1,392	1,805	2,156	2,454	2,544	2,589
Killeen	(2011 Plan)	113,217	126,985	141,148	154,641	169,132	184,064
Killeen	(2006 Plan)	104,528	117,239	130,315	142,772	156,151	169,937
<i>Increase/(Decrease)</i>		8,689	9,746	10,833	11,869	12,981	14,127
Morgans Point Resort	(2011 Plan)	4,219	4,781	5,290	5,617	5,828	5,981
Morgans Point Resort	(2006 Plan)	3,698	4,191	4,637	4,924	5,109	5,243
<i>Increase/(Decrease)</i>		521	590	653	693	719	738
Nolanville	(2011 Plan)	2,611	2,753	2,882	2,965	3,019	3,058
Nolanville	(2006 Plan)	2,333	2,460	2,575	2,649	2,697	2,732
<i>Increase/(Decrease)</i>		278	293	307	316	322	326
County-Other	(2011 Plan)	1,289	1,223	1,157	1,116	1,089	1,071
County-Other	(2006 Plan)	1,810	1,813	1,810	1,809	1,808	1,809
<i>Increase/(Decrease)</i>		(521)	(590)	(653)	(693)	(719)	(738)
Bell County Total	(2011 Plan)	289,672	327,610	364,632	396,478	424,255	449,460
Bell County Total	(2006 Plan)	279,313	315,766	351,336	381,839	408,408	432,418
<i>Increase/(Decrease)</i>		10,359	11,844	13,296	14,639	15,847	17,042
<b><u>Bosque County</u></b>							
Morgan	(2011 Plan)	569	668	784	920	1,080	1,268
Morgan	(2006 Plan) ** Not a WUG in the 2006 Plan						
<i>Increase/(Decrease)</i>		569	668	784	920	1,080	1,268
Valley Mills	(2011 Plan)	1,279	1,449	1,568	1,613	1,631	1,653
Valley Mills	(2006 Plan)	1,164	1,211	1,244	1,256	1,261	1,267
<i>Increase/(Decrease)</i>		115	238	324	357	370	386
County-Other	(2011 Plan)	5,521	6,877	7,782	8,029	8,025	8,025
County-Other	(2006 Plan)	6,205	7,783	8,890	9,306	9,475	9,679
<i>Increase/(Decrease)</i>		(684)	(906)	(1,108)	(1,277)	(1,450)	(1,654)
Bosque County Total	(2011 Plan)	19,831	22,646	24,622	25,364	25,667	26,032
Bosque County Total	(2006 Plan)	19,831	22,646	24,622	25,364	25,667	26,032
<i>Increase/(Decrease)</i>		0	0	0	0	0	0
<b><u>Callahan County</u></b>							
Clyde	(2011 Plan)	3,733	3,787	3,706	3,615	3,514	3,430
Clyde	(2006 Plan)	3,320	3,368	3,296	3,215	3,125	3,050
<i>Increase/(Decrease)</i>		413	419	410	400	389	380
County-Other	(2011 Plan)	5,958	6,024	5,922	5,808	5,681	5,575
County-Other	(2006 Plan)	6,371	6,443	6,332	6,208	6,070	5,955
<i>Increase/(Decrease)</i>		(413)	(419)	(410)	(400)	(389)	(380)
Callahan County Total	(2011 Plan)	12,829	12,980	12,750	12,492	12,206	11,968
Callahan County Total	(2006 Plan)	12,829	12,980	12,750	12,492	12,206	11,968
<i>Increase/(Decrease)</i>		0	0	0	0	0	0

<b>County/City</b>		<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
<b><u>Eastland County</u></b>							
Eastland	(2011 Plan)	4,017	4,028	3,957	3,849	3,723	3,555
Eastland	(2006 Plan)	3,777	3,787	3,720	3,618	3,500	3,342
<i>Increase/(Decrease)</i>		240	241	237	231	223	213
County-Other	(2011 Plan)	5,781	5,795	5,695	5,538	5,356	5,116
County-Other	(2006 Plan)	6,021	6,036	5,932	5,769	5,579	5,329
<i>Increase/(Decrease)</i>		(240)	(241)	(237)	(231)	(223)	(213)
Eastland County Total	(2011 Plan)	18,336	18,382	18,061	17,566	16,989	16,226
Eastland County Total	(2006 Plan)	18,336	18,382	18,061	17,566	16,989	16,226
<i>Increase/(Decrease)</i>		0	0	0	0	0	0
<b><u>Hamilton County</u></b>							
Hico	(2011 Plan)	1,417	1,417	1,417	1,417	1,417	1,417
Hico	(2006 Plan)	1,341	1,341	1,341	1,341	1,341	1,341
<i>Increase/(Decrease)</i>		76	76	76	76	76	76
County-Other	(2011 Plan)	3,431	3,331	3,253	3,279	3,176	3,169
County-Other	(2006 Plan)	3,507	3,407	3,329	3,355	3,252	3,245
<i>Increase/(Decrease)</i>		(76)	(76)	(76)	(76)	(76)	(76)
Hamilton County Total	(2011 Plan)	7,790	7,681	7,596	7,624	7,512	7,504
Hamilton County Total	(2006 Plan)	7,790	7,681	7,596	7,624	7,512	7,504
<i>Increase/(Decrease)</i>		0	0	0	0	0	0
<b><u>Hill County</u></b>							
Hillsboro	(2011 Plan)	8,923	9,284	9,692	10,099	10,534	11,017
Hillsboro	(2006 Plan)	8,477	8,820	9,208	9,595	10,008	10,467
<i>Increase/(Decrease)</i>		446	464	484	504	526	550
Hubbard	(2011 Plan)	1,713	1,713	1,713	1,713	1,713	1,713
Hubbard	(2006 Plan)	1,586	1,586	1,586	1,586	1,586	1,586
<i>Increase/(Decrease)</i>		127	127	127	127	127	127
Itasca	(2011 Plan)	1,633	1,626	1,619	1,612	1,604	1,595
Itasca	(2006 Plan)	1,499	1,493	1,487	1,481	1,474	1,466
<i>Increase/(Decrease)</i>		134	133	132	131	130	129
Whitney	(2011 Plan)	2,157	2,227	2,306	2,385	2,470	2,564
Whitney	(2006 Plan)	2,046	2,112	2,187	2,262	2,343	2,432
<i>Increase/(Decrease)</i>		111	115	119	123	127	132
County-Other	(2011 Plan)	2,074	2,305	2,566	2,827	3,104	3,411
County-Other	(2006 Plan)	2,892	3,144	3,428	3,712	4,014	4,349
<i>Increase/(Decrease)</i>		(818)	(839)	(862)	(885)	(910)	(938)
Hill County Total	(2011 Plan)	33,416	34,947	36,679	38,407	40,252	42,300
Hill County Total	(2006 Plan)	33,416	34,947	36,679	38,407	40,252	42,300
<i>Increase/(Decrease)</i>		0	0	0	0	0	0

<b>County/City</b>		<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
<b><u>Hood County</u></b>							
Cresson	(2011 Plan)	295	360	439	536	654	799
Cresson	(2006 Plan) ** Not a WUG in the 2006 Plan						
<i>Increase/(Decrease)</i>		295	360	439	536	654	799
deCordova	(2011 Plan)	3,074	3,125	3,177	3,230	3,283	3,337
deCordova	(2006 Plan) ** Not a WUG in the 2006 Plan						
<i>Increase/(Decrease)</i>		3,074	3,125	3,177	3,230	3,283	3,337
Granbury	(2011 Plan)	8,073	10,083	11,954	13,914	16,383	19,234
Granbury	(2006 Plan)	6,843	8,202	9,467	10,792	12,461	14,388
<i>Increase/(Decrease)</i>		1,230	1,881	2,487	3,122	3,922	4,846
Lipan	(2011 Plan)	599	844	1,189	1,675	2,359	3,323
Lipan	(2006 Plan) ** Not a WUG in the 2006 Plan						
<i>Increase/(Decrease)</i>		599	844	1,189	1,675	2,359	3,323
Tolar	(2011 Plan)	749	958	1,153	1,357	1,614	1,911
Tolar	(2006 Plan) ** Not a WUG in the 2006 Plan						
<i>Increase/(Decrease)</i>		749	958	1,153	1,357	1,614	1,911
County-Other	(2011 Plan)	17,869	21,047	23,865	26,677	30,166	34,020
County-Other	(2006 Plan)	23,312	27,711	31,806	36,093	41,494	47,732
<i>Increase/(Decrease)</i>		(5,443)	(6,664)	(7,941)	(9,416)	(11,328)	(13,712)
Hood County Total	(2011 Plan)	49,207	58,364	66,888	75,814	87,059	100,045
Hood County Total	(2006 Plan)	49,207	58,364	66,888	75,814	87,059	100,045
<i>Increase/(Decrease)</i>		0	0	0	0	0	0
<b><u>Johnson County</u></b>							
Alvarado	(2011 Plan)	4,204	4,627	5,071	5,556	6,158	6,897
Alvarado	(2006 Plan)	3,595	3,957	4,337	4,752	5,267	5,899
<i>Increase/(Decrease)</i>		609	670	734	804	891	998
Burleson	(2011 Plan)	27,206	42,037	52,747	52,747	52,747	52,747
Burleson	(2006 Plan)	20,303	23,588	27,039	30,809	35,486	41,224
<i>Increase/(Decrease)</i>		6,903	18,449	25,708	21,938	17,261	11,523
Cleburne	(2011 Plan)	30,572	34,467	38,558	43,027	48,353	52,812
Cleburne	(2006 Plan)	29,158	32,872	36,774	41,036	46,324	52,812
<i>Increase/(Decrease)</i>		1,414	1,595	1,784	1,991	2,029	0
Cresson	(2011 Plan)	78	95	116	141	172	210
Cresson	(2006 Plan) ** Not a WUG in the 2006 Plan						
<i>Increase/(Decrease)</i>		78	95	116	141	172	210
Grandview	(2011 Plan)	1,600	2,000	2,500	2,500	2,500	2,500
Grandview	(2006 Plan)	1,452	1,562	1,678	1,805	1,962	2,155
<i>Increase/(Decrease)</i>		148	438	822	695	538	345
Joshua	(2011 Plan)	5,503	6,247	7,028	7,881	8,940	10,239
Joshua	(2006 Plan)	5,114	5,805	6,531	7,324	8,308	9,515
<i>Increase/(Decrease)</i>		389	442	497	557	632	724
Venus	(2011 Plan)	2,435	2,435	2,435	2,435	2,435	2,435
Venus	(2006 Plan)	1,892	1,892	1,892	1,892	1,892	1,892
<i>Increase/(Decrease)</i>		543	543	543	543	543	543

<b>County/City</b>		<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
County-Other	(2011 Plan)	9,014	9,236	9,468	9,717	10,026	10,402
County-Other	(2006 Plan)	11,115	11,596	12,102	12,653	13,338	14,177
<i>Increase/(Decrease)</i>		<i>(2,101)</i>	<i>(2,360)</i>	<i>(2,634)</i>	<i>(2,936)</i>	<i>(3,312)</i>	<i>(3,775)</i>
Johnson County Total	(2011 Plan)	159,451	200,381	238,590	268,082	304,454	346,999
Johnson County Total	(2006 Plan)	151,468	180,509	211,020	244,349	285,700	336,431
<i>Increase/(Decrease)</i>		<i>7,983</i>	<i>19,872</i>	<i>27,570</i>	<i>23,733</i>	<i>18,754</i>	<i>10,568</i>
<b><u>Lampasas County</u></b>							
Lampasas	(2011 Plan)	8,222	9,225	9,952	10,491	10,845	10,325
Lampasas	(2006 Plan)	7,010	7,246	7,417	7,544	7,627	7,680
<i>Increase/(Decrease)</i>		<i>1,212</i>	<i>1,979</i>	<i>2,535</i>	<i>2,947</i>	<i>3,218</i>	<i>2,645</i>
County-Other	(2011 Plan)	5,688	5,900	6,054	6,169	6,244	7,036
County-Other	(2006 Plan)	6,900	7,879	8,589	9,116	9,462	9,681
<i>Increase/(Decrease)</i>		<i>(1,212)</i>	<i>(1,979)</i>	<i>(2,535)</i>	<i>(2,947)</i>	<i>(3,218)</i>	<i>(2,645)</i>
Lampasas County Total	(2011 Plan)	20,114	22,596	24,396	25,731	26,606	27,160
Lampasas County Total	(2006 Plan)	20,114	22,596	24,396	25,731	26,606	27,160
<i>Increase/(Decrease)</i>		<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
<b><u>Limestone County</u></b>							
Kosse	(2011 Plan)	500	503	506	509	512	515
Kosse	(2006 Plan) ** Not a WUG in the 2006 Plan						
<i>Increase/(Decrease)</i>		<i>500</i>	<i>503</i>	<i>506</i>	<i>509</i>	<i>512</i>	<i>515</i>
County-Other	(2011 Plan)	7,384	7,034	6,667	6,284	5,881	5,457
County-Other	(2006 Plan)	7,884	7,537	7,173	6,793	6,393	5,972
<i>Increase/(Decrease)</i>		<i>(500)</i>	<i>(503)</i>	<i>(506)</i>	<i>(509)</i>	<i>(512)</i>	<i>(515)</i>
Limestone County Total	(2011 Plan)	23,322	24,944	25,828	26,505	27,177	28,050
Limestone County Total	(2006 Plan)	23,322	24,944	25,828	26,505	27,177	28,050
<i>Increase/(Decrease)</i>		<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
<b><u>McLennan County</u></b>							
Robinson	(2011 Plan)	9,592	11,353	12,837	14,375	15,352	16,772
Robinson	(2006 Plan)	8,397	8,954	9,423	9,910	10,219	10,668
<i>Increase/(Decrease)</i>		<i>1,195</i>	<i>2,399</i>	<i>3,414</i>	<i>4,465</i>	<i>5,133</i>	<i>6,104</i>
County-Other	(2011 Plan)	26,101	26,538	26,908	27,293	27,534	27,886
County-Other	(2006 Plan)	27,296	28,937	30,322	31,758	32,667	33,990
<i>Increase/(Decrease)</i>		<i>(1,195)</i>	<i>(2,399)</i>	<i>(3,414)</i>	<i>(4,465)</i>	<i>(5,133)</i>	<i>(6,104)</i>
McLennan County Total	(2011 Plan)	231,882	250,398	266,002	282,177	292,449	307,378
McLennan County Total	(2006 Plan)	231,882	250,398	266,002	282,177	292,449	307,378
<i>Increase/(Decrease)</i>		<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
<b><u>Milam County</u></b>							
Cameron	(2011 Plan)	6,231	6,900	7,331	7,596	7,663	7,693
Cameron	(2006 Plan)	5,634	5,634	5,634	5,634	5,634	5,634
<i>Increase/(Decrease)</i>		<i>597</i>	<i>1,266</i>	<i>1,697</i>	<i>1,962</i>	<i>2,029</i>	<i>2,059</i>
Milam County Total	(2011 Plan)	26,053	28,086	29,396	30,201	30,405	30,496
Milam County Total	(2006 Plan)	25,456	26,820	27,699	28,239	28,376	28,437
<i>Increase/(Decrease)</i>		<i>597</i>	<i>1,266</i>	<i>1,697</i>	<i>1,962</i>	<i>2,029</i>	<i>2,059</i>

<b>County/City</b>		<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
<b><u>Somervell County</u></b>							
Glen Rose	(2011 Plan)	2,672	3,009	3,287	3,469	3,543	3,568
Glen Rose	(2006 Plan)	2,210	2,312	2,396	2,451	2,473	2,481
<i>Increase/(Decrease)</i>		462	697	891	1,018	1,070	1,087
County-Other	(2011 Plan)	4,870	5,384	5,807	6,085	6,197	6,236
County-Other	(2006 Plan)	5,332	6,081	6,698	7,103	7,267	7,323
<i>Increase/(Decrease)</i>		(462)	(697)	(891)	(1,018)	(1,070)	(1,087)
Somervell County Total	(2011 Plan)	7,542	8,393	9,094	9,554	9,740	9,804
Somervell County Total	(2006 Plan)	7,542	8,393	9,094	9,554	9,740	9,804
<i>Increase/(Decrease)</i>		0	0	0	0	0	0
<b><u>Williamson County</u></b>							
Cedar Park	(2011 Plan)	58,665	81,731	88,823	108,018	108,018	108,018
Cedar Park	(2006 Plan)	52,700	73,421	102,705	128,373	154,089	187,931
<i>Increase/(Decrease)</i>		5,965	8,310	(13,882)	(20,355)	(46,071)	(79,913)
Florence	(2011 Plan)	1,364	1,632	1,951	2,298	2,675	3,079
Florence	(2006 Plan)	1,263	1,511	1,806	2,127	2,476	2,850
<i>Increase/(Decrease)</i>		101	121	145	171	199	229
Georgetown	(2011 Plan)	49,112	66,987	88,239	111,348	136,489	163,453
Georgetown	(2006 Plan)	40,888	55,770	73,463	92,702	113,633	136,082
<i>Increase/(Decrease)</i>		8,224	11,217	14,776	18,646	22,856	27,371
Granger	(2011 Plan)	1,561	1,695	1,854	2,027	2,215	2,417
Granger	(2006 Plan)	1,400	1,520	1,663	1,818	1,987	2,168
<i>Increase/(Decrease)</i>		161	175	191	209	228	249
Hutto	(2011 Plan)	12,479	17,153	22,709	28,750	35,317	42,363
Hutto	(2006 Plan)	1,826	2,510	3,323	4,207	5,168	6,199
<i>Increase/(Decrease)</i>		10,653	14,643	19,386	24,543	30,149	36,164
Jarrell	(2011 Plan)	1,433	1,474	1,517	1,561	1,606	1,652
Jarrell	(2006 Plan) ** Not a WUG in the 2006 Plan						
<i>Increase/(Decrease)</i>		1,433	1,474	1,517	1,561	1,606	1,652
Jarrell-Schwertner WSC	(2011 Plan)	2,362	3,596	5,068	6,672	8,420	10,297
Jarrell-Schwertner WSC	(2006 Plan)	3,795	5,070	6,585	8,233	10,026	11,949
<i>Increase/(Decrease)</i>		(1,433)	(1,474)	(1,517)	(1,561)	(1,606)	(1,652)
Leander	(2011 Plan)	22,675	31,803	42,654	54,454	67,291	81,059
Leander	(2006 Plan)	11,499	16,128	21,631	27,615	34,125	41,107
<i>Increase/(Decrease)</i>		11,176	15,675	21,023	26,839	33,166	39,952
Round Rock	(2011 Plan)	104,696	143,328	189,257	239,199	293,531	351,804
Round Rock	(2006 Plan)	87,187	119,358	157,606	199,196	244,442	292,970
<i>Increase/(Decrease)</i>		17,509	23,970	31,651	40,003	49,089	58,834
Taylor	(2011 Plan)	17,935	20,613	23,797	27,259	31,025	35,065
Taylor	(2006 Plan)	15,530	17,849	20,606	23,604	26,865	30,363
<i>Increase/(Decrease)</i>		2,405	2,764	3,191	3,655	4,160	4,702
Thrall	(2011 Plan)	976	1,176	1,415	1,674	1,956	2,258
Thrall	(2006 Plan)	859	1,035	1,245	1,473	1,721	1,987
<i>Increase/(Decrease)</i>		117	141	170	201	235	271

<b>County/City</b>		<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
County-Other	(2011 Plan)	2,379	1,750	2,551	11,961	24,831	32,693
County-Other	(2006 Plan)	2,758	2,187	3,057	12,542	25,493	33,442
<i>Increase/(Decrease)</i>		<i>(379)</i>	<i>(437)</i>	<i>(506)</i>	<i>(581)</i>	<i>(662)</i>	<i>(749)</i>
Williamson County Total	(2011 Plan)	360,086	492,701	626,291	789,743	949,309	1,114,510
Williamson County Total	(2006 Plan)	304,154	416,122	550,146	696,412	855,960	1,027,400
<i>Increase/(Decrease)</i>		<i>55,932</i>	<i>76,579</i>	<i>76,145</i>	<i>93,331</i>	<i>93,349</i>	<i>87,110</i>
Brazos G Total	(2011 Plan)	1,957,767	2,278,243	2,576,783	2,873,382	3,164,777	3,448,879
Brazos G Total	(2006 Plan)	1,882,896	2,168,682	2,458,075	2,739,717	3,034,798	3,332,100
<i>Increase/(Decrease)</i>		<i>74,871</i>	<i>109,561</i>	<i>118,708</i>	<i>133,665</i>	<i>129,979</i>	<i>116,779</i>

**Attachment B**  
**Summary of Municipal Water Demand Changes**

**Summary of Municipal Water Demand Changes (acft/yr)**

<b>County/City</b>		<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
<b><u>Bell County</u></b>							
Harker Heights	(2011 Plan)	3,904	4,959	5,800	6,507	6,698	6,815
Harker Heights	(2006 Plan)	3,676	4,669	5,461	6,127	6,307	6,417
<i>Increase/(Decrease)</i>		228	290	339	380	391	398
Killeen	(2011 Plan)	19,530	25,462	27,985	30,141	32,207	34,432
Killeen	(2006 Plan)	18,031	23,507	25,837	27,827	29,735	31,789
<i>Increase/(Decrease)</i>		1,499	1,955	2,148	2,314	2,472	2,643
Morgans Point Resort	(2011 Plan)	473	520	563	591	607	623
Morgans Point Resort	(2006 Plan)	414	455	493	518	532	546
<i>Increase/(Decrease)</i>		59	65	70	73	75	77
Nolanville	(2011 Plan)	349	359	365	365	369	374
Nolanville	(2006 Plan)	311	320	326	326	329	334
<i>Increase/(Decrease)</i>		38	39	39	39	40	40
County-Other	(2011 Plan)	200	187	174	167	161	159
County-Other	(2006 Plan)	280	276	272	270	267	267
<i>Increase/(Decrease)</i>		(80)	(89)	(98)	(103)	(106)	(108)
Bell County Total	(2011 Plan)	60,039	70,010	76,412	81,485	85,999	90,422
Bell County Total	(2006 Plan)	58,295	67,750	73,914	78,782	83,127	87,372
<i>Increase/(Decrease)</i>		1,744	2,260	2,498	2,703	2,872	3,050
<b><u>Bosque County</u></b>							
Morgan	(2011 Plan)	74	86	99	115	133	156
Morgan	(2006 Plan) ** Not a WUG in the 2006 Plan						
<i>Increase/(Decrease)</i>		74	86	99	115	133	156
Valley Mills	(2011 Plan)	265	295	313	316	319	323
Valley Mills	(2006 Plan)	241	246	248	246	246	247
<i>Increase/(Decrease)</i>		24	49	65	70	73	76
County-Other	(2011 Plan)	718	871	968	990	980	981
County-Other	(2006 Plan)	806	985	1,105	1,147	1,157	1,182
<i>Increase/(Decrease)</i>		(88)	(114)	(137)	(157)	(177)	(201)
Bosque County Total	(2011 Plan)	2,839	3,159	3,369	3,410	3,418	3,468
Bosque County Total	(2006 Plan)	2,829	3,138	3,342	3,382	3,389	3,437
<i>Increase/(Decrease)</i>		10	21	27	28	29	31
<b><u>Callahan County</u></b>							
Clyde	(2011 Plan)	305	297	278	259	245	238
Clyde	(2006 Plan)	271	264	247	230	217	211
<i>Increase/(Decrease)</i>		34	33	31	29	28	27
County-Other	(2011 Plan)	527	513	484	463	440	431
County-Other	(2006 Plan)	563	548	517	494	470	460
<i>Increase/(Decrease)</i>		(36)	(35)	(33)	(31)	(30)	(29)
Callahan County Total	(2011 Plan)	1,445	1,417	1,351	1,296	1,245	1,224
Callahan County Total	(2006 Plan)	1,447	1,419	1,353	1,298	1,247	1,226
<i>Increase/(Decrease)</i>		(2)	(2)	(2)	(2)	(2)	(2)

<b>County/City</b>		<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
<b><u>Eastland County</u></b>							
Eastland	(2011 Plan)	918	908	878	841	806	769
Eastland	(2006 Plan)	863	853	825	790	757	722
<i>Increase/(Decrease)</i>		55	55	53	51	49	47
County-Other	(2011 Plan)	784	767	734	696	660	631
County-Other	(2006 Plan)	816	798	764	724	687	657
<i>Increase/(Decrease)</i>		(32)	(31)	(30)	(28)	(27)	(26)
Eastland County Total	(2011 Plan)	2,962	2,909	2,796	2,662	2,535	2,421
Eastland County Total	(2006 Plan)	2,939	2,885	2,773	2,639	2,513	2,400
<i>Increase/(Decrease)</i>		23	24	23	23	22	21
<b><u>Hamilton County</u></b>							
Hico	(2011 Plan)	302	297	292	288	285	285
Hico	(2006 Plan)	285	281	276	272	269	269
<i>Increase/(Decrease)</i>		17	16	16	16	16	16
County-Other	(2011 Plan)	431	407	384	375	356	355
County-Other	(2006 Plan)	440	416	392	383	364	363
<i>Increase/(Decrease)</i>		(9)	(9)	(8)	(8)	(8)	(8)
Hamilton County Total	(2011 Plan)	1,287	1,246	1,207	1,184	1,154	1,153
Hamilton County Total	(2006 Plan)	1,279	1,239	1,199	1,176	1,146	1,145
<i>Increase/(Decrease)</i>		8	7	8	8	8	8
<b><u>Hill County</u></b>							
Hillsboro	(2011 Plan)	1,819	1,862	1,911	1,957	2,030	2,123
Hillsboro	(2006 Plan)	1,728	1,768	1,815	1,859	1,928	2,017
<i>Increase/(Decrease)</i>		91	94	96	98	102	106
Hubbard	(2011 Plan)	194	188	183	177	173	173
Hubbard	(2006 Plan)	179	174	169	163	160	160
<i>Increase/(Decrease)</i>		15	14	14	14	13	13
Itasca	(2011 Plan)	225	219	212	206	202	201
Itasca	(2006 Plan)	206	201	194	189	185	184
<i>Increase/(Decrease)</i>		19	18	18	17	17	17
Whitney	(2011 Plan)	365	370	375	380	391	405
Whitney	(2006 Plan)	346	350	355	360	370	384
<i>Increase/(Decrease)</i>		19	20	20	20	21	21
County-Other	(2011 Plan)	268	289	317	345	376	413
County-Other	(2006 Plan)	373	394	423	453	486	526
<i>Increase/(Decrease)</i>		(105)	(105)	(106)	(108)	(110)	(113)
Hill County Total	(2011 Plan)	4,901	5,041	5,206	5,372	5,616	5,936
Hill County Total	(2006 Plan)	4,862	5,000	5,164	5,331	5,573	5,892
<i>Increase/(Decrease)</i>		39	41	42	41	43	44

<b>County/City</b>		<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
<b><u>Hood County</u></b>							
Cresson	(2011 Plan)	43	52	62	74	90	110
Cresson	(2006 Plan) ** Not a WUG in the 2006 Plan						
<i>Increase/(Decrease)</i>		43	52	62	74	90	110
deCordova	(2011 Plan)	593	592	591	592	597	608
deCordova	(2006 Plan) ** Not a WUG in the 2006 Plan						
<i>Increase/(Decrease)</i>		593	592	591	592	597	608
Granbury	(2011 Plan)	2,795	3,456	4,058	4,708	5,524	6,485
Granbury	(2006 Plan)	2,369	2,811	3,213	3,651	4,201	4,851
<i>Increase/(Decrease)</i>		426	645	845	1,057	1,323	1,634
Lipan	(2011 Plan)	171	239	333	467	656	924
Lipan	(2006 Plan) ** Not a WUG in the 2006 Plan						
<i>Increase/(Decrease)</i>		171	239	333	467	656	924
Tolar	(2011 Plan)	143	179	213	246	289	342
Tolar	(2006 Plan) ** Not a WUG in the 2006 Plan						
<i>Increase/(Decrease)</i>		143	179	213	246	289	342
County-Other	(2011 Plan)	2,863	3,301	3,689	4,094	4,597	5,184
County-Other	(2006 Plan)	3,734	4,345	4,916	5,539	6,322	7,272
<i>Increase/(Decrease)</i>		(871)	(1,044)	(1,227)	(1,445)	(1,725)	(2,088)
Hood County Total	(2011 Plan)	9,544	11,235	12,801	14,516	16,697	19,337
Hood County Total	(2006 Plan)	9,135	10,666	12,077	13,616	15,557	17,897
<i>Increase/(Decrease)</i>		409	569	724	900	1,140	1,440
<b><u>Johnson County</u></b>							
Alvarado	(2011 Plan)	570	607	654	697	766	858
Alvarado	(2006 Plan)	487	519	559	596	655	733
<i>Increase/(Decrease)</i>		83	88	95	101	111	125
Burleson	(2011 Plan)	4,449	6,687	8,272	8,153	8,096	8,095
Burleson	(2006 Plan)	3,320	3,752	4,240	4,762	5,446	6,326
<i>Increase/(Decrease)</i>		1,129	2,935	4,032	3,391	2,650	1,769
Cleburne	(2011 Plan)	6,027	6,680	7,343	8,097	9,046	9,879
Cleburne	(2006 Plan)	5,748	6,370	7,003	7,722	8,666	9,879
<i>Increase/(Decrease)</i>		279	310	340	375	380	0
Cresson	(2011 Plan)	12	14	17	20	24	29
Cresson	(2006 Plan) ** Not a WUG in the 2006 Plan						
<i>Increase/(Decrease)</i>		12	14	17	20	24	29
Grandview	(2011 Plan)	230	281	342	334	331	331
Grandview	(2006 Plan)	208	219	229	241	259	285
<i>Increase/(Decrease)</i>		22	62	113	93	72	46
Joshua	(2011 Plan)	801	882	968	1,068	1,202	1,377
Joshua	(2006 Plan)	744	819	899	992	1,117	1,279
<i>Increase/(Decrease)</i>		57	63	69	76	85	98
Venus	(2011 Plan)	363	358	349	344	342	342
Venus	(2006 Plan)	282	278	271	267	265	265
<i>Increase/(Decrease)</i>		81	80	78	77	77	77

<b>County/City</b>		<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
County-Other	(2011 Plan)	2,252	2,287	2,323	2,363	2,427	2,517
County-Other	(2006 Plan)	2,776	2,871	2,969	3,076	3,228	3,430
<i>Increase/(Decrease)</i>		<i>(524)</i>	<i>(584)</i>	<i>(646)</i>	<i>(713)</i>	<i>(801)</i>	<i>(913)</i>
Johnson County Total	(2011 Plan)	27,498	33,982	40,146	45,265	51,890	59,286
Johnson County Total	(2006 Plan)	26,359	31,014	36,048	41,845	49,292	58,055
<i>Increase/(Decrease)</i>		<i>1,139</i>	<i>2,968</i>	<i>4,098</i>	<i>3,420</i>	<i>2,598</i>	<i>1,231</i>
<b><u>Lampasas County</u></b>							
Lampasas	(2011 Plan)	1,842	2,016	2,119	2,174	2,223	2,082
Lampasas	(2006 Plan)	1,570	1,583	1,579	1,563	1,563	1,548
<i>Increase/(Decrease)</i>		<i>272</i>	<i>433</i>	<i>540</i>	<i>611</i>	<i>660</i>	<i>534</i>
County-Other	(2011 Plan)	950	966	977	982	986	1,112
County-Other	(2006 Plan)	1,152	1,289	1,385	1,450	1,494	1,529
<i>Increase/(Decrease)</i>		<i>(202)</i>	<i>(323)</i>	<i>(408)</i>	<i>(468)</i>	<i>(508)</i>	<i>(417)</i>
Lampasas County Total	(2011 Plan)	4,537	5,066	5,422	5,662	5,827	5,891
Lampasas County Total	(2006 Plan)	4,467	4,956	5,290	5,519	5,675	5,774
<i>Increase/(Decrease)</i>		<i>70</i>	<i>110</i>	<i>132</i>	<i>143</i>	<i>152</i>	<i>117</i>
<b><u>Limestone County</u></b>							
Kosse	(2011 Plan)	75	75	74	73	73	74
Kosse	(2006 Plan) ** Not a WUG in the 2006 Plan						
<i>Increase/(Decrease)</i>		<i>75</i>	<i>75</i>	<i>74</i>	<i>73</i>	<i>73</i>	<i>74</i>
County-Other	(2011 Plan)	828	765	703	642	594	551
County-Other	(2006 Plan)	883	819	756	693	645	602
<i>Increase/(Decrease)</i>		<i>(55)</i>	<i>(54)</i>	<i>(53)</i>	<i>(51)</i>	<i>(51)</i>	<i>(51)</i>
Limestone County Total	(2011 Plan)	3,313	3,468	3,531	3,566	3,638	3,775
Limestone County Total	(2006 Plan)	3,293	3,447	3,510	3,544	3,616	3,752
<i>Increase/(Decrease)</i>		<i>20</i>	<i>21</i>	<i>21</i>	<i>22</i>	<i>22</i>	<i>23</i>
<b><u>McLennan County</u></b>							
Robinson	(2011 Plan)	1,268	1,462	1,611	1,756	1,857	2,030
Robinson	(2006 Plan)	1,110	1,153	1,182	1,210	1,236	1,291
<i>Increase/(Decrease)</i>		<i>158</i>	<i>309</i>	<i>429</i>	<i>546</i>	<i>621</i>	<i>739</i>
County-Other	(2011 Plan)	6,345	6,332	6,361	6,359	6,384	6,466
County-Other	(2006 Plan)	6,635	6,904	7,167	7,399	7,574	7,881
<i>Increase/(Decrease)</i>		<i>(290)</i>	<i>(572)</i>	<i>(806)</i>	<i>(1,040)</i>	<i>(1,190)</i>	<i>(1,415)</i>
McLennan County Total	(2011 Plan)	46,914	49,741	52,122	54,570	56,158	58,728
McLennan County Total	(2006 Plan)	47,046	50,004	52,499	55,064	56,727	59,404
<i>Increase/(Decrease)</i>		<i>(132)</i>	<i>(263)</i>	<i>(377)</i>	<i>(494)</i>	<i>(569)</i>	<i>(676)</i>
<b><u>Milam County</u></b>							
Cameron	(2011 Plan)	1,606	1,756	1,840	1,881	1,880	1,888
Cameron	(2006 Plan)	1,452	1,433	1,414	1,395	1,382	1,382
<i>Increase/(Decrease)</i>		<i>154</i>	<i>323</i>	<i>426</i>	<i>486</i>	<i>498</i>	<i>506</i>
Milam County Total	(2011 Plan)	4,980	5,291	5,464	5,559	5,560	5,580
Milam County Total	(2006 Plan)	4,826	4,968	5,038	5,073	5,062	5,074
<i>Increase/(Decrease)</i>		<i>154</i>	<i>323</i>	<i>426</i>	<i>486</i>	<i>498</i>	<i>506</i>

<b>County/City</b>		<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
<b><u>Somervell County</u></b>							
Glen Rose	(2011 Plan)	659	728	785	817	830	836
Glen Rose	(2006 Plan)	545	559	572	577	579	581
<i>Increase/(Decrease)</i>		114	169	213	240	251	255
County-Other	(2011 Plan)	481	519	547	559	562	566
County-Other	(2006 Plan)	526	586	630	652	659	664
<i>Increase/(Decrease)</i>		(45)	(67)	(83)	(93)	(97)	(98)
Somervell County Total	(2011 Plan)	1,140	1,247	1,332	1,376	1,392	1,402
Somervell County Total	(2006 Plan)	1,071	1,145	1,202	1,229	1,238	1,245
<i>Increase/(Decrease)</i>		69	102	130	147	154	157
<b><u>Williamson County</u></b>							
Cedar Park	(2011 Plan)	11,961	16,571	17,910	21,779	21,779	21,780
Cedar Park	(2006 Plan)	10,744	14,886	20,708	25,883	31,068	37,892
<i>Increase/(Decrease)</i>		1,217	1,685	(2,798)	(4,104)	(9,289)	(16,112)
Florence	(2011 Plan)	242	283	332	386	447	515
Florence	(2006 Plan)	224	262	307	357	413	476
<i>Increase/(Decrease)</i>		18	21	25	29	34	39
Georgetown	(2011 Plan)	10,342	13,956	18,187	22,826	27,979	33,506
Georgetown	(2006 Plan)	8,610	11,619	15,141	19,003	23,293	27,895
<i>Increase/(Decrease)</i>		1,732	2,337	3,046	3,823	4,686	5,611
Granger	(2011 Plan)	207	219	234	248	268	293
Granger	(2006 Plan)	185	196	209	222	240	262
<i>Increase/(Decrease)</i>		22	23	25	26	28	31
Hutto	(2011 Plan)	1,689	2,290	3,001	3,766	4,627	5,550
Hutto	(2006 Plan)	247	335	439	551	677	812
<i>Increase/(Decrease)</i>		1,442	1,955	2,562	3,215	3,950	4,738
Jarrell	(2011 Plan)	208	210	212	216	219	207
Jarrell	(2006 Plan)	** Not a WUG in the 2006 Plan					
<i>Increase/(Decrease)</i>		208	210	212	216	219	207
Jarrell-Schwertner WSC	(2011 Plan)	479	722	1,006	1,308	1,651	2,019
Jarrell-Schwertner WSC	(2006 Plan)	769	1,017	1,306	1,614	1,965	2,342
<i>Increase/(Decrease)</i>		(290)	(295)	(300)	(306)	(314)	(323)
Leander	(2011 Plan)	3,887	5,380	7,119	9,028	11,156	13,439
Leander	(2006 Plan)	1,971	2,728	3,610	4,578	5,657	6,815
<i>Increase/(Decrease)</i>		1,916	2,652	3,509	4,450	5,499	6,624
Round Rock	(2011 Plan)	23,103	31,146	40,704	51,176	62,801	72,268
Round Rock	(2006 Plan)	19,239	25,937	33,896	42,617	52,298	62,680
<i>Increase/(Decrease)</i>		3,864	5,209	6,808	8,559	10,503	9,588
Taylor	(2011 Plan)	2,913	3,279	3,705	4,183	4,727	5,342
Taylor	(2006 Plan)	2,522	2,839	3,208	3,622	4,093	4,625
<i>Increase/(Decrease)</i>		391	440	497	561	634	717
Thrall	(2011 Plan)	140	165	196	228	263	304
Thrall	(2006 Plan)	123	145	172	200	231	267
<i>Increase/(Decrease)</i>		17	20	24	28	32	37

<b>County/City</b>		<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
County-Other	(2011 Plan)	371	267	378	1,729	3,533	4,651
County-Other	(2006 Plan)	429	333	452	1,812	3,627	4,757
<i>Increase/(Decrease)</i>		<i>(58)</i>	<i>(66)</i>	<i>(74)</i>	<i>(83)</i>	<i>(94)</i>	<i>(106)</i>
Williamson County Total	(2011 Plan)	68,167	92,375	116,187	145,655	174,373	204,294
Williamson County Total	(2006 Plan)	57,688	78,184	102,651	129,241	158,485	190,243
<i>Increase/(Decrease)</i>		<i>10,479</i>	<i>14,191</i>	<i>13,536</i>	<i>16,414</i>	<i>15,888</i>	<i>14,051</i>
Brazos G Total	(2011 Plan)	361,419	417,462	466,106	515,151	565,027	615,483
Brazos G Total	(2006 Plan)	347,389	397,090	444,820	491,312	542,172	595,482
<i>Increase/(Decrease)</i>		<i>14,030</i>	<i>20,372</i>	<i>21,286</i>	<i>23,839</i>	<i>22,855</i>	<i>20,001</i>

**Attachment C**  
**Recommended Steam-Electric Water Demand**  
**Projections**

**Water Demand Projections for Steam-Electric Power Generation in Brazos G (acft/yr)**

County	Source of Projection				2010	2020	2030	2040	2050	2060
	2006 Brazos G Projections	2008 TWDB (BEG) Projections	Diermann/ HDR Projections	Change Based on Comments Received						
Bell	✓				0	3,674	4,296	5,053	5,977	7,102
		✓			0	0	0	0	0	0
Bosque	✓				4,323	6,188	7,235	8,510	10,065	11,961
		✓			1,905	1,355	1,323	2,044	2,223	2,991
Brazos	✓				453	361	422	497	588	698
		✓			526	488	394	446	303	393
Burleson	✓				0	0	0	0	0	0
		✓			0	0	0	0	0	0
Callahan	✓				0	0	0	0	0	0
		✓			0	0	0	0	0	0
Comanche	✓				0	0	0	0	0	0
		✓			0	0	0	0	0	0
Coryell	✓				0	0	0	0	0	0
		✓			0	0	0	0	0	0
Eastland	✓				0	0	0	0	0	0
		✓			0	0	0	0	0	0
Erath	✓				0	0	0	0	0	0
		✓			0	0	0	0	0	0
Falls	✓				0	0	0	0	0	0
		✓			0	0	0	0	0	0
Fisher	✓				0	0	0	0	0	0
		✓			0	0	0	0	0	0
Grimes	✓				9,302	11,768	13,758	16,184	19,141	22,746
		✓			25,968	16,516	14,560	11,093	10,687	11,947
			✓		12,000	31,760	33,160	34,660	36,660	39,660
Hamilton	✓				0	0	0	0	0	0
		✓			0	0	0	0	0	0
Haskell	✓				422	336	393	462	547	650
		✓		✓	0	0	0	0	0	0
Hill	✓				0	0	0	0	0	0
		✓			0	0	0	0	0	0
Hood	✓				6,594	8,098	9,467	11,137	13,172	15,653
		✓			2,922	2,107	2,042	3,122	3,361	4,520
			✓		4,000	5,862	6,853	8,062	9,535	11,331
				✓	5,100	10,200	10,200	10,200	10,200	10,200
Johnson	✓				1,200	1,200	1,200	1,200	1,200	1,200
		✓			418	297	290	449	488	656
			✓		3,500	7,000	7,000	7,000	7,000	7,000
Jones	✓				1,255	1,001	1,170	1,376	1,628	1,935
		✓			359	333	294	396	364	484
				✓	0	0	0	0	0	0
Kent	✓				0	0	0	0	0	0
		✓			0	0	0	0	0	0

County	Source of Projection				2010	2020	2030	2040	2050	2060
	2006 Brazos G Projections	2008 TWDB (BEG) Projections	Diermann/ HDR Projections	Change Based on Comments Received						
Knox	✓				0	0	0	0	0	0
		✓			0	0	0	0	0	0
Lampasas	✓				0	0	0	0	0	0
		✓			0	0	0	0	0	0
Lee	✓				0	0	0	0	0	0
		✓			0	0	0	0	0	0
Limestone	✓				22,332	22,598	26,420	31,079	36,758	43,681
		✓			12,725	11,314	25,507	32,733	44,847	46,899
McLennan	✓				37,098	32,983	35,720	39,056	43,123	48,081
		✓			3,808	11,217	14,305	15,538	17,901	19,142
Milam	✓				8,680	12,500	12,500	12,500	16,000	16,000
		✓			4,057	8,580	16,695	20,401	27,458	28,715
			✓		12,500	12,500	12,500	12,500	16,000	16,000
Nolan	✓				1,315	1,882	2,200	2,588	3,061	3,638
		✓			807	11,311	43,524	63,253	89,903	94,298
			✓		807	11,311	20,000	20,000	20,000	20,000
Palo Pinto	✓				1,365	1,250	1,461	1,719	2,033	2,416
		✓			613	569	501	667	606	805
			✓		840	4,000	4,000	4,000	4,000	4,000
Robertson	✓				28,000	30,000	30,000	35,000	40,000	40,000
		✓			15,789	17,882	31,113	36,369	48,118	50,319
Shackelford	✓				0	0	0	0	0	0
		✓			0	0	0	0	0	0
Somervell	✓				84,817	84,817	84,817	84,817	84,817	84,817
		✓			34,829	76,382	53,861	66,570	96,829	127,089
Stephens	✓				0	0	0	0	0	0
		✓			0	0	0	0	0	0
Stonewall	✓				0	0	0	0	0	0
		✓			0	0	0	0	0	0
Taylor	✓				25	20	24	28	33	39
		✓			0	0	0	0	0	0
Throckmorton	✓				0	0	0	0	0	0
		✓			0	0	0	0	0	0
Washington	✓				0	0	0	0	0	0
		✓			0	0	0	0	0	0
Williamson	✓				0	0	0	0	0	0
		✓			0	0	0	0	0	0
Young	✓				2,170	1,730	2,023	2,379	2,814	3,344
		✓			627	581	515	692	636	846
<b>Total of 2006 Brazos G Projections</b>					209,351	220,406	233,106	253,585	280,957	303,961
<b>Total of 2008 BEG Projections</b>					105,354	158,931	204,925	253,771	343,722	389,104
<b>Total of Projections Recommended for 2011 Plan</b>					168,512	225,365	257,462	272,550	300,613	317,619

**Note:**

Shaded cells represent the steam-electric demand recommended for use in the 2011 Plan.

**Attachment D**  
**Comments Received on Initially Recommended**  
**Steam-Electric Water Demand Projections**



RECEIVED

1044 N. 115 Street, Suite 400  
Omaha, Nebraska 68154-4446  
402-691-9500  
FAX: 402-691-9526

2009 MAY 11 AM 10: 57

BRAZOS RIVER  
AUTHORITY

May 8, 2009

Mr. Trey Buzbee  
Project Manager  
Brazos G Regional Water Planning Group  
P.O. Box 7555  
Waco, Texas 76714-7555

Re: Steam-Electric Demands for 2011 Brazos G Regional Water Plan

Dear Mr. Buzbee:

Thank you for your letter dated April 23, 2009, and the opportunity to comment on the above-referenced document. As you know, Tenaska is currently developing the Tenaska Trailblazer Energy Center ("TTEC") in Nolan County. The TTEC will generate approximately 765 megawatts ("MW") gross and 600 MW net, using best available supercritical steam, pulverized coal technology. The plant will be designed to capture 85 to 90 percent of the carbon dioxide produced during combustion and deliver it via pipeline to Permian Basin oil fields for use in enhanced oil recovery ("EOR") and ultimately, geologic storage. We anticipate that the TTEC will be ready for commercial operation in 2015.

Current design calls for the TTEC to use air cooled condenser technology with an anticipated maximum water demand of about 2,000 acre-feet/year. However, the TTEC design could shift to more efficient and less expensive wet cooling if sufficient water supply can be secured consistent with the other needs of the area. Under the wet cooling case, water usage on the order of 12,000 acre-feet/year would be anticipated.

Although Tenaska currently has no plans to expand the TTEC, for planning purposes, it would be reasonable to assume that the TTEC might expand at some point after commercial operations begins. Consequently, the 20,000 acre-feet/year earmarked for steam-electric demand in Nolan County over the Brazos G plan horizon seems reasonable at this time and allows for future growth in this sector.

Sincerely,

TENASKA

M. Fred Strauss, P.G.  
Director, Environmental Programs

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2009 MAY 18 AM 10: 48

BRAZOS RIVER  
AUTHORITY



**9201 Wolf Hollow Court  
Granbury, TX 76048  
817-579-8201  
Fax 817-579-1190**

May 14, 2009

Trey Buzbee  
Project Manager  
Brazos G Regional Water Planning Group

Mr. Buzbee,

Wolf Hollow has reviewed the Brazos G Regional Water Planning Group's steam-electric demand projections for Wolf Hollow I. The projection listed in Table 1 (Alternative Steam-Electric Demand Projections for Six Brazos G Counties) for year 2010 currently states the projection of 4,000 acre feet.

Based on previous usage, current and predicted capacity factor for the plant, the projected usage for year 2010 should be 5,100 acre feet.

Based on current plans, the projected usage for 2020, 2030, 2040, 2050 and 2060 should 10,200 acre feet.

Please feel free to contact us if there are other questions.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Fleetwood". The signature is fluid and cursive, written over a horizontal line.

Kelly Fleetwood  
Plant Manager

Cc: file

## Trey Buzbee

---

**From:** Young, Eddy [Eddy.Young@optimenergy.com]  
**Sent:** Thursday, May 14, 2009 5:46 AM  
**To:** Trey Buzbee  
**Cc:** Faulkner, George; Rahn, Nick  
**Subject:** Brazos G Water Planning

Trey:

Thanks for taking my call Tuesday concerning the Brazos G water planning information you are working on. As of today (May 14, 2009) Optim Energy nor Twin Oaks is planning any expansion activities that would increase water use in any of the counties mentioned your letter. If we do decide something in the near future I will forward that information to you. Please let me know if you have any questions or need additional information.

Have A Blessed Day

Eddy Young

Environmental Coordinator

Optim Energy LP, Twin Oaks

P.O. Box 37

Bremond, TX 76629

(254) 746-7604 ext. 378 (office)

(254) 746-7159 (fax)

(979) 777-7962 (mobile)

[eddy.young@optimenergy.com](mailto:eddy.young@optimenergy.com)



OPTIMENERGY

**Trey Buzbee**

---

**From:** wgcarter@aep.com  
**Sent:** Friday, May 15, 2009 12:07 PM  
**To:** Trey Buzbee  
**Cc:** mcmccullough@aep.com; chadami@aep.com; tjslater1@aep.com  
**Subject:** Brazos G Steam Electric Estimates

Trey -

I currently serve on the Region D planning group and am coordinating American Electric Power's response to your request for feedback. Please note that I worked with other utility representatives on the 2003 report contracted by TWDB that was the basis for the 2006 steam electric demand, and I had reviewed and provided comments to the Bureau of Economic Geology regarding their estimates. I had concerns over some of the BEG report assumptions and recently completed my own statewide and regional steam electric estimates which are attached below for Region G and which have been provided to the TWDB's Stuart Norvell as well as a number of steam electric reps on select regions. I also have a revised version of my spreadsheet that attempts to account for the higher water demand due to possible future carbon capture requirements. If you are interested in a copy of my work I will be glad to forward it to you.

That being said - my comments regarding the proposed Brazos G estimates are as follows:

- The AEP (formerly West Texas Utilities) plants in Jones, Haskell and Taylor counties have been retired. If you wish, the steam electric demand for those counties may be set to zero. As you are probably aware, for the past several years, the Abilene area has been the focus of significant growth in wind generation which has minimal water demand.

Brazos G Steam Electric Water Demand - assumes no carbon capture

	2000	2006	2010	2020	2030	2040	2050	2060
BELL	0	0	0	863	2,131	2,547	3,045	3,639
BOSQUE	521	821	1,663	563	1,379	1,648	1,970	2,355
BRAZOS	545	588	127	67	112	134	160	191
BURLESON	0	0	0	0	0	0	0	0
CALLAHAN	0	0	0	0	0	0	0	0
COMANCHE	0	0	0	0	0	0	0	0
CORYELL	0	0	0	0	0	0	0	0
EASTLAND	0	0	0	0	0	0	0	0
ERATH	0	0	0	0	0	0	0	0
FALLS	0	0	0	0	0	0	0	0
FISHER	0	0	0	0	0	0	0	0
GRIMES	4,405	7,149	5,988	11,095	13,763	16,451	19,663	23,504
HAMILTON	0	0	0	0	0	0	0	0
HASKELL	507	0	0	0	0	0	0	0
HILL	0	0	0	0	0	0	0	0
HOOD	2,573	2,746	2,526	1,579	3,671	4,389	5,246	6,270
JOHNSON	0	325	665	223	551	659	788	942
JONES	1,510	0	0	0	0	0	0	0
KENT	0	0	0	0	0	0	0	0
KNOX	0	0	0	0	0	0	0	0
LAMPASAS	0	0	0	0	0	0	0	0
LEE	0	0	0	0	0	0	0	0
LIMESTONE	22,065	23,403	22,211	25,622	25,622	30,626	36,607	43,756
MCLENNAN	24,412	427	1,253	12,459	12,874	15,389	18,394	21,987
MILAM	4,048	4,166	8,741	8,741	8,741	10,448	12,488	14,927
NOLAN	1,093	204	0	7,338	7,338	8,771	10,483	12,531
PALO PINTO	1,378	518	357	179	298	356	425	508
ROBERTSON	4,322	4,330	17,223	17,223	17,223	20,586	24,607	29,412
SHACKELFORD	0	0	0	0	0	0	0	0
SOMERVELL	76,505	45,826	44,136	87,464	87,464	104,546	124,964	149,370
STEPHENS	0	0	0	0	0	0	0	0
STONEWALL	0	0	0	0	0	0	0	0
TAYLOR	31	0	0	0	0	0	0	0
THROCKMORTC	0	0	0	0	0	0	0	0
WASHINGTON	0	0	0	0	0	0	0	0
WILLIAMSON (P)	0	0	0	0	0	0	0	0
YOUNG (P)	2,610	556	717	358	597	714	853	1,020
	<b>146,524</b>	<b>91,059</b>	<b>105,607</b>	<b>173,772</b>	<b>181,763</b>	<b>217,262</b>	<b>259,694</b>	<b>310,412</b>

Thanks

W. Greg Carter, P.E.

AEP Region 5 Engineering

e-mail: [wgcarter@aep.com](mailto:wgcarter@aep.com)

Welsh Phone 903-853-4863

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Pirkey Phone 903-927-5896