

Aquilla Water Supply District

P.O. Box 959
Hillsboro, Texas 76645

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September 4, 2009

GENERAL MANAGER

Hon. Dale Spurgin
Chair, Brazos Region G
P. O. Box 148
Anson, Texas 79501-0148

Mr. Phillip J. Ford, General Manager
Brazos River Authority
P.O. Box 7555
Waco, Texas 76714-7555

Re: Brazos G 2011 Regional Water Plan

Gentlemen:

As you are aware, the Aquilla Water Supply District ("District") is a government entity that treats and wholesales water from Aquilla Lake and that is used by three towns and six rural water supply corporations.

Because the District is in the Brazos Region G, we are very interested in the contents of the draft of the Brazos G 2011 Regional Water Plan ("Water Plan"). Of particular interest are the sections that outline population (of Hill County) and, water supply, and water use of the District's customers. In two previous letters that the District wrote to the Brazos G Regional Water Planning Group, we expressed concern over inaccurate projections. Please refer to our previous letters. Once again, we disagree with the conclusions of the draft of the Water Plan related to population, water supply and water use of the District's customers.

Enclosed is a copy of the Population 2000 and Projected Population 2005-2040 data for Hill County from the Texas State Data Center (TxSDC) obtained from the Center for Socioeconomic Research & Education, Department of Recreation, Park and Tourism Sciences at Texas A&M University. The projections forecast the population of Hill County assuming (1) no migration into or out of the area (Scenario 0.0), (2) the same migration rates as 1990 to 2000 (Scenario 1.0), and (3) half the migration rate of 1990 to 2000 (Scenario 0.5). The final scenario employs 2007 estimates and computes migration rates based on these values (Scenario 2000-2007). In each of these projections, the population of Hill County increases from 2000 to 2040. The various models indicate a range for the potential population growth from as little as a 3,842 person increase, to as much as a 32,905 person increase. There is no evidence whatsoever that the population will decrease, as projected in the draft of the 2011 Regional Plan. The projected population growth results in an increase in water demand, rather than the decrease shown in the draft Water Plan.

Another significant inaccuracy in the Water Plan is in the projected available water supply for the District's users. The Water Plan shows a slight decrease in the volume yield of Aquilla Lake of about 10.77% between 2010 and 2060. However, a Brazos River Authority Sediment Study conducted on Aquilla Lake in 2006 reveals the figure to be closer to a 33% drop between 2010 and 2060 (from 11,820 to 7,910

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ac-ft/yr) because of a high siltation rate. Based on a March, 2008 Texas Water Development Board study of Aquilla Lake, Freese and Nichols estimates the volume yield drop to be closer to 23.0% (from 12,805 to 9,798 ac-ft/yr). We recommend that the Water Plan employ a yield for Aquilla Lake that more closely resembles these more accurate models.

If the Water Plan does not accurately reflect the increase in population (and consequently the water demand) of the District's customers, the District's needs would not be accurately reflected in the Water Plan. This could hamper the securing of future state funding. Also, if the Plan does not more accurately reflect the siltation in Aquilla Lake (and the resulting decrease in available water) the consequences to the region and to BRA could be severe. As the siltation in Aquilla Lake continues, the Lake will eventually get to a critically low yield that could result in a regional water shortage.

We acknowledge and appreciate the efforts by the Brazos River Authority to encourage the Corps of Engineers' study to raise the conservation pool elevation in Aquilla Lake. However, this worthy effort is only one component of a needed overall Water Management Strategy to meet the regional water needs. Accurate and reasonable water demand and supply projections are essential planning components that must be used in developing the next Water Plan.

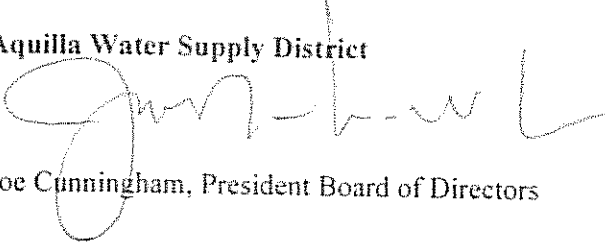
Please accept this letter as a request to note our exception to the population projections and to the projections of water supply and use for the customers of the Aquilla Water Supply District. We would appreciate an acknowledgment that the projections within the latest draft report are inaccurate, and that more realistic values will be used in the final version of the Brazos G 2011 Regional Water Plan.

We request the opportunity to meet with the planning group to discuss our concerns.

Thank you for your timely response on this matter.

Best Regards,

Aquilla Water Supply District



Joe Cunningham, President Board of Directors

cc: James A. Finch, General Manager
AWSD Board of Directors

Wholesale Water Provider Summary
 Aquilla Water Supply District

Projected Demands:

Brazos G Region Water Plan (2012)

Major Water Contract Holders	Year (ac-ft/yr)					
	2010	2020	2030	2040	2050	2060
Brandon-Irene WSC	280	280	280	280	280	229
Chatt WSC (Hill C-O)	84	84	84	84	84	84
Files Valley WSC	1,008	1,008	1,008	1,008	1,008	976
Hill County WSC (Hill C-O)	336	336	336	336	336	259
Hillsboro	4,200	4,200	4,200	4,200	4,200	4,200
Menlow WSC (Hill C-O)	45	45	45	45	45	45
Total Demand	5,953	5,953	5,953	5,953	5,953	5,793

Recommended Projection (Freese and Nichols, Assuming Scenario Growth Rate 1.0)

Major Water Contract Holders	Year (ac-ft/yr)					
	2010	2020	2030	2040	2050	2060
Brandon-Irene WSC	443	527	606	683	758	834
Chatt WSC (Hill C-O)	162	193	222	250	277	305
Files Valley WSC	1254	1492	1716	1932	2147	2362
Hill County WSC (Hill C-O)	597	710	817	920	1022	1124
Hillsboro	1764	2099	2414	2718	3020	3322
Menlow WSC (Hill C-O)	81	96	111	125	139	153
Total Demand	4,301	5,118	5,886	6,628	7,364	8,100

Projected Supply:

Brazos G Region Water Plan (2012)

Source	Year (ac-ft/yr)					
	2010	2020	2030	2040	2050	2060
Aquilla Lake (BRA Contract)	5,828*	5,703	5,578	5,453	5,327	5,202

*Note: the contracted amount to AWSD is 5,953 ac-ft/yr not 5,828 ac-ft/yr

Recommended Projection (Freese and Nichols, assuming 23% drop in yield from 2010 to 2060)

Source	Year (ac-ft/yr)					
	2010	2020	2030	2040	2050	2060
Aquilla Lake (BRA Contract Capacity)	5,953	5,679	5,405	5,131	4,858	4,584

Population 2000 and Projected Population 2005-2040
by Race/Ethnicity and Migration Scenario for Hill County

Darrell Fannin, Computer Systems Analyst
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 of Recreation, Park and Tourism Sciences Texas A&M University
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Scenario 0.0 assumes no migration into or out of the area, also known as Natural Increase which includes only births and deaths. Scenario 1.0 assumes the same migration rates as 1990 to 2000. Scenario 0.5 is half that rate which will slow in or out migration. The 2000 to 2007 scenario uses the State Data Center's 2007 estimates and computes migration rates based on those.

YEAR	TOTAL	ANGLO	BLACK	HISPANIC	OTHER
<u>SCENARIO 0.0</u>					
2000	32,321	25,338	2,428	4,360	195
2005	32,869	25,121	2,628	4,917	203
2010	33,605	25,061	2,844	5,489	211
2015	34,283	25,024	2,989	6,053	217
2020	34,768	24,864	3,089	6,596	219
2025	35,186	24,661	3,178	7,128	219
2030	35,534	24,449	3,260	7,610	215
2035	35,875	24,265	3,341	8,062	207
2040	36,163	24,090	3,398	8,480	195
<u>SCENARIO 0.5</u>					
2000	32,321	25,338	2,428	4,360	195
2005	34,290	26,117	2,653	5,315	205
2010	36,541	27,029	2,862	6,437	213
2015	38,911	27,948	3,015	7,728	220
2020	41,222	28,690	3,122	9,188	222
2025	43,419	29,198	3,218	10,782	221
2030	45,535	29,478	3,294	12,547	216
2035	47,623	29,538	3,383	14,494	208
2040	49,719	29,480	3,420	16,623	196

SCENARIO 1.0

2000	32,321	25,338	2,428	4,360	195
2005	35,807	27,074	2,679	5,849	205
2010	39,731	28,848	2,935	7,735	213
2015	43,919	30,548	3,095	10,051	225
2020	48,272	31,910	3,212	12,924	226
2025	52,551	32,676	3,312	16,336	227
2030	56,699	32,673	3,380	20,424	222
2035	60,866	32,000	3,401	25,247	218
2040	65,226	30,850	3,369	30,796	211

SCENARIO 2000-2007

2000	32,321	25,338	2,428	4,360	195
2005	34,579	26,072	2,702	5,599	206
2010	37,008	26,724	2,968	7,103	213
2015	39,382	27,171	3,144	8,846	221
2020	41,538	27,178	3,277	10,860	223
2025	43,345	26,654	3,373	13,095	223
2030	44,762	25,570	3,465	15,511	216
2035	45,907	24,016	3,532	18,160	199
2040	46,928	22,214	3,549	20,979	186

CITY OF HILLSBORO ANNUAL WATER PURCHASED IN ACRE/FEET

