

To: Stuart Norvell, TWDB	
From: David Dunn, P.E. Emily Reeder, E.I.T.	Project: 2011 Brazos G Regional Water Plan
CC: Matt Nelson, TWDB Trey Buzbee, TWDB	
Date: January 8, 2009	Job No: 100485

RE: Suggested Population Projections for the 2011 Brazos G Regional Water Plan

As we discussed during our meeting at the TWDB on December 11, 2008, we have developed suggested revisions to population projections for specific municipal Water User Groups (WUGs) in the Brazos G Area. We anticipate that the TWDB will take these into consideration as revised population projections are developed by the TWDB for the Brazos G Regional Water Planning Group to consider.

WUGs with suggested revisions can be classified into three categories:

1. New WUGs. These are city WUGs whose populations have grown sufficiently to be included as WUGs in the 2011 Plan. There are six proposed new WUGs, based on information provided by the TWDB, including Morgan (Bosque County), deCordova (Hood County), Lipan (Hood County), Cresson (Hood and Johnson Counties), and Kosse (Limestone County). Cresson is primarily located in Region C. The proposed population projections for these new WUGs were generated by TWDB staff.
2. 5% WUGs. These are city WUGs for which the 2007 population estimated by the Texas State Data Center exceeds by 5% or more the 2007 population estimated with a straight-line interpolation between the 2000 and 2010 decadal estimates used in the 2006 Plan. There are 27 5% WUGs located outside of Johnson County. The proposed population projections for these WUGs were generated by TWDB staff.
3. Johnson County WUGs. These are city and non-city WUGs located in Johnson County for which the recently completed Four-County Study conducted by Region C (assisted by Brazos G) recommends increases in the population projections. A few of these WUGs also meet the "5% in 2007" criteria, but are excluded from the list of 5% WUGs because they are located in Johnson County and are part of the Four-County Study.

Attached is an Excel spreadsheet containing alternative population projections for WUGs in the Brazos G Area. All WUGs in Brazos G are included in the spreadsheet; those for which revisions are proposed are highlighted. We attempted to draw the increases in population for specific WUGs entirely from County-Other population in the county where the WUG is located. We constrained this approach by requiring that at least 50% of the year 2000 County-Other population remain in each decade.

For the six *New WUGs*, all of the population projections were able to be drawn from County-Other except for the City of Jarrell, for which the population was drawn from the Jarrell-Schwertner WSC.

The majority of the 27 5% WUGs were able to have their increases drawn from County-Other while allowing 50% of the year 2000 County-Other population to remain. These WUGs are located in the following counties: Bosque, Callahan, Eastland, Hamilton, Hill, Hood, Lampasas, McLennan, and Somervell. Sufficient County-Other population does not exist in Bell, Milam and Williamson Counties to shift to the 5% WUGs, and we recommend that the overall population projections in these counties simply be increased.

The Four-County Study recommends that the population projections be modified for 11 *Johnson County WUGs*, and provides revised projections through 2030. The Four-County Study recommends that the projections for Parker WSC, located partially in Johnson County, be reduced starting in year 2020. There is not sufficient Johnson County-Other population to shift and accommodate these increases, and we recommend that the overall population projections in Johnson County be increased to accommodate the Four-County Study projections. For decades after 2030, we held the projections for these 11 *Johnson County WUGs* constant at the 2030 projection unless a 2040-2060 projection in the 2006 Plan projection was greater than the 2030. This is the case for Bethany WSC, City of Cleburne, Johnson County SUD (combined with Johnson County FWSD), Mountain Peak WSC, and Parker WSC. A special case involves the City of Mansfield, which is also located in Tarrant and Ellis Counties in Region C. The City of Mansfield believes that the majority of their growth will occur in Johnson County (Brazos G) and not in Tarrant and Ellis Counties (Region C). We suggest that most of the recommended population increases for Mansfield be drawn from the City of Mansfield projections in Tarrant and Ellis Counties in Region C. Mansfield accounts for 37,827 of the total 116,878 increase for Johnson County in 2030.

These projections will result in overall regional increases ranging from 4.17% in 2010 to 8.51% in 2030. The following table summarizes the proposed increases in the regional total, which are due solely to increases in Bell, Williamson, Johnson, and Milam Counties that cannot be accommodated with County-Other population.

On behalf of the Brazos G Regional Water Planning Group, thank you for considering these suggested revisions to the population projections to be used for the 2011 Plan. We anticipate that the TWDB will provide a set of revised population projections for the Brazos G Regional Water Planning Group to consider at its February meeting.

Please feel free to contact me at (512) 912-5136 if you have any questions.

Table 1. Suggested Population Revisions for Bell, Williamson, Johnson, and Milam Counties

	2010	2020	2030	2040	2050	2060
Bell County						
2006 Plan	279,313	315,766	351,336	381,839	408,408	432,418
Suggested 2011 Plan	290,193	328,200	365,285	397,171	424,974	450,198
Increase	10,880	12,434	13,949	15,332	16,566	17,780
Williamson County						
2006 Plan	304,154	416,122	550,146	696,412	855,960	1,027,400
Suggested 2011 Plan	360,465	493,138	626,797	790,324	949,971	1,115,259
Increase	56,311	77,016	76,651	93,912	94,011	87,859
Johnson County						
2006 Plan	151,468	180,509	211,020	244,349	285,700	336,431
Suggested 2011 Plan	162,236	242,627	327,898	337,452	354,799	395,722
Increase	10,768	62,118	116,878	93,103	69,099	59,291
Milam County						
2006 Plan	25,456	26,820	27,699	28,239	28,376	28,437
Suggested 2011 Plan	26,053	27,907	29,396	30,201	30,405	30,496
Increase	597	1,087	1,697	1,962	2,029	2,059
Regional Total - 2006 Plan	1,882,896	2,168,682	2,458,075	2,739,717	3,034,798	3,332,100
Suggested Increase	78,556	152,655	209,175	204,309	181,705	166,989
Suggested Regional Total - 2011 Plan	1,961,452	2,321,337	2,667,250	2,944,026	3,216,503	3,499,089
% Increase	4.17%	7.04%	8.51%	7.46%	5.99%	5.01%