

DRAFT MEMORANDUM



Innovative approaches
Practical results
Outstanding service

4055 International Plaza, Suite 200 • Fort Worth, Texas 76109 • 817-735-7300 • fax 817-735-7491 • www.freeze.com

TO: Texas Water Development Board

CC: File – NTD08492-2.30.2

FROM: Thomas C. Gooch, P.E. and Amy D. Kaarlela

SUBJECT: Revisions to Region C Population and Demand Projections

DATE: September 3, 2009

DRAFT
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF THOMAS C. GOOCH, P.E., TEXAS NO. 50668 ON SEPTEMBER 3, 2009. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.
FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F- 2144

This memorandum addresses Task 2 for the 2011 Region C Water Plan, “Review and Revision of Population and Water Demand Projections”. This memo contains descriptions of FNI’s suggested revisions to overall population and demand projections.

Population

Table 1 shows the population projections by decade from the *2006 Region C Plan* and our suggested revisions to those projections. Details of the population revisions have been outlined in a separate memorandum (Attachment 1).

Table 1
Region C Population Projections

	2010	2020	2030	2040	2050	2060
2006 Plan	6,625,282	7,966,389	9,093,847	10,246,795	11,559,990	13,087,849
Revised 2011 Plan	6,670,493	7,971,728	9,171,650	10,399,038	11,645,686	13,045,592

Demand

Table 2 shows the demand projections by decade from the *2006 Region C Plan* and our suggested revisions to those projections. Details of the municipal demand projections have been outlined in the memorandum with the population projections (Attachment 1). In addition, there are separate technical memoranda (Attachments 2 through 6) for each category of demand in Table 2. The demand projections for manufacturing, irrigation, and livestock have not been changed from the *2006 Region C Plan*. The steam electric power demands projections have been

revised based on our analysis of the projections from the *2006 Region C Plan*, projections from the recent Bureau of Economic Geology report, and anticipated new facilities. The mining projections have been revised based on recent additional mining water use associated with Barnett Shale oil and gas activities.

Table 2
Region C Demand Projections
(in acre-feet/year)

	2010	2020	2030	2040	2050	2060
2006 Plan						
Municipal	1,534,703	1,828,831	2,060,118	2,294,491	2,574,265	2,915,773
Manufacturing	72,026	81,273	90,010	98,486	105,808	110,597
Steam Electric	71,471	95,640	110,542	128,709	150,855	177,848
Irrigation	40,776	40,966	41,165	41,373	41,596	41,831
Livestock	19,248	19,248	19,248	19,248	19,248	19,248
Mining	30,240	34,561	37,350	40,206	43,155	45,920
TOTAL	1,768,464	2,100,519	2,358,433	2,622,513	2,934,927	3,311,217
2011 Revisions						
Municipal	1,547,329	1,834,472	2,089,198	2,346,678	2,615,140	2,927,200
Manufacturing	72,026	81,273	90,010	98,486	105,808	110,597
Steam Electric	40,813	64,625	98,088	107,394	116,058	126,428
Irrigation	40,776	40,966	41,165	41,373	41,596	41,831
Livestock	19,248	19,248	19,248	19,248	19,248	19,248
Mining	41,520	38,961	41,630	44,486	47,435	50,200
TOTAL	1,761,712	2,079,545	2,379,339	2,657,665	2,945,285	3,275,504
Change from 2006 Plan						
Municipal	12,626	5,641	29,080	52,187	40,875	11,427
Manufacturing	0	0	0	0	0	0
Steam Electric	-30,658	-31,015	-12,454	-21,315	-34,797	-51,420
Irrigation	0	0	0	0	0	0
Livestock	0	0	0	0	0	0
Mining	11,280	4,400	4,280	4,280	4,280	4,280
TOTAL	-6,752	-20,974	20,906	35,152	10,358	-35,713