

Memorandum

DATE: April 21, 2011
TO: Andrew Lynn – CDM; 10-41025.0 File 3C
CC: Nashville
FROM: Bo Butler
RE: Franklin Reclaimed System Storage – ultimate demand
 Houston

Fort Lauderdale

As requested, we have analyzed the actual reclaimed distribution system data from 2010 and projected the ultimate flows, based on the previously submitted demand tables. Assumptions:

Sarasota

1. The reclaimed water pump station is configured to deliver 12 GMD to the distribution system.
2. There are no existing significant storage areas within the system.
 - a. There is one 500,000 gallon tank available for the system in the Goose Creek area. This tank is assumed to provide additional pressure as required, but minimal volume.
3. 2010 demands were factored by 4.5 to bring the maximum daily demand during the dry season to approximately 15 MGD.

Memphis

Phoenix

Dallas

The existing demands as shown in Table 2 of the previously submitted demand memo, attached, can be accommodated by the reclaimed water pump station in its present 6MGD configuration. (The station has been shown to accommodate up to 7 MGD as configured.)

Demands were updated to include additional properties in the Cool Springs area as well as to accommodate previously undeveloped properties city-wide, and updated incremental demand flows. These demands are shown in Table 3 of the attached memo. The projected average day demand is show to be approximately 5.3 MGD, and the maximum demand is approximately 15 MGD.

The actual demands from year 2010 were used and factored to created a typical yearly flow scenario for the system as shown in the table titled Projected Ultimate Flows, attached. The chart titles Excess Supply shows the graphical representation of supply less demand for each day of the projected ultimate year. The dry periods of the year were analyzed and the supply deficit volumes were calculated to find the greatest storage requirement for the year. The data shows that, from the middle of July through the end of October, a deficit of approximately 240 million gallons exists. This storage volume would need to be provided to accommodate the projected demands to the system as shown in Table 3, assuming no additional pumping capacity is provided.

Page 2 of 2

It is assumed that storage would take place at the Water Reclamation Facility as well as at Forest Crossing Golf Course, Legends Club Golf Course and the Westhaven Golf Course. The volumes of the storage lakes at these facilities is unknown at this time.

**City of Franklin Reclaimed Water Distribution
Projected Ultimate Flows**

Month	Day	Demand Gallons	Supply Gallons	Difference Gallons	Cumulative Supply
January	1	855,000	12,000,000	11,145,000	11,145,000
	2	675,000	12,000,000	11,325,000	22,470,000
	3	315,000	12,000,000	11,685,000	34,155,000
	4	3,015,000	12,000,000	8,985,000	43,140,000
	5	2,970,000	12,000,000	9,030,000	52,170,000
	6	4,905,000	12,000,000	7,095,000	59,265,000
	7	4,995,000	12,000,000	7,005,000	66,270,000
	8	4,770,000	12,000,000	7,230,000	73,500,000
	9	4,905,000	12,000,000	7,095,000	80,595,000
	10	5,130,000	12,000,000	6,870,000	87,465,000
	11	5,265,000	12,000,000	6,735,000	94,200,000
	12	2,115,000	12,000,000	9,885,000	104,085,000
	13	540,000	12,000,000	11,460,000	115,545,000
	14	720,000	12,000,000	11,280,000	126,825,000
	15	990,000	12,000,000	11,010,000	137,835,000
	16	1,035,000	12,000,000	10,965,000	148,800,000
	17	585,000	12,000,000	11,415,000	160,215,000
	18	2,295,000	12,000,000	9,705,000	169,920,000
	19	765,000	12,000,000	11,235,000	181,155,000
	20	4,275,000	12,000,000	7,725,000	188,880,000
	21	2,475,000	12,000,000	9,525,000	198,405,000
	22	585,000	12,000,000	11,415,000	209,820,000
	23	4,185,000	12,000,000	7,815,000	217,635,000
	24	2,925,000	12,000,000	9,075,000	226,710,000
	25	180,000	12,000,000	11,820,000	238,530,000
	26	135,000	12,000,000	11,865,000	250,395,000
	27	180,000	12,000,000	11,820,000	262,215,000
	28	225,000	12,000,000	11,775,000	273,990,000
	29	225,000	12,000,000	11,775,000	285,765,000
	30	225,000	12,000,000	11,775,000	297,540,000
	31	225,000	12,000,000	11,775,000	309,315,000
February	1	225,000	12,000,000	11,775,000	321,090,000
	2	135,000	12,000,000	11,865,000	332,955,000
	3	90,000	12,000,000	11,910,000	344,865,000
	4	90,000	12,000,000	11,910,000	356,775,000
	5	90,000	12,000,000	11,910,000	368,685,000
	6	90,000	12,000,000	11,910,000	380,595,000
	7	90,000	12,000,000	11,910,000	392,505,000
	8	225,000	12,000,000	11,775,000	404,280,000
	9	270,000	12,000,000	11,730,000	416,010,000
	10	270,000	12,000,000	11,730,000	427,740,000
	11	270,000	12,000,000	11,730,000	439,470,000
	12	225,000	12,000,000	11,775,000	451,245,000
	13	225,000	12,000,000	11,775,000	463,020,000
	14	225,000	12,000,000	11,775,000	474,795,000
	15	225,000	12,000,000	11,775,000	486,570,000
	16	90,000	12,000,000	11,910,000	498,480,000
	17	90,000	12,000,000	11,910,000	510,390,000
	18	45,000	12,000,000	11,955,000	522,345,000
	19	135,000	12,000,000	11,865,000	534,210,000
	20	135,000	12,000,000	11,865,000	546,075,000
	21	135,000	12,000,000	11,865,000	557,940,000
	22	90,000	12,000,000	11,910,000	569,850,000
	23	855,000	12,000,000	11,145,000	580,995,000
	24	1,395,000	12,000,000	10,605,000	591,600,000
	25	1,395,000	12,000,000	10,605,000	602,205,000

	26	1,395,000	12,000,000	10,605,000	612,810,000
	27	1,395,000	12,000,000	10,605,000	623,415,000
	28	1,395,000	12,000,000	10,605,000	634,020,000
March	1	1,620,000	12,000,000	10,380,000	644,400,000
	2	360,000	12,000,000	11,640,000	656,040,000
	3	1,575,000	12,000,000	10,425,000	666,465,000
	4	4,410,000	12,000,000	7,590,000	674,055,000
	5	4,185,000	12,000,000	7,815,000	681,870,000
	6	4,095,000	12,000,000	7,905,000	689,775,000
	7	4,185,000	12,000,000	7,815,000	697,590,000
	8	4,590,000	12,000,000	7,410,000	705,000,000
	9	5,670,000	12,000,000	6,330,000	711,330,000
	10	5,175,000	12,000,000	6,825,000	718,155,000
	11	5,355,000	12,000,000	6,645,000	724,800,000
	12	3,150,000	12,000,000	8,850,000	733,650,000
	13	2,925,000	12,000,000	9,075,000	742,725,000
	14	3,645,000	12,000,000	8,355,000	751,080,000
	15	8,460,000	12,000,000	3,540,000	754,620,000
	16	10,305,000	12,000,000	1,695,000	756,315,000
	17	9,675,000	12,000,000	2,325,000	758,640,000
	18	4,680,000	12,000,000	7,320,000	765,960,000
	19	5,445,000	12,000,000	6,555,000	772,515,000
	20	4,815,000	12,000,000	7,185,000	779,700,000
	21	4,680,000	12,000,000	7,320,000	787,020,000
	22	3,645,000	12,000,000	8,355,000	795,375,000
	23	5,220,000	12,000,000	6,780,000	802,155,000
	24	5,445,000	12,000,000	6,555,000	808,710,000
	25	4,455,000	12,000,000	7,545,000	816,255,000
	26	5,535,000	12,000,000	6,465,000	822,720,000
	27	5,175,000	12,000,000	6,825,000	829,545,000
	28	4,995,000	12,000,000	7,005,000	836,550,000
	29	5,220,000	12,000,000	6,780,000	843,330,000
	30	5,220,000	12,000,000	6,780,000	850,110,000
	31	5,760,000	12,000,000	6,240,000	856,350,000
April	1	5,445,000	12,000,000	6,555,000	862,905,000
	2	5,310,000	12,000,000	6,690,000	869,595,000
	3	4,500,000	12,000,000	7,500,000	877,095,000
	4	5,130,000	12,000,000	6,870,000	883,965,000
	5	3,150,000	12,000,000	8,850,000	892,815,000
	6	8,865,000	12,000,000	3,135,000	895,950,000
	7	4,905,000	12,000,000	7,095,000	903,045,000
	8	4,905,000	12,000,000	7,095,000	910,140,000
	9	5,265,000	12,000,000	6,735,000	916,875,000
	10	5,220,000	12,000,000	6,780,000	923,655,000
	11	8,055,000	12,000,000	3,945,000	927,600,000
	12	9,630,000	12,000,000	2,370,000	929,970,000
	13	9,585,000	12,000,000	2,415,000	932,385,000
	14	10,665,000	12,000,000	1,335,000	933,720,000
	15	10,350,000	12,000,000	1,650,000	935,370,000
	16	6,840,000	12,000,000	5,160,000	940,530,000
	17	10,800,000	12,000,000	1,200,000	941,730,000
	18	13,095,000	12,000,000	-1,095,000	940,635,000
	19	13,680,000	12,000,000	-1,680,000	938,955,000
	20	13,005,000	12,000,000	-1,005,000	937,950,000
	21	11,880,000	12,000,000	120,000	938,070,000
	22	11,970,000	12,000,000	30,000	938,100,000
	23	10,260,000	12,000,000	1,740,000	939,840,000
	24	8,460,000	12,000,000	3,540,000	943,380,000
	25	8,325,000	12,000,000	3,675,000	947,055,000
	26	6,165,000	12,000,000	5,835,000	952,890,000
	27	5,760,000	12,000,000	6,240,000	959,130,000
	28	5,940,000	12,000,000	6,060,000	965,190,000

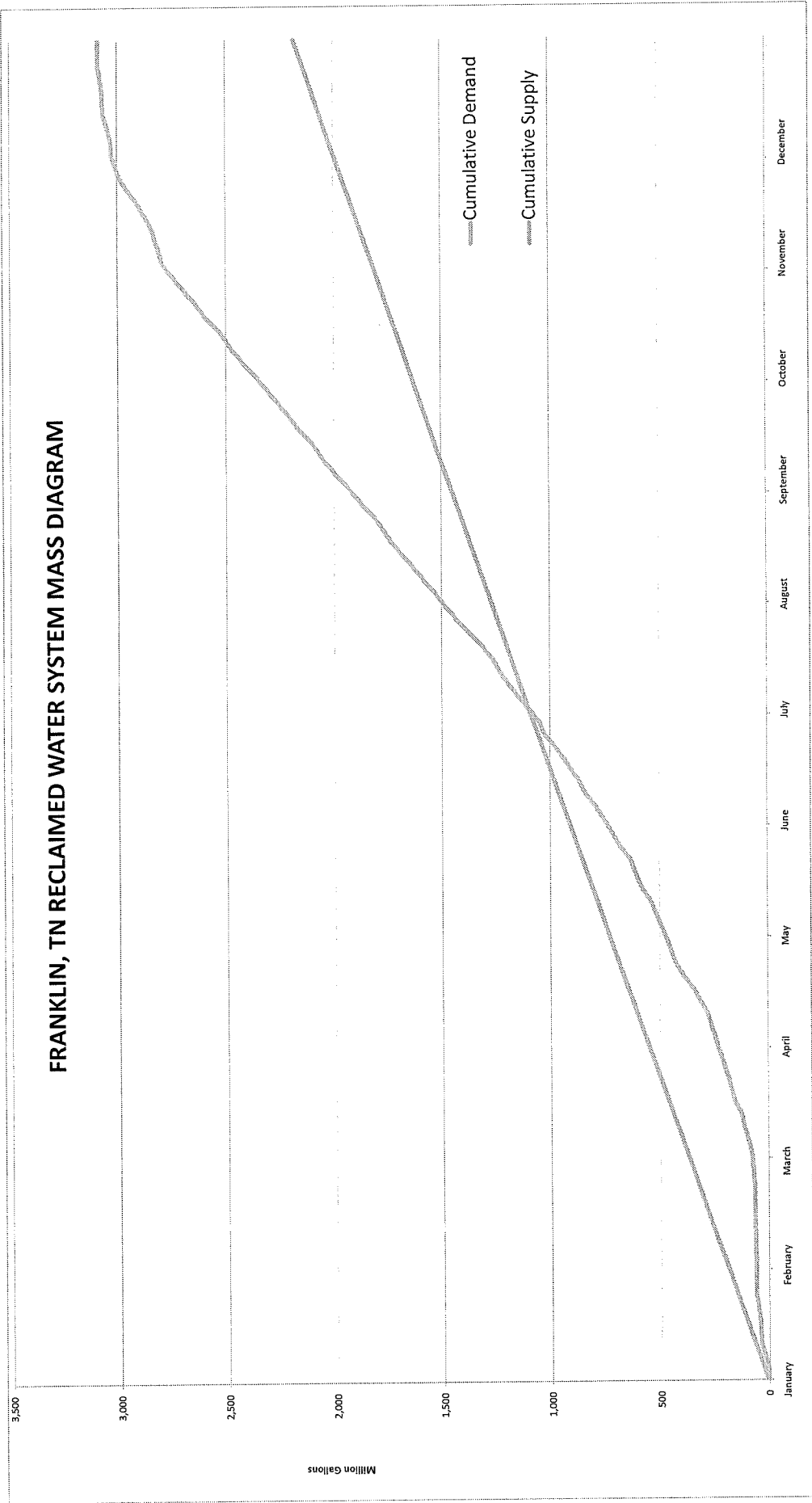
	29	5,985,000	12,000,000	6,015,000	971,205,000	
	30	6,615,000	12,000,000	5,385,000	976,590,000	
May	1	7,425,000	12,000,000	4,575,000	981,165,000	
	2	7,560,000	12,000,000	4,440,000	985,605,000	
	3	7,065,000	12,000,000	4,935,000	990,540,000	
	4	7,605,000	12,000,000	4,395,000	994,935,000	
	5	6,480,000	12,000,000	5,520,000	1,000,455,000	
	6	7,200,000	12,000,000	4,800,000	1,005,255,000	
	7	6,930,000	12,000,000	5,070,000	1,010,325,000	
	8	6,705,000	12,000,000	5,295,000	1,015,620,000	
	9	6,660,000	12,000,000	5,340,000	1,020,960,000	
	10	6,435,000	12,000,000	5,565,000	1,026,525,000	
	11	9,990,000	12,000,000	2,010,000	1,028,535,000	
	12	11,700,000	12,000,000	300,000	1,028,835,000	
	13	12,240,000	12,000,000	-240,000	1,028,595,000	
	14	9,405,000	12,000,000	2,595,000	1,031,190,000	
	15	9,135,000	12,000,000	2,865,000	1,034,055,000	
	16	9,180,000	12,000,000	2,820,000	1,036,875,000	
	17	6,255,000	12,000,000	5,745,000	1,042,620,000	
	18	6,660,000	12,000,000	5,340,000	1,047,960,000	
	19	6,525,000	12,000,000	5,475,000	1,053,435,000	
	20	6,570,000	12,000,000	5,430,000	1,058,865,000	
	21	6,390,000	12,000,000	5,610,000	1,064,475,000	
	22	6,435,000	12,000,000	5,565,000	1,070,040,000	
	23	12,375,000	12,000,000	-375,000	1,069,665,000	
	24	13,590,000	12,000,000	-1,590,000	1,068,075,000	
	25	13,860,000	12,000,000	-1,860,000	1,066,215,000	-3,825,000
	26	11,115,000	12,000,000	885,000	1,067,100,000	
	27	10,035,000	12,000,000	1,965,000	1,069,065,000	
	28	9,720,000	12,000,000	2,280,000	1,071,345,000	
	29	9,900,000	12,000,000	2,100,000	1,073,445,000	
	30	9,990,000	12,000,000	2,010,000	1,075,455,000	
	31	9,720,000	12,000,000	2,280,000	1,077,735,000	
June	1	10,215,000	12,000,000	1,785,000	1,079,520,000	
	2	11,655,000	12,000,000	345,000	1,079,865,000	
	3	10,440,000	12,000,000	1,560,000	1,081,425,000	
	4	10,530,000	12,000,000	1,470,000	1,082,895,000	
	5	10,665,000	12,000,000	1,335,000	1,084,230,000	
	6	12,375,000	12,000,000	-375,000	1,083,855,000	
	7	12,870,000	12,000,000	-870,000	1,082,985,000	
	8	14,760,000	12,000,000	-2,760,000	1,080,225,000	-4,005,000
	9	10,800,000	12,000,000	1,200,000	1,081,425,000	
	10	9,630,000	12,000,000	2,370,000	1,083,795,000	
	11	8,325,000	12,000,000	3,675,000	1,087,470,000	
	12	8,280,000	12,000,000	3,720,000	1,091,190,000	
	13	9,225,000	12,000,000	2,775,000	1,093,965,000	
	14	12,600,000	12,000,000	-600,000	1,093,365,000	
	15	13,860,000	12,000,000	-1,860,000	1,091,505,000	
	16	12,060,000	12,000,000	-60,000	1,091,445,000	
	17	10,575,000	12,000,000	1,425,000	1,092,870,000	
	18	9,900,000	12,000,000	2,100,000	1,094,970,000	
	19	11,970,000	12,000,000	30,000	1,095,000,000	
	20	11,070,000	12,000,000	930,000	1,095,930,000	
	21	12,240,000	12,000,000	-240,000	1,095,690,000	
	22	14,850,000	12,000,000	-2,850,000	1,092,840,000	
	23	15,480,000	12,000,000	-3,480,000	1,089,360,000	
	24	14,715,000	12,000,000	-2,715,000	1,086,645,000	-9,285,000
	25	11,700,000	12,000,000	300,000	1,086,945,000	
	26	9,315,000	12,000,000	2,685,000	1,089,630,000	
	27	5,400,000	12,000,000	6,600,000	1,096,230,000	
	28	6,390,000	12,000,000	5,610,000	1,101,840,000	
	29	13,050,000	12,000,000	-1,050,000	1,100,790,000	

	30	12,465,000	12,000,000	-465,000	1,100,325,000	
July	1	13,410,000	12,000,000	-1,410,000	1,098,915,000	
	2	14,490,000	12,000,000	-2,490,000	1,096,425,000	
	3	13,635,000	12,000,000	-1,635,000	1,094,790,000	
	4	14,085,000	12,000,000	-2,085,000	1,092,705,000	
	5	13,635,000	12,000,000	-1,635,000	1,091,070,000	
	6	15,030,000	12,000,000	-3,030,000	1,088,040,000	
	7	14,850,000	12,000,000	-2,850,000	1,085,190,000	
	8	14,490,000	12,000,000	-2,490,000	1,082,700,000	
	9	10,755,000	12,000,000	1,245,000	1,083,945,000	
	10	13,140,000	12,000,000	-1,140,000	1,082,805,000	
	11	12,645,000	12,000,000	-645,000	1,082,160,000	-19,680,000
	12	10,800,000	12,000,000	1,200,000	1,083,360,000	
	13	8,370,000	12,000,000	3,630,000	1,086,990,000	
	14	8,595,000	12,000,000	3,405,000	1,090,395,000	
	15	10,800,000	12,000,000	1,200,000	1,091,595,000	
	16	12,195,000	12,000,000	-195,000	1,091,400,000	
	17	13,635,000	12,000,000	-1,635,000	1,089,765,000	
	18	14,580,000	12,000,000	-2,580,000	1,087,185,000	
	19	15,300,000	12,000,000	-3,300,000	1,083,885,000	
	20	15,705,000	12,000,000	-3,705,000	1,080,180,000	
	21	16,920,000	12,000,000	-4,920,000	1,075,260,000	
	22	17,100,000	12,000,000	-5,100,000	1,070,160,000	
	23	16,245,000	12,000,000	-4,245,000	1,065,915,000	
	24	16,740,000	12,000,000	-4,740,000	1,061,175,000	
	25	17,010,000	12,000,000	-5,010,000	1,056,165,000	
	26	16,515,000	12,000,000	-4,515,000	1,051,650,000	
	27	12,735,000	12,000,000	-735,000	1,050,915,000	
	28	14,220,000	12,000,000	-2,220,000	1,048,695,000	
	29	14,535,000	12,000,000	-2,535,000	1,046,160,000	
	30	13,905,000	12,000,000	-1,905,000	1,044,255,000	
	31	13,770,000	12,000,000	-1,770,000	1,042,485,000	
August	1	13,005,000	12,000,000	-1,005,000	1,041,480,000	
	2	13,815,000	12,000,000	-1,815,000	1,039,665,000	
	3	15,660,000	12,000,000	-3,660,000	1,036,005,000	
	4	15,840,000	12,000,000	-3,840,000	1,032,165,000	
	5	15,660,000	12,000,000	-3,660,000	1,028,505,000	
	6	12,105,000	12,000,000	-105,000	1,028,400,000	
	7	12,690,000	12,000,000	-690,000	1,027,710,000	
	8	13,770,000	12,000,000	-1,770,000	1,025,940,000	
	9	15,615,000	12,000,000	-3,615,000	1,022,325,000	
	10	15,210,000	12,000,000	-3,210,000	1,019,115,000	
	11	14,670,000	12,000,000	-2,670,000	1,016,445,000	
	12	14,625,000	12,000,000	-2,625,000	1,013,820,000	
	13	15,165,000	12,000,000	-3,165,000	1,010,655,000	
	14	14,895,000	12,000,000	-2,895,000	1,007,760,000	
	15	15,390,000	12,000,000	-3,390,000	1,004,370,000	
	16	14,580,000	12,000,000	-2,580,000	1,001,790,000	
	17	11,430,000	12,000,000	570,000	1,002,360,000	
	18	10,170,000	12,000,000	1,830,000	1,004,190,000	
	19	11,385,000	12,000,000	615,000	1,004,805,000	
	20	11,025,000	12,000,000	975,000	1,005,780,000	
	21	11,295,000	12,000,000	705,000	1,006,485,000	
	22	13,005,000	12,000,000	-1,005,000	1,005,480,000	
	23	14,580,000	12,000,000	-2,580,000	1,002,900,000	
	24	15,885,000	12,000,000	-3,885,000	999,015,000	
	25	15,480,000	12,000,000	-3,480,000	995,535,000	
	26	15,795,000	12,000,000	-3,795,000	991,740,000	
	27	13,725,000	12,000,000	-1,725,000	990,015,000	
	28	14,265,000	12,000,000	-2,265,000	987,750,000	
	29	14,805,000	12,000,000	-2,805,000	984,945,000	
	30	12,870,000	12,000,000	-870,000	984,075,000	

	31	15,300,000	12,000,000	-3,300,000	980,775,000	
September	1	15,525,000	12,000,000	-3,525,000	977,250,000	
	2	17,235,000	12,000,000	-5,235,000	972,015,000	
	3	15,075,000	12,000,000	-3,075,000	968,940,000	
	4	13,680,000	12,000,000	-1,680,000	967,260,000	
	5	14,175,000	12,000,000	-2,175,000	965,085,000	
	6	14,130,000	12,000,000	-2,130,000	962,955,000	
	7	14,850,000	12,000,000	-2,850,000	960,105,000	
	8	12,960,000	12,000,000	-960,000	959,145,000	
	9	11,745,000	12,000,000	255,000	959,400,000	
	10	10,710,000	12,000,000	1,290,000	960,690,000	
	11	12,195,000	12,000,000	-195,000	960,495,000	
	12	13,365,000	12,000,000	-1,365,000	959,130,000	
	13	15,615,000	12,000,000	-3,615,000	955,515,000	
	14	16,020,000	12,000,000	-4,020,000	951,495,000	
	15	16,200,000	12,000,000	-4,200,000	947,295,000	
	16	15,075,000	12,000,000	-3,075,000	944,220,000	
	17	14,085,000	12,000,000	-2,085,000	942,135,000	
	18	12,645,000	12,000,000	-645,000	941,490,000	
	19	13,365,000	12,000,000	-1,365,000	940,125,000	
	20	14,310,000	12,000,000	-2,310,000	937,815,000	
	21	14,175,000	12,000,000	-2,175,000	935,640,000	
	22	14,265,000	12,000,000	-2,265,000	933,375,000	
	23	14,310,000	12,000,000	-2,310,000	931,065,000	
	24	14,400,000	12,000,000	-2,400,000	928,665,000	
	25	14,220,000	12,000,000	-2,220,000	926,445,000	
	26	13,680,000	12,000,000	-1,680,000	924,765,000	
	27	12,555,000	12,000,000	-555,000	924,210,000	
	28	15,120,000	12,000,000	-3,120,000	921,090,000	
	29	14,985,000	12,000,000	-2,985,000	918,105,000	
	30	14,940,000	12,000,000	-2,940,000	915,165,000	
October	1	15,525,000	12,000,000	-3,525,000	911,640,000	
	2	17,235,000	12,000,000	-5,235,000	906,405,000	
	3	15,075,000	12,000,000	-3,075,000	903,330,000	
	4	13,680,000	12,000,000	-1,680,000	901,650,000	
	5	14,175,000	12,000,000	-2,175,000	899,475,000	
	6	14,130,000	12,000,000	-2,130,000	897,345,000	
	7	14,850,000	12,000,000	-2,850,000	894,495,000	
	8	12,960,000	12,000,000	-960,000	893,535,000	
	9	11,745,000	12,000,000	255,000	893,790,000	
	10	10,710,000	12,000,000	1,290,000	895,080,000	
	11	12,195,000	12,000,000	-195,000	894,885,000	
	12	13,365,000	12,000,000	-1,365,000	893,520,000	
	13	15,615,000	12,000,000	-3,615,000	889,905,000	
	14	16,020,000	12,000,000	-4,020,000	885,885,000	
	15	16,200,000	12,000,000	-4,200,000	881,685,000	
	16	15,075,000	12,000,000	-3,075,000	878,610,000	
	17	14,085,000	12,000,000	-2,085,000	876,525,000	
	18	12,645,000	12,000,000	-645,000	875,880,000	
	19	13,365,000	12,000,000	-1,365,000	874,515,000	
	20	14,310,000	12,000,000	-2,310,000	872,205,000	
	21	14,175,000	12,000,000	-2,175,000	870,030,000	
	22	14,265,000	12,000,000	-2,265,000	867,765,000	
	23	14,310,000	12,000,000	-2,310,000	865,455,000	
	24	14,400,000	12,000,000	-2,400,000	863,055,000	
	25	14,220,000	12,000,000	-2,220,000	860,835,000	
	26	13,680,000	12,000,000	-1,680,000	859,155,000	
	27	12,555,000	12,000,000	-555,000	858,600,000	
	28	15,120,000	12,000,000	-3,120,000	855,480,000	
	29	14,985,000	12,000,000	-2,985,000	852,495,000	
	30	14,940,000	12,000,000	-2,940,000	849,555,000	-242,040,000
	31	5,445,000	12,000,000	6,555,000	856,110,000	

November	1	5,310,000	12,000,000	6,690,000	862,800,000
	2	4,500,000	12,000,000	7,500,000	870,300,000
	3	5,130,000	12,000,000	6,870,000	877,170,000
	4	3,150,000	12,000,000	8,850,000	886,020,000
	5	8,865,000	12,000,000	3,135,000	889,155,000
	6	4,905,000	12,000,000	7,095,000	896,250,000
	7	4,905,000	12,000,000	7,095,000	903,345,000
	8	5,265,000	12,000,000	6,735,000	910,080,000
	9	5,220,000	12,000,000	6,780,000	916,860,000
	10	8,055,000	12,000,000	3,945,000	920,805,000
	11	9,630,000	12,000,000	2,370,000	923,175,000
	12	9,585,000	12,000,000	2,415,000	925,590,000
	13	10,665,000	12,000,000	1,335,000	926,925,000
	14	10,350,000	12,000,000	1,650,000	928,575,000
	15	6,840,000	12,000,000	5,160,000	933,735,000
	16	10,800,000	12,000,000	1,200,000	934,935,000
	17	13,095,000	12,000,000	-1,095,000	933,840,000
	18	13,680,000	12,000,000	-1,680,000	932,160,000
	19	13,005,000	12,000,000	-1,005,000	931,155,000
	20	11,880,000	12,000,000	120,000	931,275,000
	21	11,970,000	12,000,000	30,000	931,305,000
	22	10,260,000	12,000,000	1,740,000	933,045,000
	23	8,460,000	12,000,000	3,540,000	936,585,000
	24	8,325,000	12,000,000	3,675,000	940,260,000
	25	6,165,000	12,000,000	5,835,000	946,095,000
	26	5,760,000	12,000,000	6,240,000	952,335,000
	27	5,940,000	12,000,000	6,060,000	958,395,000
	28	5,985,000	12,000,000	6,015,000	964,410,000
	29	6,615,000	12,000,000	5,385,000	969,795,000
	30	855,000	12,000,000	11,145,000	980,940,000
December	1	675,000	12,000,000	11,325,000	992,265,000
	2	315,000	12,000,000	11,685,000	1,003,950,000
	3	3,015,000	12,000,000	8,985,000	1,012,935,000
	4	2,970,000	12,000,000	9,030,000	1,021,965,000
	5	4,905,000	12,000,000	7,095,000	1,029,060,000
	6	4,995,000	12,000,000	7,005,000	1,036,065,000
	7	4,770,000	12,000,000	7,230,000	1,043,295,000
	8	4,905,000	12,000,000	7,095,000	1,050,390,000
	9	5,130,000	12,000,000	6,870,000	1,057,260,000
	10	5,265,000	12,000,000	6,735,000	1,063,995,000
	11	2,115,000	12,000,000	9,885,000	1,073,880,000
	12	540,000	12,000,000	11,460,000	1,085,340,000
	13	720,000	12,000,000	11,280,000	1,096,620,000
	14	990,000	12,000,000	11,010,000	1,107,630,000
	15	1,035,000	12,000,000	10,965,000	1,118,595,000
	16	585,000	12,000,000	11,415,000	1,130,010,000
	17	2,295,000	12,000,000	9,705,000	1,139,715,000
	18	765,000	12,000,000	11,235,000	1,150,950,000
	19	4,275,000	12,000,000	7,725,000	1,158,675,000
	20	2,475,000	12,000,000	9,525,000	1,168,200,000
	21	585,000	12,000,000	11,415,000	1,179,615,000
	22	4,185,000	12,000,000	7,815,000	1,187,430,000
	23	2,925,000	12,000,000	9,075,000	1,196,505,000
	24	180,000	12,000,000	11,820,000	1,208,325,000
	25	135,000	12,000,000	11,865,000	1,220,190,000
	26	180,000	12,000,000	11,820,000	1,232,010,000
	27	225,000	12,000,000	11,775,000	1,243,785,000
	28	225,000	12,000,000	11,775,000	1,255,560,000
	29	225,000	12,000,000	11,775,000	1,267,335,000
	30	225,000	12,000,000	11,775,000	1,279,110,000
	31	225,000	12,000,000	11,775,000	1,290,885,000

FRANKLIN, TN RECLAIMED WATER SYSTEM MASS DIAGRAM



Excess Supply

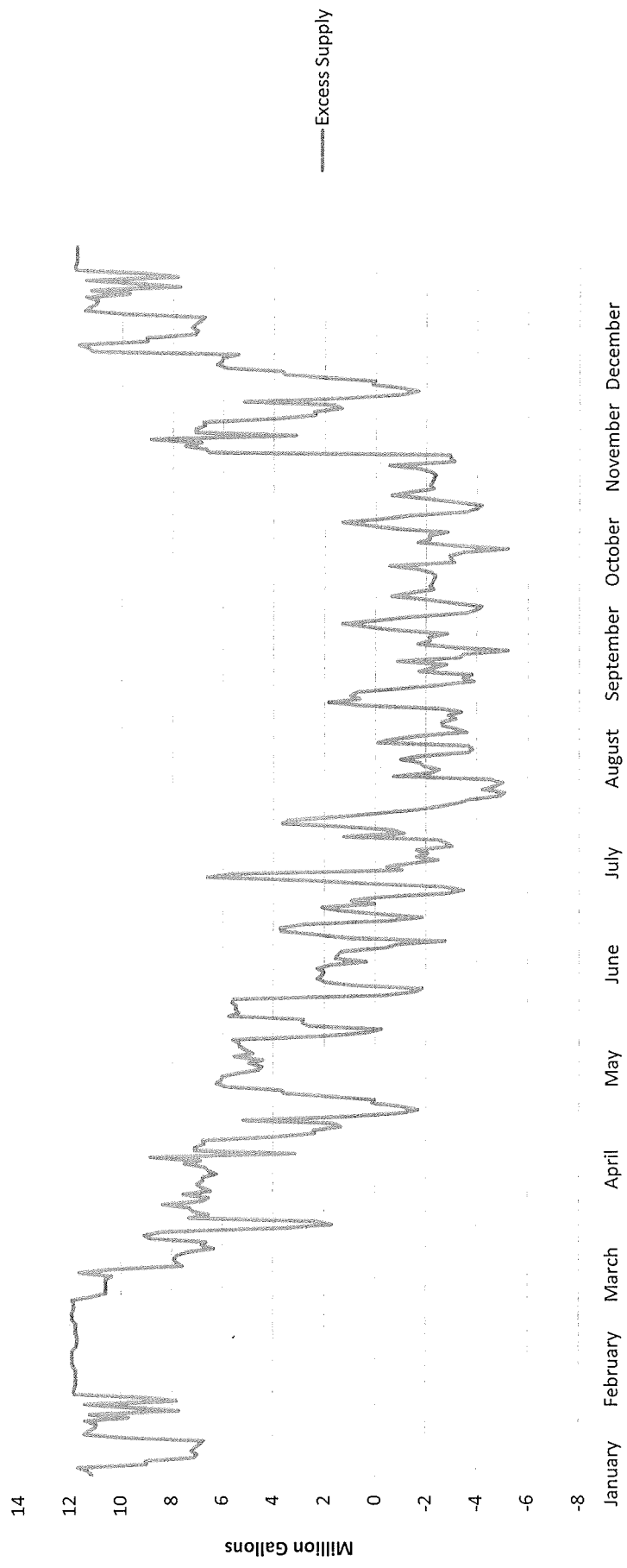


Table 2 lists existing system customers as of March 1, 2011. Average daily and maximum daily demands have been taken from reclaimed water sales records obtained from the City of Franklin where possible. Other flows are estimates based on potential irrigated area. However, some of the customers in this list have, after initial use, either cut back or discontinued use of reclaimed water because of significant rainfall or problems in their individual storage and on-site irrigation systems. It is anticipated during dry periods of the year that all eight of these customers will be on-line and using the water as shown in the demand chart.

Table 2

Franklin Reclaimed Water System					
Existing System Customers (as of 5/1/2008)					
No.	Name	Customer Type	Ave. Daily Demand (GPD)	Max Daily Demand (GPD)	Distribution Line
1	Legends Club	Recreational	500,000	2,100,000	Legends
2	Westhaven	Residential, Recreational	117,000	2,000,000	Westhaven
3	Franklin High School	Institutional	156,000	525,000	Westhaven
4	BGA	Institutional	150,000	385,000	Legends
5	Harpeth Village Merchants	Commercial	77,000	150,000	Westhaven
6	Carlisle Lane Residents	Residential	100,000	250,000	Westhaven
7	John Deere Landscaping	Commercial	385,000	1,300,000	Westhaven
8	Williamson County Rec.	Recreation	60,000	124,000	Westhaven
Totals			1,545,000	6,834,000	

Table 3 lists potential system customers for the existing Franklin reclaimed water system as of March 1, 2011. In re-evaluating the projected demands for these potential users, projections were revised based on a 2-inch per week irrigation rate, which is what many area golf course and park facilities use for irrigation rates of their green spaces. As a result, the average daily demand for these potential customers has increased to 3.76 mgd. The projected maximum daily demand has increased to 8.13 mgd for these potential customers.

In discussions with the design professionals who design cooling systems for large-scale buildings, it is known that water quality plays a significant role in longevity of the cooling tower equipment. Suspended solids and the presence of chlorine in cooling tower make-up water may have an adverse effect on pipes and pumps that are used in these systems. After an industrial customer purchases reclaimed water, it may be necessary to filter or provide chemical addition to water to make it more suitable for use as cooling tower make-up water. Given the significant cost savings of reclaimed water over potable water, individual industrial customers may find it advantageous to test the water for use in their individual cooling systems.

A new drive-by survey of the Columbia Avenue Industrial District revealed that Franklin is currently continuing to lose industries. The APCOM Corporation and Georgia Boot have both closed, and while the remaining businesses might use reclaimed water for irrigation of their lawns and open spaces, it is anticipated that most reclaim use would be seen as cooling tower make-up water for the buildings associated with these businesses. The complex previously housing the CPS Corporation is being partially used, but not for heavy industry. It is not anticipated that a large, heavy industry will occupy this location in the future.

A number of the listed potential customers are served by the West Reclaimed Water Line and Downs Boulevard Reclaimed Water Line. These two projects are currently under construction and are scheduled for completion by late May of this year. The existing residential subdivisions listed in this table are not yet equipped with a reclaimed water distribution system. For this reason, it is not anticipated that these subdivisions could easily connect to the reclaimed water system for irrigation purposes for individual households. However, open spaces and green spaces could be easily connected to the reclaimed water system at a more reasonable cost. Jim Warren Park and the Williamson County Soccer Complex are currently equipped with large-scale irrigation systems, and it is anticipated that both of these parks could change over to reclaimed water at a minimal cost.

Vulcan Materials, Williamson County Ready Mix, and Sherman Dixie Concrete are all industrial customers. It is anticipated that each of these businesses could connect to and use reclaimed water at a minimal cost and realize a significant discount for volume purchases.

Many of the potential customers listed could be served by the Goose Creek reclaimed water line and Five-Mile Creek reclaimed water lines which were completed in 2009. A

listing of these properties includes all the residential properties that are proposed for development along the southern border of Goose Creek. Some limited development has taken place at the Ladd Park and Stream Valley subdivisions. However, other properties are awaiting economic recovery before development continues. All of these development projects are listed in a 2009 Franklin Development Report prepared by the Franklin Planning Department, and it is anticipated that all of these properties will develop in the future.

Table 3

Franklin Reclaimed Water System					
Potential System Customers (as of 5/1/2008)					
No.	Name	Customer Type	Ave. Daily Demand (GPD)	Max Daily Demand (GPD)	Distribution Line
1	Fairways at Spencer Creek	Recreational	250,000	350,000	Westhaven
2	Pinkerton Park	Municipal	84,000	170,000	Southeast
3	Forest Crossing	Recreational	500,000	2,000,000	Southeast
4	Battlefield Park	Municipal	295,000	600,000	Southeast
5	Franklin Street Dept.	Municipal	100,000	200,000	Southeast
6	Columbia Avenue Industrial	Industrial	90,000	90,000	Southeast
7	FSSD	Institutional	25,000	50,000	West Line
8	Jim Warren Park	City Parks	100,000	200,000	West Line
9	Williamson County Soccer	County Parks	240,000	500,000	West Line
10	New Hope Academy	Institutional	20,000	50,000	West Line
11	Founders Point	Residential	100,000	200,000	West Line
12	Reid Hill	Residential	20,000	90,000	West Line

13	Williamson County Redi-Mix	Industrial	100,000	150,000	Downs Blvd
14	Vulcan Materials	Industrial	75,000	150,000	Downs Blvd
15	Sherman-Dixie	Industrial	100,000	200,000	Downs Blvd
16	Ladd Park	Residential	440,000	900,000	Goose Creek
17	Berry Farms	Mixed Use	330,000	680,000	Goose Creek
18	Stream Valley	Residential	250,000	500,000	Goose Creek
19	Rural Pains	Mixed Use	80,000	150,000	Goose Creek
20	Rheems Fleming	Mixed Use	75,000	100,000	Goose Creek
21	Nichol's Bend	Residential	100,000	150,000	Goose Creek
22	Lockwood	Residential	160,000	300,000	Goose Creek
23	Ag Center	Institutional	30,000	50,000	Goose Creek
24	Existing Residential (Redwing Farms Area)	Residential	200,000	300,000	Goose Creek
Totals			3,764,000	8,130,000	

Total Ave. Daily Demand: 5,309,000 gpd

Total Maximum Daily Demand: 14,964,000 gpd

Re-evaluation of average daily and maximum daily demands yield a total average daily demand for the Franklin reclaimed water system at 5.31 mgd with a total maximum daily demand of 14.96 mgd.